March 25, 2011 Marcellus Shale Advisory Commission Meeting Minutes

Call to Order and Welcome

Chairman Jim Cawley called the meeting to order at 10:30a.m. Chairman Cawley noted that there is a signup sheet for comment after the meeting. Chairman Cawley asked members of the public to limit their comments to two minutes and stated that they can also e-mail comments to: Marcelluscommission@state.pa.us, or log on to: www.state.pa.us, and enter keywords: "Marcellus Shale Commission" for more information.

Oath of Office for Commission Members

Chairman Cawley asked members to fill out and sign the oath form that has been provided. Deputy Secretary of State Thomas J. Weaver swore all board members in. Following the swearing in of the board members, Chairman Cawley thanked everyone for accepting the challenge of participating on this Board and then went over the basic responsibilities that Governor Corbett assigned for this committee: 1) provide recommendations to protect, conserve and enhance the environment and natural resources of PA including air, land and water; 2) provide recommendations to promote efficient, environmentally sound and cost effective development of our natural gas resources 3) address workforce development needs and opportunities, 4) address the needs and impacts of natural gas development on our local communities, and 5) recommend policies to encourage the end use of natural gas and natural gas byproducts.

Commission Member Introductions and Priorities

- Pat Henderson Governor's Energy Executive
- Gary Slagel Console Energy, representing the PA Independent Oil and Gas Association
- C. Alan Walker Acting Secy of DCED
- Barry Schoch Acting Secy of Dept of Transportation
- Terry Bossert VP, Office of Govt and Reg Affairs, Chief Oil & Gas
- Leann Murray PA Staff Atty, Ches Bay Foundation for Matt Ehrhart
- Ray Walker Senior VP, Range Resources and Chairman of Marcellus Shale Coalition
- (attended in place of Kip Allen)
- David Sanko Exec Director, PA State Assoc of Twp Supervisors
- Jeff Wheeland County Commissioner, Lycoming County
- James W. Felmlee President, PA State Association of Boroughs

- Cynthia Carrow VP, Government and Community Relations for Western PA Conservancy
- William Fustos representing Terrance Pegula, former Chief Operating Officer, East Resources
- Ronald Ramsey Senior Policy Advisor, PA Chapter of the Nature Conservancy
- Tony Bartolomeo Chairman, PA Environmental Council
- Gene Barr VP, Government and Public Affairs, PA Chamber of Business & Industry
- Jeffery Kupfer Senior Advisor for Policy and Government Affairs, Chevron
- Randy Smith U.S. Government Affairs Manager, Exxon Mobil
- Chris Masciantonio General Manager, State Government Affairs, U.S. Steel
- Robert Powelson Chairman, PA Public Utility Commission
- Glenn Cannon Director, PA Emergency Management Agency
- Dave Porges Chief Executive Officer, EQT
- Terry Engelder Professor of Geosciences, Penn State University, Dept. of Geosciences
- Vince Matteo President and CEO, Williamsport-Lycoming Chamber of Commerce
- Nicholas Haden Vice President, Reserved Environmental Services
- Christopher Helms CEO, NiSource Gas Transmission and Storage
- Richard Allan Acting Secretary, Dept. of Conservation and Natural Resources
- George Greig Acting Secretary, Dept. of Agriculture
- Mike Krancer Acting Secretary, Dept. of Environmental Protection

Discussion of Future Meeting Dates

Chairman Cawley discussed proposed future meetings and noted that April 15th will not be a meeting date. Chairman Cawley asked that members personally attend these meetings but if they cannot make it to contact Christopher Gray to accommodate an alternate.

Discussion of Working Groups

Chairman Cawley stated that the Working Groups have ambitious agendas for the next 120 days and that it makes sense to break down overall scope of work into more manageable subgroups. Chairman Cawley stated that four separate workgroups will be established, each with chair and vice chair, to work independently of this commission. Chairman Cawley appointed the following workgroups: 1) a Public Health Safety and Environmental Protection, Secretary Krancer to chair, Cynthia Carrow to vice chair; Economic and Workforce Development, Secretary Walker to chair, Gene Barr to vice chair; Infrastructure, Secretary Barry Schoch to chair, Chris Masciantonio to vice chair; Local Impact and Emergency Response, Glen Hammond (PEMA Director) to chair, Jeff Wheeland to vice chair. Chairman Cawley then circulated a sign-up sheet for members

to show their interest for which workgroups they would like to serve. Chairman Cawley continued that after the workgroups are established, the chairs and vice chairs will work with staff to agree on meeting dates and agendas.

