

## Nuclear power offers U.S. safe energy alternative

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For decades, energy policy and usage has been a major topic for discussion. Ever since the Arab oil embargo of 1973 during the Nixon administration, politicians and people have debated how to wean ourselves from foreign oil, how to use less energy, how to make our machines more energy-efficient.

This periodic exercise in futility continues to this day. And we continue to import a tremendous fraction of our oil from countries that are not really our friends, countries that in the bat of an eye can decide to turn off the spigots, to raise prices or to apply political pressure to our government. Why do we tolerate this? Especially since we have it in our power to create power domestically.

Wind and ocean power generation are technologies that are well known. Of course, nuclear power — the safest form of large-scale power generation — has been shunned in this country for almost three decades. Really, is nuclear power the safest? Yes! Have a look at [www.nucleartourist.com](http://www.nucleartourist.com) for information on the approximately 440 nuclear power plants operating worldwide.

Today, nuclear energy supplies 16 percent of the world's electricity, avoiding the emission of about 2.5 billion tons of carbon dioxide every year that would otherwise be generated by fossil-fuel solutions, such as supercritical pulverized coal. Seventy-five percent of France's power is so derived. The U.S. share is about 20 percent. Why not more? Nuclear power is safer and cleaner than the other types of power plants in use in the United States. They are safe, and the radioactive fuel can be safely stored. In a time of so-called global warming and major atmospheric pollution, elected officials as well as the environmental movement needs to look again at nuclear power as a savior.

The disaster of Chernobyl in 1986 haunts all of us, but this Soviet (Ukraine) reactor was poorly maintained, and numerous safety protocols were ignored. The accident at Three Mile Island in 1979 was caused by a combination of personnel error, design deficiencies, and component failures, and is detailed in the Nuclear Regulatory Commission Web site. A study of the events around this partial core meltdown resulted in an overhauling of rules surrounding the safety of nuclear reactors.

We know how to build safe reactors. Westinghouse and GE build and maintain plants worldwide. Given the health issues surrounding the use of fossil-fuel power plants, not to mention the political risks of foreign oil, it is incumbent upon our leaders to revisit our nuclear power options and to begin a process of educating the public about the realities of

nuclear power. Given that it can take 10 years to go from the decision to build a plant to the time it is generating power, it seems we should get started today. And in fact, we appear to be waking up to this form of power.

Some two dozen power plants are scheduled to be built or refurbished during the next five years in Canada, China, several European Union countries, India, Iran, Pakistan, Russia, and South Africa. In the United States and the United Kingdom, governmental preparations are under way that may lead to 15 new reactor orders by 2007.

Most of the new reactor designs are third-generation pressurized-water reactors, although companies in China, France, and South Africa are looking to build a fourth-generation design called a gas-pebble-bed reactor. The new reactors are supposed to be inexpensive to build, more powerful, and safer; and they can be operated for up to 60 years, according to nuclear-power trade groups.

On Dec. 30, 2005, for the first time in years, the Nuclear Regulatory Commission certified the design of a new reactor — the 1,000-megawatt Westinghouse advanced passive reactor. Six U.S. power-plant operators are preparing combined construction and operating license requests to the NRC that could restart construction in the next five years. This is all very hopeful.

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