PENNSTATE

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June 9, 2010

Mr. Drake Saxton, President of the Board
Responsible Drilling Alliance
P.O. Box 502
Williamsport, PA 17703

Dear Mr. Saxton:

Penn State President Graham B. Spanier has asked me to respond to your letter dated June 4, 2010 concerning the reports entitled *An Emerging Giant: Prospects and Economic Impacts of Developing the Marcellus Shale Natural Gas Play* by Timothy Considine and Robert Watson and its recent update entitled *The Economic Impacts of the Marcellus Shale Natural Gas Play: An Update* by Timothy Considine, Robert Watson, and Seth Blumsack.

Last year, the Marcellus Shale Committee, as you know, a consortium of natural gas drilling companies, asked Professor Considine, then a professor of energy and environmental economics in Penn State's College of Earth and Mineral Sciences, to conduct a study of the economic impact of the development of the Marcellus play on the Commonwealth. Shortly after the study began, Professor Considine departed Penn State for a position at the University of Wyoming.

Considine completed the study from Wyoming with assistance from Penn State emeritus professor of petroleum and natural gas engineering Robert Watson. The report of the study was provided to the Marcellus Shale Committee. Acting on behalf of the Committee, the Pennsylvania Natural Gas Caucus, headed by Representatives Tim Solobay (D-Washington) and Brian Ellis (R-Butler) formally released the study at a press conference on July 27, 2009. Professor Watson was on hand to answer questions.

Interest generated by the report led the Committee to commission a regular update by Drs. Considine and Watson. That is why *The Economic Impacts of the Marcellus Shale Natural Gas Play: An Update* was produced. Dr. Seth Blumsack, a Penn State assistant professor of energy and environmental economics, also participated as an author on the update. The update was released May 25, 2010.

We carefully reviewed the results of the initial study and the way that it was conducted and released to the public. As to scientific rigor, while the assumptions underpinning the analysis in the paper may certainly be debated, the analysis based on those assumptions is sound and does not appear to have any significant flaws. The main part of the economic analysis is based on a respected and much used input-output model known as IMPLAN. Our finding on scientific rigor from the first report also holds for the recently released update.

In the initial version of the earlier report, we found flaws in the way that the report was written and presented to the public. First, the report did not identify the sponsor of the research, which is a clear error. As a matter of policy, all publications emanating from externally sponsored research at Penn State are required to identify the sponsors of the research. Second, the authors could and probably should have been more circumspect in connecting their findings to policy implications for Pennsylvania, and may well have crossed the line between policy analysis and policy advocacy. In particular, the prose in the section dealing with the potential effects of a severance tax on drilling rates in Pennsylvania should be more scholarly and less advocacy-minded. Moreover, the authors should have made their points without being adversarial to the Governor.

Penn State's name and logo should not have been prominently featured in the report as they were; in the initial version of the earlier report, the Penn State logo appeared on every page. That probably incorrectly gave an impression that the analysis and findings are positions of Penn State. Penn State does not take a position with respect to research conducted by its faculty members. Penn State does, however, provide an objective haven for faculty members to conduct research on controversial topics and to release results of that research regardless of whether or not those results support the positions of special interests.

Based on the above, the university retracted the initial version of the report and reissued a newer version which clearly indicates the source of funding for the study and that the findings expressed do not represent positions of Penn State. At my direction, the authors were asked to remove the Penn State logo from all but the cover page, as is Penn State policy. That direction was accommodated. The handling of the logo notwithstanding, the authors are entitled to list their affiliations in the report. We have recommended substitution of Marcellus Shale Committee report for Penn State report. The latter is simply incorrect usage. However, the Committee is under no obligation to accept our recommendation.

The recently released update, *The Economic Impacts of the Marcellus Shale Natural Gas Play: An Update,* followed all Penn State publication guidelines, therefore, no changes were necessary for the report.

Penn State is third in the nation among major research universities in the amount of industry-sponsored research being performed by our faculty. Faculty members conducting that research are under no obligation or expectation to produce results that favor the sponsor. We are sought by industry because we have record of producing the very best science and engineering.

We appreciate your writing us with your concerns and I hope that you find my explanation to be satisfactory. Of the thousands of studies conducted by the faculty and students of the College of Earth and Mineral Sciences under the auspices of Penn State, almost without exception, they meet the highest standards of scholarly excellence. We take seriously our role as objective arbiters of complex scientific and technical issues. Please let us know if you have further questions or concerns about this report or any other issue.

Sincerely,

William E. Easterling

William E. Easterling, Dean

xc: G. Spanier, H. Foley, A. Scaroni, Y. Yeboah