An Overview: Environmental Law and Regulatory Requirements

Scott Perry, Director of DEP's Bureau of Oil and Gas Management, provided an overview of environmental law and regulatory requirements. Following the presentation, Patrick Henderson asked whether there is a correlation between gas migration and hydraulic fracking, and what the Department has attributed gas migration issues to as part of the well development process. Director Perry responded that the Department has never seen an instance where the fracturing has created a pathway to fresh groundwater; the instances the Department has seen with gas migration have been: over-pressured surface casing, wherein the gas pressure inside the well bore broke down the seat and caused gas to move up to the outside of the well into suppressed groundwater; two important ways to avoid this from happening are by: 1) reducing the pressure and 2) prohibiting the use of surface casing, except for limited circumstances; and shallow gas producing zones are encountered on the way to the producing formation. This is where the cementing practices in association with proper well case setting come into play—a properly cemented well completely isolates the formation and prevents gas from breaking down the cement and entering fresh groundwater. Director Perry added that the Department's new well construction regulations address these issues. Mr. Henderson asked Director Perry to elaborate on the drop off in production levels from well operations. Director Perry replied that the Department has done a smaller study of 15 vertical wells from 2005 to the present, which showed that during the first two years there was a more pronounced drop off than in later years. The Department has little data (about 18 months) for electronic submittals, but from this data expects the wells to produce gas for decades; however, it cannot be expected that they produce gas at the same levels consistently beyond the first couple years.

C. Alan Walker asked how large the permit review staff and inspector staff are. Director Perry replied that they have 78 oil and gas inspectors and water quality specialists and an additional 6 first-level supervisors for 84 people, which is at least a 50% increase from 2005. The permitting staff consists of a total of 12 people. There are also approximately 5 engineers per region to review the permits.

Ron Ramsey asked what opportunities there are to look at an applicant's plans from more of a regional level under the current permit review process. Director Perry replied that the Department does evaluate the well permits on a case by case basis and just because someone has a permit to drill does not mean they have a permit to build a site. The erosion and sediment control program also evaluates the project as a whole so we can see the broader plan development. The cornerstone of the erosion and sediment control program is to avoid the impact in the first place. Post construction, we also have requirements that water leaving the site is at no greater volumes than pre-construction.

The program itself has been designed to avoid accumulative impact with respect to erosion and sediment control.

Terry Engelder asked whether the Department has enough staff to handle the large number of inspections it will have to perform on all active wells and gas shales in the state 20-50 years from now when there will presumably be 150,000 active wells. Director Perry replied that each inspector averages 20 inspections per month and that we average three inspections per well during the construction period. Our staffing can be adjusted and the well permit fees that we charge can be adjusted by regulations, which is what has allowed the program to grow from less than 90 people in 2007 to 202 currently. We have more people than any other state other than Texas.

Chairman Cawley asked Director Perry to verify that the Department has the resources to regulate laws and inspections are backed and the public's health and safety are being protected. Director Perry replied yes. Chairman Cawley asked Director Perry how the Department's regulatory structure compares with other jurisdictions in the natural gas extraction industry. Director Perry replied that because of the recent work on Chapter 78 with well construction regulations and Chapter 95, which regulates the discharges, and constant evaluations of surface activities and air issues, we feel good about the foundation but recognize that it is an ongoing effort.

Secretary Walker asked at what point the Department will reach 100% of our natural gas needs in-state. Director Perry replied that in recent conferences, estimates have been that in perhaps as little as four years we could be a natural gas exporter, but the operators would probably have more recent numbers that would support or refute that information.

Economic Development Impacts and Opportunities

Tom Murphy, Co-director Penn State Marcellus Center for Outreach and Research, provided a presentation on Economic Development Impacts and Opportunities. Following the presentation, Patrick Henderson asked what Mr. Murphy's observations have been over the past few years in this industry in regard to industry, local community and educational institutions working together and what gaps there are that we need to take a look at. Mr. Murphy replied that since 2009 when we first started to develop the workforce and bring all the players together—i.e., trade association, agencies, academia, to identify what the gaps were in and try to get a more uniform package out there. There is now a process in PA called ShaleNet, which does a good job at creating an umbrella as to what that workforce effort could be in terms of it being more organized and Mr. Murphy suggested that that be a part of the discussion in more detail and believes that ShaleNet has solved a lot of questions such as where the locations of the training programs.

Secretary Walker asked Mr. Murphy to estimate when the Marcellus Shale field is developed. Mr. Murphy replied that most projections are between 15-20 years.

Matt Ehrhart asked whether Mr. Murphy has noticed any shifts in other sectors as the industry is growing, such as to agriculture. Mr. Murphy replied that we can expect to see a shift away from some intensive animal agriculture to other types of agriculture enterprises here in PA.

Jeff Wheeland asked for clarification as to what taxes Boroughs, Townships, and County Government derive from Marcellus. Mr. Murphy replied that earned income tax is paid to the Township where the worker lives.

