

Sounding Off on the Economy of Natural Gas from Shale Development

Hydraulic Fracturing Digest

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Last month, two *New York Times* articles turned heads and bruised egos by questioning the long-term profitability of natural gas extraction from shale deposits. Now, energy companies, the federal government and the *Times* itself are pushing back against the assertion that the burgeoning shale gas industry is uneconomical.

The articles, part of a series on the effects of hydraulic fracturing (fracking) and drilling for shale gas, cited anonymous internal emails and documents from the Energy Information Administration (EIA), a division of the Department of Energy that estimates increasingly large stockpiles of domestic natural gas. In the communications, employees remarked that these estimates vastly overstated the amount of gas that companies could economically produce from shale. One of the articles by *Times* Reporter Ian Urbina implied that the EIA, whose reports are supposed to be independent, relied heavily on research from consultants who parroted energy company data. While energy company CEOs were touting the promise of shale gas investment, the articles asserted, geologists and analysts were quietly analogizing to the dot-com and real estate bubbles.

Energy companies were quick to return fire. Chesapeake Energy CEO Aubrey McClendon sent an email to employees panning the articles. "How can shale wells be underperforming if shale gas companies are beating their production forecasts and as U.S. natural gas production has recently surged to record highs?" McClendon asked. ExxonMobil, the largest natural gas producer in the United States, bristled at the *Times'* failure to contact it for comment and dismissed the assertions as baseless. The company's vice president of public and government affairs noted that ExxonMobil acquired XTO and other shale gas ventures with an eye toward long-term investment, not instant profit from the day-to-day fluctuation of gas prices.

ExxonMobil and other energy giants have been acquiring small to midsize shale gas ventures at a breakneck pace. Observers note that the shale gas industry is in transition to large-scale operations. Smaller independent producers undertook the initial exploration, and major energy players are now buying them out. Meantime, private equity investors are providing capital to the independent producers as a means to gain a foothold in the burgeoning market. Several of the independent exploration and production companies are looking to private equity to fund drilling and production on leases they acquired early on. All are banking on natural gas as the "bridge fuel" between oil and coal and renewable low-carbon energy sources such as wind and solar.

Fracking, the process of injecting water and chemicals under high pressure to fracture the gas bearing shale and release natural gas, has gained the ire of environmentalists. Activists allege that fracking fluids can contaminate drinking water, but efforts to regulate the industry have stalled amid disputes over terminology and scientific causation.

Even before the *Times* published Urbina's articles, the EIA sent Urbina a letter of response explaining that the agency acknowledged the risk inherent in its projections, but that its raw data shows shale gas production increased from 4 percent to 23 percent of all natural gas produced domestically over a five-year period. On July 19, 2011, the EIA's acting administrator told the Senate Energy and Natural Resources Committee that the *Times* report did not contradict the agency's finding that natural gas production and consumption was on the rise. A Massachusetts Institute of Technology study group and a UBS analyst's report provide further evidence that shale gas production is trending upward and toward profitability.

Intriguingly, a column in the *New York Times* this July presented perhaps the clearest counter to the controversial articles. As the *Times* columnist noted after talking with Urbina, the articles failed to clarify that they addressed only the profitability of "independent" shale gas companies, not the "majors" or the natural gas industry as a whole. The documents forming the basis of the story were up to four years old, and the two people who sent them, though quoted as somewhat neutral sources, are vocal skeptics of the shale gas industry. Urbina's editors immediately issued a fiery response to the column, confirming that even between journalists, there is no consensus view.

As Richard Epstein noted just before this latest shale-centric controversy, new technology such as shale extraction should be welcomed for its potential to lower energy prices. Epstein wrote that other technologies involve environmental and economic risk as well, and the costs of competing innovations such as wind and solar are distorted by government subsidies. Cautious optimism about the safety and economy of shale gas development, Epstein opined, should trump both exuberance and anger.

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