



New York State Assembly Committee on Environmental Conservation

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Comments on September 2009 SGEIS (Economic Impact)

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As an economist with thirty-five years of experience, I am shocked and dismayed by the poor quality of analysis and the disregard for important factors in the discussion of economic impact in the recently released New York State draft Supplemental Generic Environmental Impact Statement (SGEIS) for potential natural gas drilling activities in the Marcellus Shale formation.

On Page 6-139, it is stated under the section on Community Character Impacts that “many of the community character impacts associated with horizontal drilling and high volume hydraulic fracturing are the same as those addressed in the 1992 GEIS, and no further mitigation measures are required.” The SGEIS did not improve upon the deficiencies that were pointed out in connection with the 1992 GEIS. Instead, the SGEIS cites the 1992 GEIS as the basis for its conclusions regarding economic impact. In addition to the 1992 GEIS, the SGEIS cites an economic impact study done for Broome County and also a study done by Penn State. There are very serious and basic problems with each of these studies.

I will point out just some of the problems with each of these reports.

The 1992 GEIS

All analysis for the 1992 GEIS appears to have been done in the 1980s. The main report (in three volumes) is titled DRAFT Generic Environmental Impact Statement and was printed in January 1988. The FINAL Generic Environmental Impact Statement is only one volume, and it primarily provides a summary of the public comments on the DRAFT report. I did not notice any public comment on the topic of economic impact. Note that the FINAL is dated July 1992 and it was reprinted without revision in 2003.



The following observations are based on my reading of the economic impact section of the 1992 GEIS:

1. The analysis and report are dated January 1988, and are therefore terribly outdated. No decisions should be based on such outdated analysis. The economy has changed dramatically in the last 20-plus years; and the oil and gas market of the 1980s is very different from that of today. The analysis of 1988 seemed to focus predominantly on the oil industry. The economic impact analysis must be updated to reflect the current market and economy, and it should reflect accurately the actual industry and product being considered.
2. The outdated report states that the multiplier effect is 1.4, meaning that for every \$1.00 of well/drilling output; \$1.40 is contributed to the State's economy through both direct and indirect effects. The report states "*the reported earnings multiplier of 1.4 for the oil and gas industry in New York is lower than many manufacturing and service industries, partly because the industry as a whole is not labor intensive, and also because most of the companies which provide services to the industry in New York are headquartered in nearby Pennsylvania.*" If an updated economic impact analysis were to find a similar multiplier, then it would appear to make more sense to encourage an alternative industry that would provide a greater economic impact in the Catskills and in New York State generally. If an updated and more accurate analysis were to conclude that the multiplier effect of gas drilling is as great as or greater than that of other industries, then there may be an economic reason to encourage gas drilling. The analysis done to date indicates that based on economic impact alone, gas drilling should not necessarily be encouraged, particularly if the adverse environmental effects of gas drilling could prejudice other industries, such as tourism and outdoor sporting, which might in fact have higher multipliers.



3. Input/output tables that are used for economic impact analyses generally are not calibrated to reflect environmental effects, and certainly in the 1980s, such impacts were not properly considered. More recently, there has been an attempt by economists to encourage the Bureau of Economic Research (BEA) of the Department of Commerce, the keeper of the National Income and Product Accounts, upon which the input/output tables and multipliers are based, to become “green.” The input/output tables and multipliers are updated on a fairly regular basis. The latest available from BEA are based on 2005 national and regional data, so clearly the economic impact analysis in the GEIS does not reflect the most recently available tables. It is my understanding that even the more recent 2005 tables do not properly capture the environmental and natural resource economic impacts.
4. The report mentions environmental issues, but makes no attempt to value them. The report states,

“Unfortunately, it is difficult to assign precise monetary values to aesthetic benefits such as the beauty of an unspoiled wilderness. The monetary value for improvements in such areas as clear air, clean water, and clean soil are easier to estimate and assign by using parameters such as increased property value, decreased health care costs, increased recreational and tourist use, and improved production from forestry, fishery and agriculture.”

I question why none of these parameters were estimated. A thorough analysis should evaluate each of these. The report even states *“Most experts in this field agree that in most cases it is much cheaper to prevent pollution than to restore the environment after it has occurred.”*

Clearly, the economic impact analysis performed in 1988 and reflected in the 1992 GEIS is incomplete and inaccurate for application in 2009 and beyond.



