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## Arid Utah can't afford costly, thirsty nuclear power

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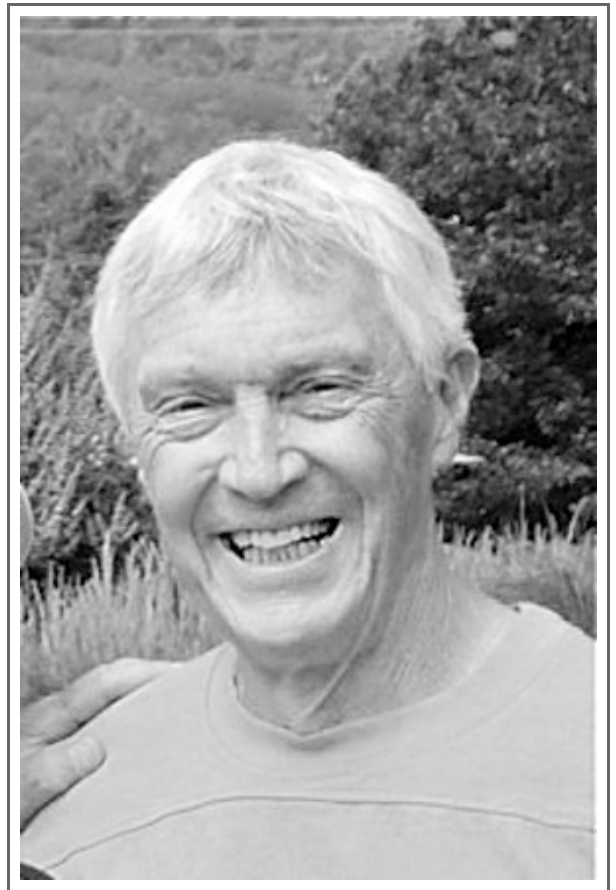
Gov. Gary Herbert has invited candid public debate about the merits of nuclear energy in Utah. It's an invitation I eagerly accept, as will many others.

To start, I encourage the governor to consider the situation now unfolding in Florida, where officials and residents are grappling with that state's nuclear power challenges.

Florida recently approved a new plant in Levy County. The builder, Progress Energy, couldn't get private financing, a common problem with nuclear plants. So, following approval, the local utility requested, and got, not just a 30 percent base-rate hike, but a new monthly "nuclear charge" for all residential and commercial customers. They became effective January 2010.

This sequence of events may well become the norm, as utilities seek to charge customers extra, not only during the construction of a nuclear plant but throughout its productive life. One Florida legislator noted that without the additional customer charges, "we would not be considering building new nuclear generation in Florida."

The Levy County experience demonstrates an ugly truth: As a market-based business, nuclear power cannot stand on its own. Because of sky-high construction costs and huge financial risks, private money won't back nuclear power. Therefore, the industry leverages its connections in state legislatures to put the burden on ratepayers and goes to Congress for multibillion-dollar, taxpayer-backed loan guarantees.



Bob Archibald served on the faculty at Ohio State for a decade then spent the rest of his career consulting with senior managers and management teams, often advising and training through periods of critical decision-making. He is retired and lives in Sandy.

One reason that private money is leery of nuclear power is the uncertainty about cost. Progress Energy, for example, first said it would finish the plant by 2018 for \$17.2 billion. That date soon slipped to 2021 and the price tag rose to \$22.5 billion. And those figures are almost certainly not final. Across the industry, nuclear completion dates and costs are moving targets.

What would be the burden on Utah ratepayers if we, too, are saddled with a project that private money is too smart to touch? Rocky Mountain Power has less than half the customer base served by Progress (780,000 vs. 1.6 million), so rate hikes here will easily dwarf Levy County's.

Economics are only part of the picture. In addition, water resources are a crucial factor. Two Westinghouse AP 1000 reactors (a typical new plant) consume nearly 20 billion gallons of water annually. That's about 54 million gallons of water a day, water that Florida can pull from the Gulf of Mexico, while Utah has only the Green River, part of the already oversubscribed and climate-threatened Colorado system.

Further, nuclear reactors must have guaranteed water. In a dry year, the proposed Green River plant — not Utah towns or farmers or businesses — would get first dibs. Think of the blow to Utah's economy when times get dry, as inevitably they once again will (consider the drought of 1999-2004).

Finally, consider the waste. Spent fuel rods must be kept in cooling tanks on site for 10 to 12 years before they can be moved. And then what? No company or government in the world has solved the problem of permanent nuclear waste storage.

Please don't think that Utah can solve the hot-waste problem, no matter how entrepreneurial our people and companies. To date no one has. So it's easy to say "if we generate it we keep it," but it's a problem Utah can't afford.

Let's by all means discuss the feasibility of nuclear power in Utah. While we're doing it, however, let's also remember that with every passing day, alternative energy sources become more and more attractive. They are clean and generate no long-term waste. These alternatives use Utah's most abundant "natural" resources: the endless energy of sun and wind.

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