

## Advantages of Nuclear Energy

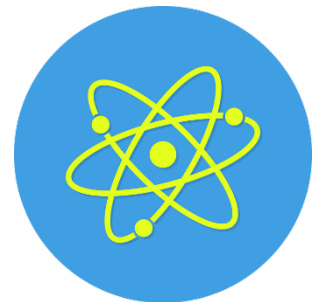
Today, approximately 20% of the electricity produced in the United States is generated using nuclear energy. Nuclear Power Plants use controlled nuclear fission of uranium atoms to create heat. This heat is then used to turn water into steam, which in turn powers electrical generators. Nuclear power has some definite advantages.

Nuclear power produces very few greenhouse emissions. In fact, greenhouse gases have decreased since nuclear power has become more widespread.

The start-up cost of establishing a nuclear power plant is fairly high. However, nuclear power can also produce electricity very inexpensively. Uranium is affordable, and a nuclear reactor, once built, has a lifespan of up to 60 years which means the overall cost of producing electricity with nuclear power is actually fairly low.

At the moment, nuclear power is fairly reliable. Unlike solar and wind energy, it is not dependent on weather conditions. And once running, a nuclear power plant can run uninterrupted for up to a year.

Though estimates suggest we may run out of uranium in about 80 years, it is expected to far outlast the Earth's supply of fossil fuels. Also, because so much less fuel is required than fossil fuels in order to produce the same amount of energy, nuclear power is considered extremely proficient.



Uranium is not a renewable resource. However, it is possible to produce other fissionable elements. For example, we can produce plutonium with the by-products of chain reaction. Scientists are also looking at the prospect of using fusion, the opposite of fission, to create power.