

A pathetic bureaucratic bucket brigade is trying to be first, fast and loose with our money to douse burning banks and melt frozen credit markets. This informs solving our energy crisis to not be dependent on foreign fossil fuels or downwind of political natural gas. However, other natural gases may blaze part of our path away from courtships of unstable regimes and our lusting after precious petroleum dowries.

The natural gas industry has a strong presence in our economy. It employs hundreds of thousands and we are a world leader in exploration, transmission and associated technologies. A shift of trade winds from petroleum and towards greater utilization of natural gas, especially for electricity and transportation, might position the U.S. gas industry as a key foreign trade offering.

Four times more energy rich than oil, the entire cycle of producing, processing, transporting and using natural gas is about 90% efficient. The pipeline delivery system is underground and well protected and the drilling platforms are safe. Our deepest well provides about 1.5 percent of all of our gas supply, is a two-hour flight away from our shores and occupies a soccer field size footprint while withstanding historic hurricanes.

A twenty percent increase of natural gas to replace some coal and oil electricity generation would decrease acid rain, smog, solid waste and water pollution and offset about 2.6 million barrels a day of imported oil. Horizontal drilling, three-dimensional seismology and advances in transmission and distribution of natural gas continually increase the estimates of abundance, accessibility and affordability of domestic resources. Although this suggests stable prices in the face of increased demand, the resource is limited. "In gas we trust" must not echo through congressional halls in a political world prone to hyperbole. Although hot air in those halls is endless, the earth's methane rich air is probably not.

Natural gas extraction can yield hydrogen. Even if the CO₂ thus generated is not sequestered, hydrogen from natural gas can power vehicles that emit half the carbon dioxide of gasoline. Natural gas as vehicular fuel dramatically decreases carbon monoxide, nitrogen oxides and particulate matter as well. Owing to a limited refueling network, centralized mass transit might be the first large scale application.

Natural gas can be converted into safe and easily transportable forms. Cooling natural gas results in Liquefied Natural Gas (LNG) with a 600 hundred fold decrease in fuel volume. While costly to produce and inter-convert, those costs are falling. LNG may have a role in trade or when hurdles of long distance transmission or distribution from gas sources arise. Presently dwarfed by the international transportation in crude oil, the market for (LNG) is growing.

Natural gas can also be a renewable fuel known as biogas, also called digester gas, swamp gas, or marsh gas. Produced by the fermentation of manure, wastewater sludge, cities' solid waste or other biodegradables, it is a growing bubble in the energy ocean. It is cost efficient, requires a modest production footprint and may assist in landfill and cattle management preventing methane escape and recapturing the energy in dung.

Natural gas is not the wind sailing all to fair seas. Extraction techniques may be environmentally damaging and the disconnect between sources and high demand areas will require costly infrastructure investments impacting its economic efficiency. It is not a limitless zero emissions fuel, but it remains a key member in the symphony of sound energy reason.

In August 1977 the Energy Department was born ..." to lessen our dependence on foreign oil." Its budget is now \$25 billion and you pay over 100,000 salaries. Waiting for Congress to do something for us often results in them doing something to us, including inaction. The genius of truly American energy is that in time it can solve any crisis except crisis of the will to act.

*Dr. Kevin Ryan is a retired
Colonel, physician, musician and
author who lives in Fairfield.
Reach him at
ryan_k@comcast.net.*