

Natural Gas Naysayers Have It All Wrong

Ned Mamula & Patrick J. Michaels

January 12, 2016

In promoting his State of the Union address, which he will deliver tonight, President Obama touts his climate-change policies and the recent Paris climate summit. In reality, neither will have any detectable influence on the climate. But his Clean Power Plan, a cornerstone of our Paris "commitment," could go a long way toward derailing the remarkable U.S. Energy Renaissance.

Thanks to this revolution, powered by horizontal drilling and hydraulic fracturing, natural gas has achieved rock-star status in the U.S. energy panoply. It's abundant and clean; relative to coal, it gives twice the energy bang for the carbon dioxide buck; it's transportable and very affordable. In fact, we have the cheapest natural gas on earth. Economics and geoscience have conspired to make it a major fuel for the foreseeable future. There is so much that it will likely be replaced by some unforeseeable future technology rather than being priced out by scarcity.

Some of the economics and technology are incredible. In southwestern Pennsylvania's Marcellus Shale, it takes about two months from first breaking ground to a "pad" of twelve producing wells, with the footprint of a baseball diamond. After that two-month investment, the pad is likely to produce for 60 to 100 years. And if you don't like the price, just shut it down with a simple valve. Turning it back on is as simple as, well, turning it back on.

Estimates of total domestic supply vary because of unknown technological developments, but it's likely to be in the multiple-century range. The enormous supply will spur many new or augmented applications. Big railroads like Warren Buffet's Burlington Northern Santa Fe are equipping locomotive lashups with huge natural-gas "tenders." Big trucking companies are outfitting experimental fleets. Some day the space problem will be solved for its use in personal cars that are currently range-limited by bulky tanks.

We are probably about to become the world's biggest exporter of liquefied natural gas (LNG) — and we*could* continue to reduce the carbon dioxide emissions from electrical generation, the largest single source, because a gas-fired power plant is simpler, cheaper, and easier to operate than a coal burner.

But that part is not going to happen

A little over a year ago, the Obama administration floated its Clean Power Plan (CPP). The original version largely replaced coal with gas for electrical generation, an obvious and efficient choice if one is alarmed by carbon dioxide emissions and the earth's relatively slow rate of warming (far, far beneath the alarmist forecasts we have been reading for the last 50 years now). The June 2014 draft stated that natural gas would be the bridge fuel until renewables were viable on their own.

But during the year the CPP was in draft form, Obama gave in to the radical environmentalists. When the CPP came out in final form last June, it became clear that the switch from coal to gas was largely over. Early last year, the fraction of our power produced by gas reached 31 percent. The CPP caps it at 33 percent, basically the same figure. Instead, the Plan's massive emission reductions will largelybe accomplished with unreliable, pricey, subsidized, and heavily propagandized solar energy and windmills. Some logically think nuclear is a better idea, but it is the greens, not logic, that are being pandered to.

Did we mention that a Republican-led Congress funded all of this last December? So natural gas, the natural replacement for coal, will never be the new electrical energy supplier of choice. In the eyes of the EPA, using natural gas for electricity will delay the transition to wind and solar, a transition that will never provide 24-hour energy unless we learn how to store massive amounts of it — something that electrical engineers have been trying to do for about 150 years now.

In the final analysis, renewable-energy hawks should endorse the star status of natural gas. Wind and solar power fluctuate — the wind doesn't always blow; the sun doesn't always shine — and natural gas is far more efficient than any other fuel when it comes to filling in those gaps. In fact, it's safe to say that, despite the Obama administration's proscription against gas to replace baseload coal in the future, gas — and a lot of it — will be what will keep "renewables" palatable. And further, there's no evidence at all that solar energy and wind can come close to replacing the remaining coal, even if the government subsidizes it to the moon.

A future without more gas for electrical generation — unwisely dictated by the EPA — could be pretty dark and cold.

Ned Mamula and Patrick J. Michaels are with the Center for the Study of Science at the Cato Institute.