October 20, 2011

Dear Ms. Seelye,

Your recent report, "Gas Boom Aids Pennsylvania, but Some Worry Over the Risk," tells only part of the story.

As an economist who has studied these issues and been contacted by you prior to this article, I was surprised that you did not mention any of the negatively affected individuals in Pennsylvania that I had given you, after you had requested them from me. I am sure that many of them would have been happy to be interviewed. However, anecdotes of one or two individuals benefitting or having detriments do not make for an accurate economic analysis of gas drilling. The fact that one farmer can buy a new tractor with his royalty check or that one family's well is polluted is no substitute for an unbiased, thorough study of integrity that assesses all costs and benefits, public and private. Such a study has not, so far as I am aware, yet appeared.

The problem with gas drilling, much like the problem with the subprime mortgage industry, is that benefits and costs are borne disproportionately. I'm sure some areas, especially Wall Street, welcomed subprime mortgages because there were huge profits there, and there were lots of jobs for banks, loan originators and real estate appraisers. The overall cost of the whole system tumbling down and having to be rescued with public funds was not factored in, nor was the human cost of foreclosure, job loss and collapsing aggregate demand. Most of the benefits went to a few, but in the end the ultimate costs were largely borne by taxpayers. The same could be the case with shale gas drilling where there are private benefits and public costs. Most of the benefits are to three groups (gas companies and their shareholders, a few large landowners, and those who will benefit from jobs in the short-term boom). But local communities and taxpayers across the state may bear the burden of significant costs which may well exceed any revenues received by the state or communities from gas drilling. In both cases, one culprit was and could be inadequate regulation and inadequate mechanisms for those who reap the benefits to bear the costs. The other is the utter failure of the press and politicians to obtain, analyze and disseminate accurate information.

When gas industry representatives claim that gas drilling in the Marcellus Shale will be great for the economy, they are misleading the public in order to paint a rosy picture so that they can reap high profits at the expense of our environment, our public health and our economy.

The industry ignores or downplays significant costs and exaggerates benefits, and your reporting follows suit. You did not sufficiently explain the many negative impacts likely to take place as a result of shale gas extraction, and you exaggerated the economic benefits.

Independent, unbiased research shows that the only parties likely to benefit financially in the long-run from shale gas extraction are the gas companies and a very few lucky and large landowners.

There is no question that some jobs will be created in the short-term, but many of these jobs are exactly that, short-term. Many are also only part-time. Many of the gas workers are imported from other states on a transient, non-permanent basis. Some estimates in Pennsylvania are that as many as 70% of the Marcellus workers are from out of state. Such transient workers send their wages to their families in their home states rather than purchasing homes and making long-term contributions to the economy of Pennsylvania.

Declines in other industries are likely to result from a combination of pollution, a shift to an industrial landscape and "crowding out". Examples of industries likely to be negatively affected include agriculture and tourism.

There will be wear, tear and damage to infrastructure, especially roads and bridges, and this has been a major cost to taxpayers in other regions with shale gas extraction, such as the Fayetteville Shale in Arkansas. New York's Department of Transportation has prepared an internal memo noting these costs and the lack of any existing mechanism to defray them.

The costs of drinking water contamination and land, stream and air pollution may be substantial. Various contaminants in the fracking fluid and the flowback fluids are endocrine disruptors and carcinogens. The economic costs of treating birth defects and serious diseases must be considered.

There will be costs to communities associated with the increased demand on hospitals, police, fire departments and emergency health services. A recent presentation by a hospital administrator in Bradford County, Pennsylvania, where hydrofracking is proceeding intensively, summarizes many negative community impacts that will be costly, including for example, increased industry related injuries and exposures to dangerous frack fluids, increased traffic and related traffic accidents, and increased reports of illegal drug use. ("Local Experiences Related to the Marcellus Shale Industry," Staci Covey, President, Troy Community Hospital, May 10, 2011)

Likely declines in property values are ignored. Supporters of gas drilling say that property values will increase. Rental rates will probably increase due to the influx of transient workers, and hotel occupancy rates may increase. We have seen this happen in Pennsylvania. The value of large tracts of land may increase, but single-family homes and small lots will probably decline in value. Reports indicate that some banks are not giving mortgages for properties with a gas lease or even for properties nearby leased land. How can one sell a house if a buyer can't get a mortgage or if the house has contaminated drinking water? Also, some insurance companies are refusing to issue policies on homes with gas wells. Who would buy a house knowing homeowner's insurance would be unobtainable?

It was reported that in Wise County, Texas, where gas drilling takes place in the Barnett Shale, the Central Real Estate Appraisal District decreases values of homes by 75 percent when a gas well sits on the land. Remember that if property values decline, so do property tax revenues.

There is no mystery as to what will happen to the affected communities when the gas is gone and they are left with contaminated drinking water, pollution, an industrial landscape, a population with failing health, and vanished employment opportunities.

Headwaters Economics, an independent, non-profit research group, compared the economic health of Western counties that focused on fossil fuel extraction as a strategy for economic development to neighboring counties that did not. It concluded that counties that were **not** focused on fossil fuel extraction experienced higher growth rates, more diverse economies, better-educated populations, a smaller gap between high and low income households, and more retirement and investment income.

An academic study published in Sociological Inquiry concluded that unemployment and poverty worsened in mining counties in non-metropolitan regions. **It found that the highest levels of long-term poverty are in places where there was once a thriving extractive industry.**

("Mining the Data: Analyzing the Economic Implications of Mining for Nonmetropolitan Regions," Freudenburg, in Sociological Inquiry, 2002.)

A very recent peer reviewed article in the academic journal Ecological Economics concludes that the industry funded economic impact studies of shale gas extraction are overstating the economic impacts, and it is very important to have accurate estimates for the functioning of the state economy. ("The economic impact of shale gas extraction: A review of existing studies," Thomas C. Kinnaman, Ecological Economics 70 (2011) 1243-1249.)

Another study not funded by the gas industry is being conducted by Dr. Susan Christopherson at Cornell University. Dr. Christopherson says that the gas industry is "a speculative, high risk, short term industry" and that the shale play is likely to create a short-term boom followed by a long-term bust.

The oil and gas industry has a record of booms and busts. Extractive industries are known for the boom/bust cycle. Nobody disagrees that there will be short-term jobs created, including jobs on drilling sites and ancillary jobs such as truck drivers, welders, road workers, hotel and restaurant workers, and even suppliers of alpaca socks. The questions are: How many are long-term, full-time jobs? How many are good jobs? How many of these jobs will be filled by local residents? How long will these jobs last?

Another negative impact that is rarely mentioned is the foregone economic development due to the vast network of pipelines that will be required. In both Texas and in Bradford County, potential future development may be destroyed in many communities because building cannot take place on top of or too close to pipelines. Large, winding spider webs of gas lines from drilling pads to transmission lines may very well prevent communities from building and developing into the future.

A fact that many don't realize is that small towns are much more exposed to the economic risk. Small towns have small budgets, a small taxpayer base, and little diversity.

You should also be aware of the fact that communities with the actual well pads are not the only communities that will be impacted in a negative way. Nearby communities without gas wells will have related industrial development such as water treatment facilities, staging areas, man camps, and pipelines. These communities will also have costs associated with heavy industrial development and a long-term bust, even if there is no drilling going on there.

The economic impact is unlikely to be worth the risk of the potentially severe and in some cases irreversible consequences in the form of health, environmental and infrastructure degradation.

If you are interested in doing a follow up story, I would be happy to resend you citations to independent, unbiased research, in addition to those provided above.

Best regards,

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and Director, Catskill Citizens for Safe Energy