

July 18, 2011

Technically Uneconomic: Natural Gas Edition

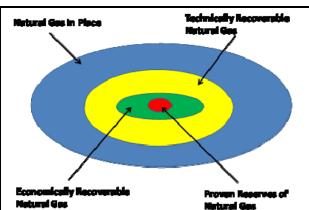
For years natural gas lobbyists have complained about the high costs of renewable energy. They hypocritically cite a 100-year supply estimate of technically recoverable natural gas in their arguments that completely ignores the costs of actually extracting the natural gas. Natural gas lobbyists and their congressional allies have also consistently cited estimates of technically_recoverable resources when complaining about the <u>amount of natural gas located in wilderness study areas or in critical wildlife habitat</u>. Unfortunately, Congress and the general public remain unaware of the True Grit, and the difference between natural gas that is technically recoverable and that which is economically recoverable.

"Technically" recoverable estimates of natural gas are much larger than "economically" recoverable estimates because they ignore the economic and environmental costs from producing commercial quantities of natural gas (see Figure 1).

Economists may not agree on much but they do agree that you have to do the math and use factual numbers. What does the U.S. natural gas supply curve look like? In other words how high do prices have to increase to recover 25%, 50%, 75%, 90%, and 100% of our nation's undiscovered, technically recoverable natural gas resource?

Two <u>recent</u> articles in the NY Times provide support for what <u>Wilderness Society economists have been saying for a decade</u> there is a big difference between natural gas that is technically recoverable and natural gas that is economically feasible to extract. For example, at today's natural gas wellhead price of around \$4 per million Btus (MMBtu) less than half of our domestic technically recoverable natural gas is economically recoverable.

In fact, a close reading of a recent <u>natural gas report from MIT</u> indicates that in order for all of our domestic natural gas to be economically recoverable, natural gas prices would have to increase dramatically – up past the prices seen during recent price



Estimates of undiscovered natural gas "in place" are always greater than the amount of undiscovered natural gas estimated to be technically recoverable, which in turn are always greater the economically recoverable estimates. Proven reserves are discovered natural gas that is economically viable and ready for production at current prices.

spikes. If the only way to economically extract two-thirds of our technically recoverable natural gas requires <u>current</u> <u>prices to more than triple</u>, won't investments in energy efficiency and renewable energy be cheaper and cleaner in the long run? If current prices have to increase 8 to 10 fold in order to economically extract all of our nation's technically recoverable natural gas --shouldn't that fact have been revealed during Congressional debate on our nation's energy policies?

If we just want to focus on what is technically recoverable, we should be getting all of our energy from renewable energy sources like solar and wind – because technically that's possible to do right now. Continuing to rely on estimates of technically recoverable energy resources distorts the policy debate about supply because the economic costs of bringing the energy to market are not being considered. Relying on technically recoverable estimates also exaggerates the jobs estimated for natural gas drilling proposals.

Questions to Ponder:

- 1. Isn't it misleading for the natural gas industry to claim "abundant" supply based on estimates that do not consider the economic and environmental costs – including air and water pollution from extracting the natural gas and getting it to market?
- 2. If current price has to increase 8 to 10 fold in order to economically extract all of our nation's technically recoverable natural gas -- won't investments in energy efficiency and renewable energy be relatively cheaper and cleaner?
- 3. If the cost of our domestic non-renewable natural gas is expected to increase while the long term costs of solar and wind energy are expected to decrease, doesn't it make economic sense to shift our supply toward renewable energy?
- 4. If relying on domestic natural gas requires prices to increase dramatically, does it make economic sense to continue to build natural gas-fired power plants and lock consumers into a high cost source of electricity at the expense of investing in renewable energy?
- 5. If high oil prices are subsidizing the drilling for wet shale gas, does the economic viability of shale gas production depend on oil prices staying around \$100 a barrel? And how will the high oil prices affect the American economy and consumer?
- 6. If natural gas is so very profitable to produce as industry has claimed in response to the NY Times story, why does industry still demand tax breaks and subsidies from taxpayers?

Economists at The Wilderness Society continue to recommend that estimates of economically recoverable natural gas-- which fully account for the environmental costs (e.g. <u>air</u> and water pollution, loss of wildlife and bird habitat) from extracting and burning this fossil fuel-- be the basis of analysis and discussion of U.S. energy policy.

<u>Listen</u> to <u>Ph.D. Economist Pete Morton</u> with The Wilderness Society talk more about this issue <u>here</u>.

For More Information, Contact:

Jennifer Dickson, BLM Action Center Communications Manager, <u>Jennifer_dickson@tws.org</u>, (303) 650-5818 ext. 110 Pete Morton, Ph.D.. Director of Economics, <u>pete_morton@tws.org</u>, (303) 650-5818 ext. 105