



Nuclear Is Not the Right Alternative Energy Source

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Luminant Energy, formerly TXU, is proposing to build two Mitsubishi nuclear power reactors at its Comanche Peak site, where two reactors are already in place.

This is part of a national wave of new commercial reactor proposals after a three-decade lapse in new orders – eight in Texas alone. Having failed miserably to deliver on the 1950s promise that nuclear electricity would be “too cheap to meter,” the industry now says it will save us from climate change. If you don’t like coal, you have to take nuclear, goes the nuclear establishment’s hopeful mantra.

That’s a false choice. Replacing coal with nuclear is risky, costly and unnecessary.

Renewable energy sources are quite sufficient to provide ample, reliable electricity. For instance, Texas has greater wind energy potential than its present electricity generation from all sources; it is greater also than the output from all U.S. nuclear power plants combined. And it has barely captured a whisper of its potential.

Wind energy is competitive with or more economical than nuclear energy – about 8 cents per kilowatt-hour in good areas. A recent independent assessment by the Keystone Center, which included industry representatives, estimated nuclear costs at 8 to 11 cents.

Intermittency is not a significant issue until very high levels of penetration. For instance, a 2006 study prepared for the Minnesota Public Utilities Commission found that an increase of just over 2 percent in operating reserves would be sufficient to underpin a 25 percent renewable energy standard supplied by wind.

Meanwhile, Solar energy is somewhat more expensive today, but costs are coming down rapidly. Last December, Nanosolar produced the first solar panels costing less than a dollar a watt at its factory in Silicon Valley.

In January, MidAmerican Energy Holdings, which is owned by Warren Buffet’s Berkshire Hathaway, dropped plans to build a nuclear power plant in Idaho, on the grounds that it could not provide reasonably priced energy to its customers.

New nuclear plants would add to the country’s problem of nuclear waste. The federal government has long been in default of its obligations to existing nuclear plant operators to take the waste away from their sites. Nuclear utilities have had to take the government to court to recover added storage expenses, which will cost the taxpayers billions or possibly even tens of billions of dollars over time.

To imagine that the federal government will take charge of waste from new plants where it does not even have contracts is wishful thinking. Much more likely, Texas will be stuck with it.

And then there is the problem of cooling water. The two proposed reactors would consume about 40



million gallons of water per day. Even assuming that the water is available, Texas is risking a less reliable power system, given that droughts are estimated to become more extreme in a warming world.

For instance, last September, a nuclear unit at Browns Ferry belonging to the Tennessee Valley Authority had to be shut down for lack of water. In contrast, solar photovoltaics and wind-generated electricity do not need water.

Luminant's two reactors are already discharging significant amounts of tritium-contaminated radioactive water into the Squaw Creek reservoir. New reactors would only add to those discharges.

Before proceeding with new reactor proposals, Luminant should at least investigate how it might reduce existing tritium discharges. Tritium is radioactive hydrogen, which displaces ordinary hydrogen in water to form tritiated water, which becomes radioactive as a result.

The notion that renewable energy cannot supply the electricity requirements of the United States has been widely put forward without careful technical evaluation.

On the contrary, it is nuclear that is the risky course. Texas can remain an energy leader in the twenty-first century – but only if it steps out ahead of the coming renewable energy revolution.