Gas Drilling, Sustainability and Energy Policy Part 1: The Economic Impacts of Marcellus by Sue Smith-Heavenrich *Broader View Weekly*, April 14, 2011

More than 500 scientists, environmental attorneys, gas industry representatives and others, some from as far as Colorado and Texas, participated in the Cornell Environmental Law Society's energy conference held April 1 - 2. This year's conference focused on gas drilling, sustainability and energy policy with the hopes that people from all sides of the issue could find some common ground. Or at least listen to what each other has to say in a respectful manner, explained Ben Tettlebuam, second-year law student and conference organizer.

This is the first in a series of four articles covering the sometimes heated discussions during the conference. During a pre-conference discussion with some of the speakers, it was clear that finding common ground could be more difficult than anticipated.

Too often the issue is presented as a choice between gas and coal, said Bill Podulka. Podulka, who chairs Residents Opposing Unsafe Shale-gas Extraction (ROUSE), would like to see the conversation expanded. In the ten or twenty or even thirty years it takes to fully develop the Marcellus shale, we could be developing renewable energy sources, he points out.

"There is a mis-perception that these technologies aren't ready," Podulka said. But there are offthe-shelf technologies for wind and solar that, if implemented now, could provide up to 15 percent of this country's energy needs. "The problem is where the capital comes from," he noted. "Right now the money is being invested in gas. Government investment in alternatives would buy us a healthier society."

"I categorically deny that" interjected Michael Joy, an attorney who represents and promotes gas industry interests through the Independent Oil and Gas Association of NY (IOGA-NY). Gas, he stressed, needs to be part of whatever "energy suite" policy makers consider. Renewables might potentially contribute 2 to 10 percent of energy needs, but the big stumbling block is lack of storage.

Norse Energy Vice President Dennis Holbrook seconded that, explaining that as attractive as renewable energy looks, it just isn't reliable enough for companies to add to their energy portfolios. Battery storage is the problem, he said. Even with government subsidies it will take decades before those energy sources become reliable. Holbrook admitted that his company is heavily invested in gas, drilling into the Herkimer sandstone beneath Madison and Chenango counties. "But we're not drilling for Marcellus," he said. "And we're not fracking."

One of the overarching issues throughout the conference was the impact of drilling on land use. Cornell Engineering Professor Tony Ingraffea noted that while NY has a long history of drilling, the industrialized nature of unconventional drilling is significant. "The first 1,000 high-volume hydro-fracked wells will consume more water than all the previous wells drilled in the state," he said. Susan Christopherson, professor of city and regional planning, added some economic perspective to the discourse. During her keynote address she noted that drilling affects everything in a community, from traffic and police to housing and community health.

"There are so many uncertainties," Christopherson said. "We don't know what all the risks are, or who will bear them." What we do know is that the roads will be heavily impacted by the increased traffic.

Shale drilling, Christopherson explained, is driven by the market. The industry is debt-driven and looking for commercially viable wells and that will determine where they drill and how long they remain in a locality. Like the financial services, shale drilling is "a speculative bubble", Christopherson said, "but one with serious environmental consequences".

Drilling impacts are driven by the pace and scale of development. "We should plan for a shortterm intensive boom/bust cycle, as well as the impact of building an infrastructure to get their [gas] product to market," Christopherson said. She said municipal and state officials need to think beyond the well pad and consider cumulative impacts of industrialized drilling activity.

"There will be increased public safety costs," Christopherson said, pointing to the correlation between the need for more police and shale gas drilling. Other community impacts include increased costs for health and education services, and increased demand on public administrative services such as permitting and zoning officers, and an increased need for environmental remediation and monitoring.

"There is one occupation that has benefitted," Christopherson said, "lawyers."

Communities that don't experience drilling may still feel the impacts. Ithaca will see increased truck traffic, and Watkins Glen is already seeing development of an industrial site for storing liquefied gas and petroleum products. There will be more, she said: pipelines, man camps, water withdrawal sites, compressor stations, truck depots, rail spurs and "trucks, trucks, trucks!"

The big question: are we prepared for the bust? "It will surely come," Christopherson warned, "because once the gas is gone, it is gone." And the rural areas will be the ones hardest hit by the boom/bust cycle. The increased housing costs will push out traditional residents; the demand for truck drivers will push the cost of milk production higher as farmers compete with gas companies for drivers.

Resource extraction works against diversity in local economies, driving out small businesses that do not cater to the gas industry. Tourism, in particular, depends on availability of lodging and restaurants. There will be increased economic inequality, Christopherson said.

But communities can take steps to minimize these cumulative impacts. The most important thing, Christopherson said, is to slow the pace of development. That will allow communities to absorb and spread out the impacts. Communities also need to cooperate with each other. Christopherson also challenged the state to take the lead by establishing policy that regulates and monitors the gas industry. The state needs more transparency, too, regarding where drilling happens and when and where spills and incidents occur.