Will the BP Disaster Affect Natural Gas and Electricity Markets?

Jonathan A. Lesser

Unless you have been living in a cave for the last few months, you are well aware of the continuing nightmare created by oil gushing into the Gulf of Mexico as a result of the wrecked Deepwater Horizon drilling platform. Although not the largest oil spill ever—the 1979 blowout of the *Ixtoc 1* exploratory well in the Gulf of Mexico holds that dubious record—the BP spill may eventually surpass *Ixtoc 1* if the relief wells currently being drilled do not seal the leaking well.[1]

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The most immediate environmental effects have been on wildlife and fisheries, as well as tourism in the Gulf states. Secretary of the Interior Ken Salazar imposed a six-month moratorium on new deepwater drilling that was overturned by a judge in late June. And, not surprisingly, there have been protests calling for a ban on all offshore drilling, as well as calls for increased reliance on renewable energy to "cure" the U.S. "addiction" to oil. President Obama has also used the disaster to lobby for his cap-and-trade proposal, several versions of which continue to languish in Congress. Although one can debate the reasonableness of these "green" efforts, a more immediate concern is how this environmental mess will affect the natural gas industry and, because of the increased reliance on natural gas as a feedstock for electric generation, electricity markets.

The natural gas industry already faces increased scrutiny, ironically as estimated reserves of natural gas have increased substantially. Shale gas drilling, in particular, is confronted by new regulations that could, if overdone, choke off supplies from this emerging resource.[2] But another major source of natural gas is offshore wells in the Gulf of Mexico. Thus, if drilling bans are enforced or regulations governing drilling are stiffened in a draconian manner, supplies from the Gulf Coast will likely decrease far more quickly than they already have.[3]

Of course, natural gas produced from the Gulf now accounts for just over 10 percent of total U.S. dry gas production. Thus, even if Gulf Coast production halted, overall production levels would not be drastically affected. However, stories about the adverse impacts of natural gas drilling are receiving greater prominence in conjunction with the BP spill. For example, a June 13, 2010, report from ABC News discusses methane contamination in water supplies (including showing an individual lighting the water coming out of his faucet) and polluted ponds left over from drilling activities.[4]

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Shale gas, which offers the prospect of far greater domestic supplies, is receiving especially close scrutiny.[5] In New York, for example, a bill before the state senate seeks to ban all shale gas drilling until the U.S. EPA completes yet another study on the safety of hydraulic fracturing.[6]

CONSEQUENCES BEYOND DRILLING

If politicians and environmental regulators overreact to the BP spill, as they are wont to do, there may be long-term natural gas supply implications and unintended consequences. First, as domestic supplies shrink and prices increase, imports of liquefied natural gas (LNG) become more cost-effective. However, environmentalists oppose LNG terminals because of the perceived risk of explosions. Thus, although deliveries of LNG may increase at existing terminals, prospects for building new terminals are unlikely to improve.

Second, if natural gas exploration and production is reduced, prices will increase and this will affect electricity markets nationwide. Because natural gas–fired generation is the most common type of generation "on the margin," it frequently sets the market price for electricity. As those prices increase, businesses, industry, and residential consumers will all suffer, as will the economy as a whole, just as it is slowly emerging from the severe recession.

REGULATION MUST NOT RUN AMOK

Thus, what is an appropriate regulatory response to the BP spill? Regulators must understand that nothing is "absolutely safe." There are environmental risks with any and all forms of energy resource development, even renewables. Calls to apply a "precautionary principle" approach to deepwater drilling (i.e., disallow it if there is any level of catastrophic risk) are economically irrational. Increased levels of deepwater drilling have not only been the result of technological advances that have allowed companies to exploit more far-flung reserves, but also, sadly, increased restrictions on shallow water and on-land drilling. Reducing those restrictions, coupled with sensible regulation to reduce the likelihood of surface-water contamination, would allow more exploration and development where spills can be managed far more easily and quickly.[7] A side benefit of doing so would be to increase available supplies and reduce the need for deepwater drilling.

Perhaps more important than identifying how regulators and politicians can best respond is to focus on how not to. Imposing a carbon cap-and-trade program is not going to miraculously end the need for fossil fuels. Nor will crash programs to build renewable energy generation. Nor will placing moratoriums on shale gas drilling.

Ultimately, the answer to the question posed by the title of this column is "yes, natural gas and electricity markets will be affected." But it is up to regulators and politicians to decide whether these effects will be good or bad.

NOTES

1. In the first Gulf War, Saddam Hussein deliberately dumped crude oil into the Persian Gulf. The total amount is estimated to have been 240–460 million gallons.
2. See my previous column, (2010, April). Will shale gas be damaged by too many fraccing complaints? *Natural Gas & Electricity*, pp. 31–32.
3. According to the U.S. Energy Information Administration, marketed production from U.S. wells in the Gulf of Mexico was about 2.4 TCF in 2009. Production has steadily declined from peak production levels of over 5 TCF in the late 1990s.
4. ABC News. (2010, June 13). Natural gas drilling may not be healthy. http://abcnews.go.com/WNT/video/natural-gas-drilling-healthy-10905550. For a bizarre story, see Lustgarten, A. (2009, May 4). Natural gas drilling rig kills cattle. *Mother Jones*, http://motherjones.com/environment/2009/05/natural-gas-drilling-rig-kills-cattle. Although the headline implies that the rig itself went on a murderous rampage, the cattle were apparently killed because of ingesting drilling fluids.
5. See, e.g., Moule, J. (2010, June 9). Environment: After BP, a closer eye on shale drilling. *City Newspaper*, http://www.rochestercitynewspaper.com/news/articles/2010/06/ENVIRONMENT-After-BP-a-closer-eye-on-shale-drilling/.
6. The EPA released a study of contamination caused by hydraulic fracturing in coal-bed methane drilling and found no evidence of it. See Evaluation of Impacts to Underground Sources of Drinking Water by Hydraulic Fracturing of Coalbed Methane Reservoirs, Report No. EPA 816-R-04-003, June 2004. The complete study can be downloaded from http://www.epa.gov/ogwdw000/uic/wells_coalbedmethanestudy.html.
7. See, e.g., Anderson, T. (2010, June 5). Why it's safer to drill in the "backyard." *Wall Street Journal,* http://online.wsj.com/article/SB10001424052748704050804575318591702015252.html. Anderson states that "[b]ecause most private lands have been explored, public lands offer the most potential for oil and gas development. However, the NIMBY principle has significantly restricted development on those lands. According to 2008 Energy Department figures, nearly 80 percent of potentially oil-rich offshore lands are off limits to oil and gas development, and 60 percent of onshore lands are."

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