



From Maya van Rossum's, the Delaware Riverkeeper's, Blog found at www.delawarerivervoices.blogspot.com

Natural Gas Drilling = A Future of Dependence

Contrary to the folk tales the gas companies spin, shale gas development is not about energy independence, increased jobs, or protection from climate change – shale gas development is about profits for the gas companies regardless of the harms or costs to the United States of America and us, as citizens. It is important not to be fooled by the rhetoric of the gas drilling industry.

Currently there are at least 15 applications for liquefied-natural-gas (LNG) *export* facilities in the U.S. pending before the federal government.¹ These applications, along with already approved exports, would have the capacity to move over 40 percent of the U.S. annual production of natural gas to foreign countries.² The gas companies want the exports overseas because they can sell the gas for more than 4 times the price as they can capture here in the U.S.³ and at present there is a glut of gas in this country and so unless the industry sells it overseas they won't get their immediate cash sale reward.

Expert reports and data demonstrate that while LNG exports generate generous profits for the gas drillers and export companies, all other sectors of our country's economy are in decline. In other words, LNG exports only benefit the gas industry.

Similarly, LNG exports, while creating some jobs in the gas industry, many temporary, creates a net job loss effect for the country. In fact, LNG exports could result in the net loss of as many as 270,000 jobs per year in our country.⁴

¹ See [North American LNG Import/Export Facilities](http://ferc.gov/industries/gas/indus-act/lng/LNG-proposed-potential.pdf), Office of Energy Projects.
<http://ferc.gov/industries/gas/indus-act/lng/LNG-proposed-potential.pdf>

² See [North American LNG Import/Export Facilities](http://ferc.gov/industries/gas/indus-act/lng/LNG-proposed-potential.pdf), Office of Energy Projects.
<http://ferc.gov/industries/gas/indus-act/lng/LNG-proposed-potential.pdf> & [Natural Gas Consumption by End Use](http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm), Independent Statistics and Analysis, U.S. Energy Information Administration, http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm

³ Natural Gas Overview: World LNG Prices, <http://www.ferc.gov/market-oversight/mkt-gas/overview/ngas-ovr-lng-wld-pr-est.pdf>

⁴ [Will LNG Exports Benefit the United States Economy](#), Synapse Energy Economics Inc, January 23, 2013

The Environmental Cost

It is almost daily that new research emerges showing the harms of shale gas for our communities, our country and our earth. Among the most recent scientific findings is that as much as 9% of the methane⁵ -- one of the most potent greenhouse gases known to man -- produced while drilling for gas is lost to the atmosphere. That 9% coupled with all the methane emitted during the transport of gas through pipelines, storage and use of the gas means that shale gas is a more potent contributor to climate change than any other fossil fuel – 21 to 33 times more potent than carbon dioxide if you look over a 100 year period; if you look over the next 20 years when it is the most crucial that we reduce damaging emissions it is over 105 times more potent.⁶



The unparalleled level of harm to drinking water, air quality, food supplies, and people's health that result from ongoing and increasing levels of drilling and fracking for shale gas bring high price tags for the United States economy and taxpayers. Not only do our communities lose out on life's basic needs – air, water, food and health – but we as taxpayers have to pay the upfront and long-term financial burden of these harms, including the necessary clean up and health care costs.



The deforestation, land compaction, wetlands destruction, and increased earthquake potential inflicted by shale gas development means increased flooding and flood ravaged homes and communities; it means increased erosion of public and private lands; it means the fear and harm of an earthquake where it happens; it means lost fishing, hunting, boating, birding and all the jobs they generate. And of course someone has to pay for all this harm – that someone is you and me in the form of emergency services, taxes, hazard mitigation, and more national debt.

Transforming our country into one dependent on shale gas instead of oil and coal brings with it a hefty price tag – by some estimates it will cost as much as \$700 billion.⁷ Recent estimates from the United States Geological Survey of the volume of undiscovered Marcellus Shale gas that may be recoverable is an

⁵ Methane Leaks Erode Green Credentials of Natural Gas, Nature International Weekly Journal of Science, Jan. 2, 2013. See also R. Howarth, D Shindell, R. Santoro, A. Ingraffea, N. Phillips, A Townsend-Small, Methane Emissions from Natural Gas Systems, Background Paper Prepared for the National Climate Assessment, Reference number 2011-0003, Feb. 25, 2012.

⁶ R. Howarth, D Shindell, R. Santoro, A. Ingraffea, N. Phillips, A Townsend-Small, Methane Emissions from Natural Gas Systems, Background Paper Prepared for the National Climate Assessment, Reference number 2011-0003, Feb. 25, 2012; R.W. Howarth, R. Santoro, A. Ingraffea, Methane and the greenhouse-gas footprint of natural gas from shale formations, Climatic Change, June 2011, Volume 106, Issue 4, pp 679-690.

⁷ The Facts on Natural Gas, An Energy Policy Based on Natural Gas Would Leave Us Running on Empty, Water Defense, <http://waterdefense.org/content/facts-natural-gas>

average 84 trillion cubic feet.⁸ At the current U.S. consumption rate of 24 trillion cubic feet per year⁹, chasing after this gas, and incurring all of the harm shale drilling and fracking brings, will only give an additional 3 ½ years of supply. Other estimates that include gas which is proved, probable and recoverable calculate all U.S. natural gas as supporting only 11 to 21 years of energy at this consumption rate.¹⁰ The timeline for infrastructure replacement gets further shortened as LNG exports increase. Isn't it just smarter to pay this bill once? And put in place the infrastructure needed for sustainable energy sources like solar, wind, geothermal and so on?

Investing in the transformation of our national energy focus to one that is based on drilled and fracked shale gas also means that we are not investing in sustainable energy technology. And so while the world will be wisely racing ahead of the United States in developing the technology and manufacturing facilities necessary to create and supply this permanent energy source, the U.S. will be falling miserably behind. And in just a few short decades, when the shale gas is gone, we will find ourselves more dependent than ever on foreign sources of energy – this time the technology needed for a sustainable energy supply.

The gas drilling industry is not interested in energy independence, addressing climate change, growing jobs or improving our economy; the gas drilling industry, including the pipeline and export companies, are interested in growing their own profits. We must not be fooled by the rhetoric or well paid advertisements – when we rely on the facts, science and reality it is clear, there is no place for LNG exports or the shale gas development it supports. Sustainable energy and increased efficiency must not be just our future, but our present as well.

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⁸ U.S. Geological Survey, [USGS Releases New Assessment of Gas Resources in the Marcellus Shale, Appalachian Basin](#), Press Release dated 8/23/2011.

⁹ [Natural Gas Consumption by End Use](#), Independent Statistics and Analysis, U.S. Energy Information Administration, http://www.eia.gov/dnav/ng/ng_cons_sum_dcu_nus_a.htm

¹⁰ “What the Frack? Is there really 100 years’ worth of natural gas beneath the United States?” by Chris Nelder. Dec 29, 2011. See also “Top Three Reasons Cheap Natural Gas Won’t Kill Renewable Energy”, By Stephen Lacey, Feb 21, 2012.