Generating Electricity with Nuclear Power Can Help Address and Mitigate Global Warming

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By Dr. Patrick Moore
Greenspirit Strategies

HAVING SPENT MY PROFESSIONAL LIFE AS AN environmentalist, I am keenly aware of the potential threat to our planet posed by global warming. As a scientist, I have come to view nuclear energy as essential to meeting that threat.

Frankly, that was not always the case. When I helped found Greenpeace in the early 1970s, my views pretty much mirrored those of my environmental compatriots. For me, the phrase "nuclear power" was synonymous with nuclear weapons, a runaway arms race and a date with Armageddon. It was that conviction that inspired the first Greenpeace voyage to the rocky coast of Alaska's Aleutian Islands to protest hydrogen bomb tests.

But after 35 years, my views have changed. And while the notion of a pro-nuclear, environmentalist might strike some as a contradiction in terms, it shouldn't. Increasingly, independent environmentalists have come to the conclusion that nuclear power's electricity, produced with virtually zero greenhouse emissions, is critical if we are to overcome the challenge of global warming.

In my travels, the question most often put directly to me is: What made you change your mind?

The answer, in a word, is science. It was my training and background as a scientist that eventually enabled me to cut through the fear-based, anti-nuclear dogma favored by some environmentalists and to base my conclusions on facts alone.

Here are just a few of the important facts that must be considered, especially by New Jersey residents:

Fact #1—In the United States, nuclear power plants now supply 20 percent of the total electricity used. Here in New Jersey, nearly 52 percent of the state's electric demand is met by nuclear power that is not only highly reliable but is among the lowest costing energy available in the region.

Fact #2—A major new study, conducted for the Nuclear Energy Institute by Polestar Applied Technology, Inc., warns that without nuclear energy, Governor Corzine's laudable goal of achieving a 10 percent reduction in CO_2 emissions by 2015 cannot be met. The same holds true, the report said, for the Regional Greenhouse Gas Initiative (RGGI) goals, the benchmarks set by the Northeastern states to reduce emissions from the generation of electricity.

Fact #3—Given the time it takes to site and build a new nuclear facility, it is imperative that the operating licenses of the existing plants—like Oyster Creek— be extended and the units kept on line.

Fact #4—When asked to analyze the impact of retiring Oyster Creek, the Bates-White consulting firm said the economic consequences would be substantial, including a $200 million jump in electric costs. But, so too, would the environmental impact.

Replacing Oyster Creek's emission-free power with electricity from coal-fired plants, would result in increased CO_2 emissions equivalent to adding nearly one million cars to New Jersey roads, or about half a million if the replacement power were to come from natural gas units.

Electricity from wind, biomass, hydro and other renewable sources must be developed. Increased conservation is also critically important. But none of it, even when combined, comes close to meeting our present-day demand. And that demand will climb by at least 40 percent by 2030, according to the Department of Energy.

The signs that nuclear power is undergoing a resurgence are everywhere. In Texas, NRG Energy has applied for permission to build the first new U.S. reactor in 29 years, a request that was followed within days by an application from the Tennessee Valley Authority seeking permission to build its own new nuclear plant. Most industry analysts predict that many more such applications are on the way.

This growing acceptance of nuclear power as a valuable energy asset has clearly reached the public. In fact, a recent poll, conducted for the New Jersey Affordable, Clean Reliable Energy Coalition, shows a 2 to 1 margin of support for nuclear power by registered New Jersey voters.

I believe we should reduce our fossil fuel consumption in the face of impending climate challenge. But we should not succumb to simplistic, knee-jerk reactions or confuse fear mongering with scientific fact. Nuclear power is among the most highly regulated technologies in use today. Clearly, it has shown itself to be safe and efficient. ■

Dr. Patrick Moore, co-founder and former leader of Greenpeace, is chairman and chief scientist of Greenspirit Strategies in Vancouver, British Columbia, and is co-chair of an industry-funded initiative, the Clean and Safe Energy Coalition, which supports increased use of nuclear energy.