



## Fracking: Gangplank to Climate Chaos

A *New York Times* op-ed by oil and gas engineer Anthony Ingraffea (7/28/13) powerfully disputes the claim that natural gas from fracking is a clean alternative to coal. The piece argues:

*Because of leaks of methane, gas extracted from shale deposits is not a “bridge” to a renewable energy future — **it’s a gangplank to more warming.***

*Though it doesn’t last nearly as long in the atmosphere, ...**one pound of [methane] traps as much heat as at least 72 pounds of carbon dioxide...**even after a century, it is at least 25 times as powerful as carbon dioxide.*

*Recent measurements found leakage rates of 2.3 percent to 17 percent of annual production. A 2011 study concluded that unless leaks can be kept below 2 percent, **gas lacks any climate advantage over coal.***

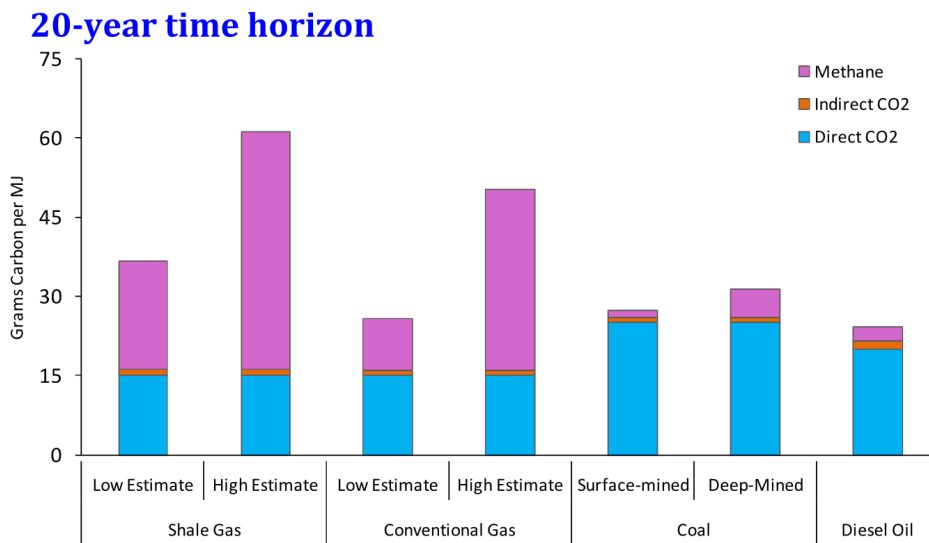
***Wells that lose their structural integrity leak methane into the atmosphere ...industry studies show that about 5 percent leak immediately** because of integrity issues, with increasing rates of leakage over time.*

*Drafts of an Energy Department study suggest that there are **huge problems finding enough water for fracturing future wells.***

*The climate advantage of natural gas over coal is unlikely to be achieved over the next three to four decades. Unfortunately, **we don’t have that long to address climate change — the next two decades are crucial.***

***We have renewable wind, water, solar and energy-efficiency technology options now. We can scale these quickly and affordably, creating economic growth, jobs and a truly clean energy future to address climate change. Political will is the missing ingredient.***

(See the full piece at [tinyurl.com/m4cmbyg](http://tinyurl.com/m4cmbyg))



*Fracking (“shale gas”) results in greater total emissions in a 20-year horizon than other dirty energy sources such as gas, coal, or oil. Source: Howarth et al. (Cornell University) “Methane and the greenhouse-gas footprint of natural gas from shale formations,” Climatic Change, 2011.*