

Cox is eager for a nuclear future. Utahns should tell him why we're not, says Robert Gehrke

With safer, cleaner, cheaper alternatives, nuclear power may not make the most sense for Utah



(Francisco Kjolseth | The Salt Lake Tribune) Robert Gehrke.

In Wyoming last week, [an announcement was made](#) that could mark a resurgence in the long-stymied nuclear energy

industry.

Officials announced plans to build a new 345 megawatt nuclear power plant in the state that could, at its peak, generate enough electricity for all of the households in Wyoming with room to spare.

What makes this announcement different is the array of power players behind the project. It's a partnership between Warren Buffett-owned PacifiCorp and Bill Gates-owned Terrapower that has the backing of President Joe Biden's Energy Department and Wyoming Gov. Mark Gordon.

It also has the support of Utah Gov. Spencer Cox, who praised the project as "a huge announcement" that "will have big implications for Utah in the future."

"We look forward to similar partnerships in the years to come," the governor said.

It's not necessarily a new position. Cox's predecessor, Gov. Gary Herbert, supported nuclear energy, as did his predecessor, Gov. Jon Huntsman.

But the Wyoming announcement ups the stakes dramatically, moving it from concept to something more concrete and forcing Utahns to confront critical questions nagging nuclear power: Is it safe? Is it cost-effective? And is it right for Utah?

Safety has always been the issue dogging nuclear power. Whether it's Three Mile Island or Chernobyl or Fukushima, you surely have some nuclear disaster as a touchstone framing your perception of the energy.

The good news, according to Michael Simpson, chair of the Material Science and Engineering department at the University of Utah, is that the Sodium reactors that Terrapower hopes to build in Wyoming are generally safer than the old water-cooled reactors.

The Terrapower plant would be cooled with sodium, which transfers heat better than water, meaning it is less likely to melt down (like Chernobyl) or explode (like Fukushima).

Years ago, Simpson said, researchers at the Idaho National Laboratory did an experiment with a sodium-cooled reactor where they shut off the sodium coolant and instead of heating, the reactor slowly cooled and the reaction stopped.

Others dispute the safety claims, however. Earlier this year, the Union of Concerned Scientists [issued a report that said the sodium reactors are unproven and raise other safety issues](#) — for example, the sodium can burn if exposed to air.

"When it comes to safety and security, sodium-cooled fast reactors and molten salt-fueled reactors are significantly worse than conventional light-water reactors," said Edwin

Lyman, director of nuclear power safety for UCS.

Then there is the waste issue. The proponents of the sodium reactors contend that they would burn more of the fuel, producing less waste. Again, UCS disputes that and argues the waste that would be generated would pose nuclear proliferation and possible terrorism risks.

Then there's the economics of nuclear power.

Recently, South Carolina completely scrapped a water-cooled nuclear plant that had been in the works for years. Some [\\$9 billion was squandered](#) sparking lawsuits by investors and ratepayers demanding their money back.

Rocky Mountain Power's own figures released in 2019 [put the cost of nuclear power at \\$95 per megawatt hour, compared to around \\$25 to \\$30 per hour for solar](#). Some cost projections are lower, some are higher, but none put nuclear in the same ballpark as solar, raising the obvious concern that we'll be on the hook for the added expense one way or another — either as ratepayers or as taxpayers subsidizing the more costly power source.

There's also a larger question, according to Scott Williams, executive director of HEAL Utah, an environmental group that has opposed nuclear power: Do we need it?

Yes, there is a need to clean up our power generation to curb

climate change — the sooner the better. But Williams [points to a recent study](#) that determined the lifecycle emissions with nuclear — mining, milling, transporting and storing the fuel and building and decommissioning the plants — far exceed other alternative energy sources.

But the TerraPower reactor isn't expected to come online until 2028 and, as we saw in South Carolina, when it comes to building nuclear power plants, the projections often are unrealistically optimistic.

With battery technology improving and rooftop solar expanding and getting cheaper, there's no reason to gamble on nuclear, Williams said, other than centralized generation benefits Rocky Mountain's shareholders.

"It just doesn't make sense," he said. "If you're looking at it objectively, to say it's better to put a bunch of money into a technology that not only isn't proven, but has been proven to fail time and time again."

And we have to take into account our state's history with nuclear energy that is nothing short of radioactive itself, from the miners and uranium mill workers sickened by their exposure to radiation, to the [thousands upon thousands of Utah Downwinders](#) stricken with various cancers as a result of nuclear weapons testing in Nevada, to the decade-long battle to [beat back a nuclear waste storage facility in Utah's](#)

[desert.](#)

So do we scrap the whole nuclear idea? Not necessarily.

But if Utah wants to venture down the nuclear energy path, these questions and a host of others have to be thoroughly researched and addressed. We're not there yet and until we are, the cheerleading from the Biden administration and Gov. Cox feels premature.

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