David Sanko asked how the \$600 Million collected in state and local taxes gets divided. Mr. Murphy replied that he will check his notes and get back to him on that.

Tony Bartolomeo asked Mr. Murphy for his views on the development of infrastructure to support the jobs coming in during drilling, what happens to that investment when those jobs migrate to another area, how will it be cost-effective, will environmental impact be considered and will it be sustainable long-term job accommodations. Mr. Murphy replied that most are making that investment based on the numbers received at this point and time which illustrates that the economics will pay for that.

Gene Barr asked whether PA is considered an exporting state. Mr. Murphy replied that from the numbers he has seen that PA is a net energy importer when looking at all energy uses, but in the time frame that I mentioned it looks like we will make that switch to exporter.

Jeffery Kupfer asked whether Mr. Murphy would be able to quantify the impact on local communities, positive and negative. Mr. Murphy replied that money was put into seed grants at the Marcellus Center at University to explore Marcellus development aspects in PA, one of which was environmental impacts and the research and data is still being digested. The work should be completed within six months from now.

Chris Masciantonio asked whether power generation in natural gas would increase nationally or just within PA. Mr. Murphy replied nationally.

Rob Powelson noted that PA was one of the first five states in the country to deregulate our gas and electric markets and that consumers have saved millions of dollars due to the shale gas source. Since 1997 when PA deregulated, it has brought over 85 megawatts of new generation into the state, which is clean burned and sourced.

Glenn Cannon asked whether there has been any data collected on emergency response. Mr. Murphy replied that he can get Mr. Cannon the numbers on that.

Vince Matteo asked whether Mr. Murphy has encountered any problems for companies regarding the shift in jobs in the natural gas market. Mr. Murphy replied that these jobs need to be backfilled and there are financial impacts.

Nick Haden asked whether anyone knows how much energy a traditional well pad will yield when drilled. Mr. Murphy replied that it would depend on how many wells are on the property. Mr. Haden gave the example of 5-6 acres. Mr. Murphy replied that it would equal 25 billion btu's. Mr. Haden asked for 25 trillion btu's how much surface area has to be destroyed to get the equivalent of that in solar energy. Mr. Murphy replied that they have not run those numbers yet but you would have to factor in things like roads and pipelines and that we need discussion out there that factors in all the pieces regarding what the impacts are of any type of energy.

Christopher Helms asked what the impact the Marcellus Shale has had on the price of natural gas as well as the effects on the economy. Mr. Murphy replied that he has someone looking at that who can meet with Mr. Helms to discuss the specific details.

Economic Development Impacts and Opportunities (Part 2)

Teri Ooms, Executive Director, Institute for Public Policy and Economic Development, provided a presentation on research studies which focus on implications of economic workforce development as they pertain to the state as a whole as well as individual counties. Following the presentation, Mr. Henderson asked whether we can learn from other states regarding workforce development program what business might be susceptible to losing jobs due to the gas and energy industry. Ms. Ooms replied that the report contains data that shows specific types of occupations that are at risk such as: manufacturing, logistics, trucking firms, administrative/support staff, marketing/public relations.

Ray Walker asked when the PA interviews took place. Ms. Ooms replied that all of the PA interviews took place within the first four months of 2010.

Ron Ramsey asked whether specific information was provided as to what the costs were in regard to local impacts as a result of the drilling. Ms. Ooms replied that only general information was provided, such as: road and infrastructure, increasing public safety, and emergency management services.

Rob Powelson asked whether the counties in the study are adequately equipped to train future workers. Ms. Ooms said we only work with the northeast quadrant of the state has a strong higher education infrastructure and community colleges in place; the coordination between the educators, workforce development providers and the industry is what is missing at this point.

Vince Matteo asked whether the numbers are broken down by county. Ms. Oors replied yes.

Secretary Allan asked what Ms. Ooms is seeing in regard to the shift in the natural gas industry. Ms. Ooms replied that between 2000 and 2009 there was a decrease in logging and forestry businesses, including six different counties in PA, which may or may not be a result of the Marcellus Shale industry.

Chairman Cawley asked what Texas meant in the study by a "comprehensive tax structure." Ms. Ooms replied that Texas referred to business income taxes on a state level that it has in place.

Public Comment

Public comment was received from 2:00p.m to 4:30p.m. Many commentators expressed their concern over the impact of natural gas drilling, negative impacts on the Commonwealth's air, water, land, resources, their homes, communities, and livelihoods. Other commentators expressed concern and objected to the composition of the Commission.

Meeting Adjournment

The March 25, 2011, meeting of the Marcellus Shale Advisory Commission was adjourned at 4:30p.m.