

A Look at Marcellus Shale and Jobs

by Sue Smith-Heavenrich

Broader View Weekly, August 4, 2011

About two weeks ago NY State Senator Tom Libous sent out an email to members of his “Safe Drilling Now” email list-serve. “A new report from the Business Council of New York’s Public Policy Institute (PPI) shows that Marcellus Shale development could lead to a total of 62,620 new jobs in the Southern Tier,” he wrote.

The 24-page report, titled “Drilling for Jobs” claims that drilling as few as 300 Marcellus Shale gas wells per year has the potential to generate more than 37,500 jobs annually in New York. Critics argue that the models used to generate reports like the PPI’s are based on simplistic models rather than actual job creation data.

PPI Report

Marcellus exploration and production has generated 48,000 jobs in the last couple years, write PPI report authors Robert Lillpopp and Sonia Lindell. It’s an oft-cited figure, generated by industry-funded studies. Will NY see the same kind of job creation, they ask? To generate projections for NY, Lillpopp and Lindell use an estimate of 31 direct jobs-per-well and a 3.04 multiplier generated from a computer model.

Assuming Marcellus operators restrict their activities to a five-county area outside the NYC watershed, Lillpopp and Lindell write that drilling just 500 wells each year that would directly create more than 15,000 jobs. Once they incorporate the multiplier they come up with an additional 47,000 or so jobs, resulting in a total of 62,620 jobs created per year.

But, caution the authors, “anti-drilling apprehension has delayed shale gas exploration in New York State.” Lillpopp and Lindell urge NY to move swiftly in order to take advantage of the “transformative opportunity” that has been documented in PA. They then analyze the wages and jobs created south of the border.

Gas exploration, they note, provides high paying jobs – an average wage just over \$79,000 – compared to the average private sector wage in upstate New York of \$39,000-plus. The average yearly wage for an employee in the gas industry is about \$73,160; roustabout jobs bring in \$27,980 per year while petroleum engineers see an average annual income of \$95,660. Chemung County is already seeing some wage benefits, write Lillpopp and Lindell. The average wage for oil and gas sector workers is more than \$115,000 – three times the county’s private sector wage of \$37,650.

People don’t have to work in the industry to get rich, note Lillpopp and Lindell. Signing bonuses of \$2,000/acre are “not unusual” they say, and landowners can receive up to 12.5 percent royalties (12.5% is the minimum in NY; landowners may receive more depending on their lease terms).

Local governments benefit, too. Lillpopp and Lindell estimate that a single Marcellus well in Owego “would generate \$190,300 in combined real property tax revenue for the county, town and school districts”. Five hundred wells a year translates into \$1 billion in annual tax revenues for local municipalities.

There’s only one problem with their projections – the numbers.

Jobs Data Tell Different Story

Stephen Herzenberg, of the Keystone Research Center in Harrisburg, PA, says industry projections of how many jobs are created by Marcellus drilling is hugely inflated. “Actual jobs data tells a different story,” he says.

The 48,000 figure refers to new hires, Herzenberg explains. “That’s not the same as jobs created because many new hires replace workers who have quit, been fired or retired. During the same period of time that

the Marcellus core industry and ancillary industries reported 48,000 new hires, the entire state of PA saw 2.8 million new hires. Marcellus and related businesses are responsible for only 1.7 percent of all new hires, or one out of every 59 new hires.

What people need to look at is data that directly measures employment and jobs, says Herzenberg. Doing that, he found that Marcellus industries created closer to 9200 jobs – less than 10 percent of all jobs created in the state. During that same period of time, though, Herzenberg discovered Marcellus ancillary industries lost around 3600 jobs, leaving a net gain of 5670 jobs.

“In an economy with a job shortage, any growth is welcome,” Herzenberg writes – even if it is only a fraction of the number projected. He admits that Marcellus drilling is making a “small positive contribution” to recent job growth in PA. The problem says Herzenberg, is that the size of that contribution has been substantially inflated because people depended on models and failed to look at the real data.

“The modest contribution of Marcellus Shale to job growth must also be balanced against the impact of drilling on other industries, such as tourism and the PA hardwood industry,” writes Herzenberg. “It is also important to balance the contribution of Marcellus Shale to job growth against the so-far unfunded environmental liability of the industry.”

SIDEBAR:

Jobs in the Marcellus Gas Field

It takes a lot more than a drilling rig to extract, produce and ship Marcellus Shale gas to market. Here are a few of the industries involved:

Marcellus Core Industries

- Liquid extraction
- Drilling wells
- Support activities for gas operations (fracking, cementing, etc)
- Pipeline construction
- Compressor and related construction

Marcellus Ancillary Industries

- Power generation
- Gas distribution
- Highway, street and bridge construction
- Gravel pits
- Iron and steel manufacturing
- Gas field machinery and equipment manufacturing
- Truck drivers
- Leasing agents
- Geophysical surveying and mapping services
- Testing laboratories
- Environmental consulting services
- Remediation services
- Machinery and equipment repair
- Administration
- Legal and regulatory oversight