

NUCLEAR ENERGY

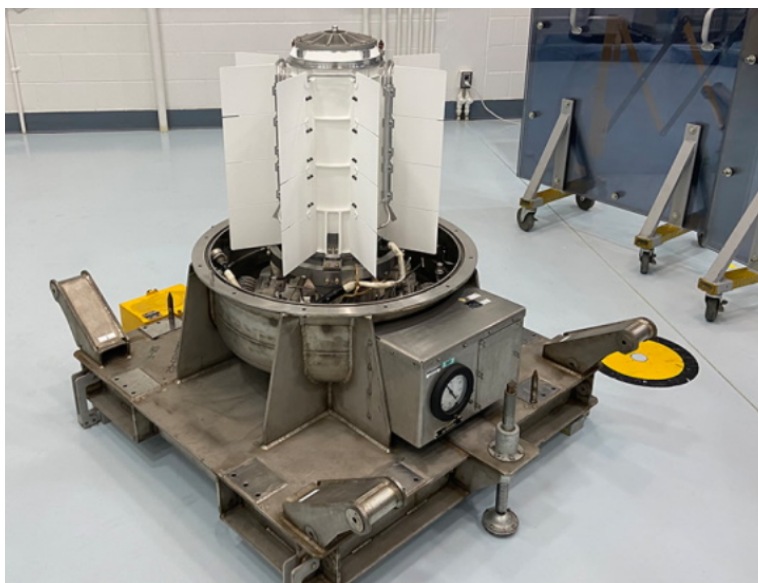
THE BETTER ENERGY

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Nuclear Energy - The Better Energy is an initiative to create awareness about the applications of peaceful Nuclear Energy. We proudly present our November newsletter.

NUCLEAR 101

Nuclear 101 is a section where we will bring to you some of the most basic concepts of Nuclear Physics explained in a non-specialist way



Used for small power requirements (up to 5kW), the RTGs work on a simple principle of converting the decay heat released from the radioactive isotopes into electrical energy. The most widely used fuel candidate for these RTGs is the radioactive isotope Plutonium-238. Being an unstable atom, Pu-238 loses energy to reach a stable stage. To achieve this, the Pu-238 atom is bombarded by a high energy neutron, causing it to split and release alpha particles. The energy released from this process is then converted into electricity.

Since RTGs have no moving parts, they are very reliable and continues for as long as the radioisotope source produces a useful level of energy. RTGs have been used to power various space exploration missions such as Pioneer-10, Pioneer-11, Voyager-1, Voyager- 2, Galileo, Cassini, and the Mars Science Laboratory. Also recently, the US Department of Energy has delivered a Multi-Mission RTG (MMRTG), which is to be used for powering the Perseverance Rover of NASA's Mars 2020 mission.

Source: https://thebetterenergy.net/nuclear_in_space

Image source: US Department of Energy (DOE)

Visit our website (thebetterenergy.net) for latest updates about Nuclear Energy

Highlighted Articles

Plasma: A Hot Mess (Part II)



Written by Dhaval Gadariya, this article is the second installment of our Nuclear Fusion series.

In our first step, we saw how a substance changes its physical state upon heating, reaching a state where there is a hot soup of neutrals and charged particles; which we call plasma. We began our quest to understand what defines plasma and saw the first and foremost characteristic: The charge neutrality of plasma. Read to know more.

[READ FULL ARTICLE HERE: HTTPS://THEBETTERENERGY.NET/PLASMA](https://thebetterenergy.net/plasma)

Molten Salt Reactors: Innovation for a sustainable future

Written by Vaishnvi Tiwari, this article will introduce you to the Molten Salt Reactors which rightly serve as an innovation for a sustainable future.

When it comes to the safety of Gen IV fission reactors, Molten Salt Reactors or MSRs stand a class apart. Though there are many reasons for that, one of them is the fact that MSRs generally have the fuel dissolved in the coolant to form a molten salt mixture. Curious? Read further to put an end to your concerns.

MOLTEN
SALT
REACTORS

*Innovation for a
sustainable future*

[READ FULL ARTICLE HERE: HTTPS://THEBETTERENERGY.NET/MSR](https://thebetterenergy.net/msr)

DID YOU KNOW?

If you are an employee at the Grand Central Station at NYC, your average annual radiation dose is increased by 120 mrem. It is attributed to the high uranium content of its granite walls. On the other hand, living within 50 miles of a Coal plant adds 0.03 mrem to the average annual radiation dose of a person while living within 50 miles of a Nuclear plant adds only 0.009 mrem.



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