The pendulum swings two ways....

When "pro-nukers" change their mind

The media and faux environmentalists have devoted a good deal of ink to stories of alleged "environmentalists" re-thinking their positions on nuclear power and becoming pro nuclear. That's fine; if you can't change your mind, can you prove that you still have one? But, virtually no stories have appeared about the numerous professionals and policy makers who at one time were pro-nuclear, or who worked in the nuclear industry, and have either been critical of the safety and economics of nuclear, or have changed their mind to **be against nuclear power**. Here are some notable examples:

Peter Bradford: former member, Nuclear Regulatory Commission (NRC); former public utilities commission chair, states of New York and Maine; while not pro- or anti-, he is, "opposed to unsafe facilities, to uneconomic facilities, to wastes that couldn't be disposed of, to biased regulatory agencies and to technologies that couldn't be adequately safeguarded against proliferation;" commenting on how nuclear power cannot have a positive effect in abating climate disruption:

"Climate change, so urgent and so seemingly intractable, has become the last refuge of nuclear charlatans throughout the Western world. From well-meaning ideologues and editorial writers claiming that the unknowable is theirs to state with certainty, to paid advocates more skilled in pleasing and persuading government officials than furthering consumer and environmental well-being, prophetic arguments have swollen from a stream to a river and now merge with the Seine in Paris, threatening to submerge the world under a layer of nonsense rising as inexorably as the seas themselves." -- Bulletin of the Atomic Scientists, 17 December 2015.

"Those who assert that the problem of climate change is so urgent that —we have to do everything (or, another popular substitute for serious thought, —seek silver birdshot, not silver bullets) overlook the fact that **we can never afford to do everything.** The urgency of world hunger doesn't compel us to fight it with caviar, no matter how nourishing fish eggs might be. Spending large sums on elegant solutions (especially those with side effects, like nuclear power) that provide little relief will diminish what we can spend on more promising approaches." -- "Honey, I Shrunk the Nuclear Renaissance." ElectricPolicy.com. 2010.

Gregory Jaczko: former Chair of the U.S. Nuclear Regulatory Commission (NRC):

Former Nuclear Regulatory Commission (NRC) Chairman Gregory Jaczko says that *the current fleet of operating plants in the US should be phased out because regulators can't guarantee against an accident causing widespread land contamination...* Jaczko is not alone among former NRC commissioners and officials critical of the agency [NRC], which appears out of step not only with other countries' regulators but with the recommendations of a post-Fukushima task force of the American Society of Mechanical Engineers (ASME).

"The next accident is going to be something that no one predicted. At a certain point you have to review the fundamental problem," Jaczko told NIW in an interview this past week. "That evaluation tells you you can't rule out a severe accident." That should mean being able to rule out the possibility of radioactive contamination beyond the plant, and under the current regulatory structure that's not possible, he argued. "It's mind boggling that people would say that's OK, and it's not OK." -- "Nuclear Safety: Jaczko Calls for Phaseout in US, Says Plants Aren't Safe," Stephanie Cooke, Nuclear Intelligence Weekly, Mar. 29, 2013

Jim Rogers: 7-year former Chair of Duke Energy, 2nd largest nuclear utility in the U.S.:

[Rogers]"... lays out a vision that **eschews the traditional approach** to spreading electricity **of constructing large coal, gas and nuclear power plants**, and promotes instead a reliance on local production, small-scale connections and alternative forms of energy, such as solar panels, whose costs are coming down.

"We can't bring electricity to the rural areas of the world using an old-fashioned industrial grid based on building more coal plants and running copper lines from timber pole to timber pole...The environment and financial impediments make that impossible. Instead, we'll do it with modern technology: solar and other clean energy sources, new kinds of batteries, LED lights, efficient cook stoves and TVs, and plenty of innovations that now are surfacing.

"It's very clear to me that the system of electric power we have in North America and Europe, which is now being instituted in much of China and India and elsewhere, *is not sustainable for the future of the planet*. So we're going to have to figure out something else, and soon."

-- "Ex-Duke CEO: Here's how to power the world," Bill Loveless, for USA TODAY7:32 a.m. EDT August 23, 2015

Alison Macfarlane, former Chair of the U.S. NRC, professor at George Washington University; not anti-, but...:

"Nuclear cannot provide a short-term solution to climate change because it takes so long to bring new plants online" – "It's the first new U.S. nuclear reactor in decades. And climate change has made that a very big deal," Washington Post, 6/17/16.

