In the 1960s, when legendary environmentalist David Brower expressed his opposition to nuclear power, he exposed a rift among his Sierra Club colleagues, many of whom saw “too cheap to meter” nuclear power as the solution to air pollution problems. Brower and others focused on the danger of nuclear accidents, security issues, and the difficulty of securing high-level radioactive waste for long-term storage. The surge in nuclear power development in the 60s and 70s died under its own weight in the 1980s. Plants took too long to build and cost far too much when compared to other options. A catastrophic accident at Chernobyl and a near-miss at Three Mile Island seemed to seal the deal.

Through the next two decades, most environmentalists followed Brower’s lead. Of late, however, the old environmental rift has resurfaced. Many now feel that nuclear power’s potential to provide that old familiar base load electricity supply without much in terms of greenhouse gas emissions makes the downsides of the nuclear option look tolerable. Congress has continuously supported nuclear power, and provided strong incentives in the Energy Policy Act of 2005 to support next-generation nuclear technology.

One has to wonder, however, whether the new openness to nuclear reflects, more than anything else, the passage of time since we last tried to build these things. Enter the New York Times and its article, yesterday, about a flagship new project in Finland that has begun to falter. James Kanter reports that “after four years of construction and thousands of defects and deficiencies, the reactor’s 3 billion euro price tag, about $4.2 billion, has climbed at least 50 percent. And while the reactor was originally meant to be completed this summer, Areva, the French company building it, and the utility that ordered it, are no longer willing to make certain predictions on when it will go online.”

While the American strategy has been to standardize new plant design down to “the carpeting and wallpaper,” in order to control costs, Kanter states that “early experience suggests these new reactors will be no easier or cheaper to build than the ones of a generation ago…” He goes on to quote Paul L. Joskow, a professor of economics at the Massachusetts Institute of Technology, a co-author of an influential report on the future of nuclear power in 2003: “A number of U.S. companies have looked with trepidation on the situation in Finland and at the magnitude of the investment there,” Joskow said “The rollout of new nuclear reactors will be a good deal slower than a lot of people were assuming.”

Assume, for a moment, that our greenhouse gas reductions compel serious

consideration of nuclear power as an option going forward. It has been suggested, and the New York Times repeats the assertion, that in order to make a serious dent in carbon emissions, the world would have to bring on line an additional 13 nuclear plants per year between now and 2030. From a practical standpoint, this is unlikely. The permitting process in the U.S., although streamlined through recent legislation, is too sluggish. The engineering problems are too challenging. The materials availability is questionable. But most significantly, the needed capital commitment is enormous, and risky. We have only one long-term chance to make necessary cuts in carbon emissions related to power production. Does it makes sense to put so much of our nest egg in one basket?

No matter what the nuclear future looks like, the need to aggressively pursue renewable energy options is undiminished. Compared to the nuclear option, wind is cheaper, faster to build, and (because it is geographically dispersed) more secure. Many of the same things can be said about most solar energy technologies. It is the intermittent nature of most renewable energy machines that makes it harder to ignore nuclear power. Perhaps we should be seeking better ways to store intermittent wind and solar, rather than focusing on ways to store nuclear waste.