The Broome County Study

The study done for Broome County is fraught with problems. I summarized some of the problems in a letter to members of the Broome County Legislature and I repeat my summary here. . This study fails to adequately address a number of factors that must be carefully considered in order to make informed decisions regarding gas drilling. These include:

1. The analysis did not appear to take account of the economic cost of building and repairing infrastructure due to the wear and tear on the roads, public buildings and other structures. This can be a significant expense for rural towns. As a result of the Millenium Pipeline, the small town of Cochecton suffered road damage in excess of \$1million, a large sum for such a small town. While the Millenium Pipeline followed a single path, multiple well sites spread throughout a town could have an even more devastating impact on infrastructure.
2. The analysis did not address the cost of mitigation as a result of environmental damage, including but not limited to drinking water contamination and fish kill. The Community Science Institute of Ithaca, New York, recently estimated that anywhere from 1 to 5% of water wells that are in the vicinity of gas wells will become contaminated. The Penn State Cooperative Extension put the figure at 8%.
3. While the study touts the use of input-output models, and I recognize that such models are typically used to estimate economic impacts (including direct, indirect and induced impacts), these models do not capture economic impacts that result from environmental damage or natural resource use, so the positive economic impacts estimated in this analysis of Broome County are, at the very least, exaggerated. The actual net economic impact may, in reality, be negative.
4. Full economic costs to the region, such as the potential for a decline in property values and an increase in health costs, are not reflected. In



- fact, the assumption in this report seems to be that property values will increase. It is quite possible that the reverse would occur as many well workers are transient and non-permanent, and existing residents may be driven out due to an increasingly industrial landscape. Far fewer retirees will choose to settle and second home- owners would certainly be vastly reduced in number.
5. Declines in other industries are not reflected in the net economic impact. The tourism industry would be negatively affected, as well as the sport hunting and sport fishing industries, due to both the declining natural beauty of the area, increased environmental damage, and the potential declines in fisheries and wild game.
 6. The analysis focuses on a 10-year horizon that seems to be the expectation for gas extraction in the Marcellus Shale, and it ignores the longer term. This is a myopic view. What happens to the regional economy when the gas is gone in 10 years and the land and streams, etc. are polluted?
 7. Other studies have shown that gas drilling is not an optimal industry on which to base an economic development strategy. I refer you to a study, "Fossil Fuel Extraction as a County Economic Development Strategy: Are Energy-focusing Counties Benefiting?" prepared by the firm, Headwater Economics, and released in September 2008. This study analyzed the economic health of counties in Western states in order to compare the economies of counties that focused on fossil fuel extraction as a strategy of economic development to the economies of counties that did not focus on such industries. The conclusions are that "while energy-focused counties race forward and then falter, the non-energy peer counties continue to grow steadily...Counties that have focused on broader development choices are better off, with higher rates of growth, more diverse economies, better-educated populations, a smaller gap between high and low income households, and more retirement and investment income."



8. The analysis uses the IMPLAN input-output model, which by its construct assumes that all of the population (new and old, and low income and high income) would have identical patterns of spending. Such an assumption overestimates the multipliers and the resulting economic impact if the new employees are part-time residents or have their families staying in other areas, which I understand to be a fairly frequent situation for gas drilling workers. In fact, as reported in the Morning Times, Terrie Swift, executive director of the Sublette County Chamber of Commerce in Sublette County, Wyoming, said that the economic impact of the transitory workers living in temporary housing quarters has been, if anything, impermanent. “At that level of employment with the gas company we don’t see a lot of people moving permanently,” she stated. “There’s not a lot of incentive for them to move their families because it’s not the nature of their profession to stay in one place...(drillers) are a level of the workforce that is the most short-term, and I think it’s not in the nature of the business for them to stay.”

It is unfortunate that several important and potentially negative economic impacts are not directly quantifiable, but this makes it even more important to be sure that they have been considered as carefully as possible.

The Penn State Study

The Penn State Study was done for the Marcellus Shale Committee and the House Natural Gas Caucus. The Marcellus Shale Committee is a membership organization comprised of natural gas companies and its member companies provided the underlying economic data for the study. This indicates a highly biased study. It is imperative that an independent analysis be conducted of economic impacts of such a potentially economically and environmentally devastating activity.

An additional worrisome economic impact issue is the fact that multiple times in the SGEIS, the New York State DEC calls for action by local governments. For example, the DEC expects municipalities to monitor the DEC website, to be pro-



active in completing road system integrity studies, to attain road user agreements, to have county health departments undertake well investigation, etc. The costs of such activities at the local level may be substantial and they have not been included in any of the economic impact studies or estimates.

As each study referenced in the SGEIS has serious deficiencies, it is impossible to reach legitimate conclusions regarding the economic impact of gas drilling in the Marcellus Shale at this time.

Respectfully Submitted by Jannette M. Barth, Ph.D.

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