Arnie Gundersen: nuclear engineer, director of Fairewinds Energy Education; former licensed reactor operator and nuclear industry senior vice president.:

""We all know that the wind doesn't blow consistently and the sun doesn't shine every day," he said, "but the nuclear industry would have you believe that humankind is smart enough to develop techniques to store nuclear waste for a quarter of a million years, but at the same time human kind is so dumb we can't figure out a way to store solar electricity overnight. To me that doesn't make sense." – "Did Tesla Just Kill Nuclear Power?", Forbes Magazine, May 1, 2015.

Wendell J. Kelley: former Chairman and President of Illinois Power Company:

DECATUR—Illinois Power Co., which has been waiting for nearly a decade to fire up its first nuclear generating plant [Clinton-1], wouldn't undertake a nuclear program if it could start over....If I knew (10 years ago, in 1972) what I know today, we wouldn't have started a nuclear plant. And if I had to make the decision today (1982), Clinton II (a second nuclear plant that was never started) would be over." -- Crain's Chicago Business, April 19, 1982.

The American Public: "For the first time since Gallup first asked the question in 1994, *a majority of Americans say they oppose nuclear energy.* The 54% opposing it is up significantly from 43% a year ago, while the 44% who favor using nuclear energy is down from 51%." – results of Gallup Poll, March 18, 2016.

And, while not pro-nuclear per se, **Joe Romm** has an MIT doctorate in physics, and is far better credentialed and more experienced in policy and governmental affairs than Michael Shellenberger or Dr. James Hansen:

"Climatologist James Hansen argued last month [Dec. 2015], "Nuclear power paves the only viable path forward on climate change." *He is wrong....* Those interested in what new nuclear power can and cannot plausibly contribute to stopping global warming should start with the most objective, independent, and comprehensive analysis done in recent years — the 2015 "Technology Roadmap" from the IEA and NEA. Those agencies' bottom is line is that, if the industry gets its act together — a big IF, given recent history — new nuclear power can play an important <u>but limited</u> role.... <u>if</u> it can solve its cost and logistics problems...."

"Hansen et al also continue the myth that somehow nuclear power is being held back by environmental opposition, rather than its own marketplace failures...."

"Nuclear power remains a highly subsidized energy source that benefits from a myriad of favorable policies in this country, including taxpayer-backed disaster insurance and loan guarantees."

"Indeed if we actually moved into the realm of sober realism, it becomes clear that new nuclear power is most likely to be a bit player.... the IEA and many others have concluded that **new renewable energy will play a far bigger role in the transition.**" -- Excerpts from: "Why James Hansen Is Wrong About Nuclear Power," Jan. 7, 2016

Joe Romm: "Joseph (Joe) Romm is a writer who has published eight books and was named by Time as "the Web's most influential climate-change blogger." Romm is a senior fellow at the Center for American Progress, where he founded the blog Climate Progress, and chief science adviser to the 2014 Emmy-winning documentary television series on global warming Years of Living Dangerously. He was acting assistant secretary for energy efficiency and renewable energy in the Clinton administration, overseeing \$1 billion in low-carbon technology development and deployment, and worked at the Energy Department for five years. He worked as special assistant for international security at the Rockefeller Foundation, and as a researcher at the Rocky Mountain Institute, after earning a doctorate in physics from MIT..."

-- Abstract -Bulletin of the Atomic Scientists Nov. 2015

Dr. Mark Cooper: energy economist, Vermont Law School; PhD, Yale University; former Yale & Fulbright Fellow:

"The Economic Scene column "Liberal Bias, Too, May Thwart Progress on Climate Change" (NYT, April 20, 2-16), chastised liberals for their opposition to nuclear power, which it characterized as "the only technology with an established record of generating electricity at scale with emitting virtually no greenhouse gasses." That statement is false.... Even more important, for a solution to climate change is the fact that new nuclear reactors cost three times as much as renewables and demand management, take five to ten times as long to deploy, impose massive non-carbon pollution problems, and consume huge quantities of water, in addition to raising serious safety concerns. A decarbonization strategy reliant on nuclear power will costly, slow, dirty and risky.... Opposition to nuclear power is NOT "anti science," it's economic reality. Nuclear can't compete in the market." – letter to the NY Times, 4/20/16.

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