

Nuclear energy: Does it make sense for the environment?

After decades of wariness, interest in nuclear power is picking up. Do the benefits outweigh the risks?

YES

Nuclear power is the largest source of emission-free energy generation in the U.S. One of every five American homes and businesses gets its electricity from a nuclear plant.

Meeting tighter limits on air pollution is an ambitious task — one that would be virtually impossible without the clean-air benefits of nuclear power. The Department of Energy recognizes nuclear energy's essential role, identifying it as the single most-effective strategy for reducing air pollution.

Nuclear power is the only expandable, large-scale energy source that avoids air pollution and can meet the electricity demands of our growing economy. Nuclear plants do not emit carbon dioxide or other greenhouse gases linked to global warming, nor do they emit pollutants that contribute to haze or smog.

Here's another way to look at nuclear energy's positive impact: Based on 1999 figures, if nuclear plants had to be replaced with oil- or coal-burning plants, the U.S. would have to eliminate 135 million passenger cars (about half of all cars!) just to keep our carbon dioxide emissions at current levels.

With regard to security, the nation's 103 nuclear power plants are among the best-defended industrial facilities in the U.S. And today's nuclear plants have state-of-the-art safety features to prevent accidents.

Several notable environmentalists have recently endorsed nuclear energy. They believe global warming is increasingly our most pressing environmental concern, and recognize nuclear energy is a key part of the solution.

— **Scott Peterson, Vice President**
Nuclear Energy Institute

NO

Nuclear energy is not the answer to global warming. It makes no sense to solve one set of environmental problems by creating a bigger and more serious set of problems. And nuclear energy is full of very big and very serious problems.

Although new nuclear power plants would certainly be safer than older plants, the consequences of a major accident are still the same: widespread and long-lasting radiation pollution affecting several generations. An explosion at the Chernobyl nuclear reactor in the Soviet Union in 1986 killed 31 people and caused hundreds of thousands of cases of delayed illnesses.

In addition, nuclear power plants make attractive targets for terrorists. A disaster caused by sabotage or attack would cause great harm to people and the environment. Another problem for the environment is the spent fuel from nuclear power plants, which remains toxic for thousands of years. The U.S. still has no operational long-term repository to store this spent fuel safely.

The process of turning uranium into fuel for nuclear reactors can be easily modified to produce uranium for nuclear bombs. Pakistan's and India's nuclear bombs were made this way. The potential use of these weapons — possibly by terrorists — would be catastrophic to our environment.

Instead of investing in nuclear power, which just trades one set of problems for another, let's invest in renewable energy sources like wind and solar energy. They may cost a little more now, but they don't cause any harm — and they don't run out.

— **Kelly Kissock, Associate Professor of Engineering**
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