

Is Nuclear Energy Renewable? How about “Inexhaustible”?

[February 7, 2015 at 10:00am](#)

For quite some time we've been debating the argument that nuclear energy is equally “renewable” as energy derived from hydro, solar, wind, and biomass. Our thought process goes like this...

Rivers go dry with over use and periods of drought, and winds shift with changing weather patterns such as those that will occur with global climate change. The availability of biomass is dependent on favorable weather and must be replenished using agricultural processes that are reliant on fossil fuels. The ultimate energy source of all these “renewables” is the sun, and while the sun is not “infinite,” it is unlikely to extinguish during the course of human existence. The ability of the sun to replenish hydro, wind, and biomass make these energy sources **renewable**.

In contrast, the source of nuclear energy is fuel contained entirely on planet Earth. And while there are a finite number of uranium and thorium atoms on the planet, the supply will last for as long as human beings need it. The myth propagated by the anti-nuclear crowd that we will run out of fuel for nuclear reactors is simply untrue. They grossly underestimate the amount of uranium that exists, they discount already proven technologies like breeder reactors, which are now beginning to come on-line in China, and they ignore the existence of thorium, a fuel four times more plentiful than uranium. We have sufficient nuclear fuel to last for at least 100,000 years, even if we expand the number of nuclear plants by more than a factor of ten.

This will make nuclear fuel last well into the next major glacial period which is due in about 100,000 years or less. When this ice age descends upon our advanced civilization, no one knows if or how we will survive it. This makes nuclear energy **inexhaustible**.