How a Small Nuclear Reactor Could Power a Colony on Mars or Beyond (Op-Ed)

January 18, 2018

How a Small Nuclear Reactor Could Power a Colony on Mars or Beyond (Op-Ed)

by Patrick McClure and David Poston

When we imagine sending humans to live on Mars, the moon or other planetary bodies in the not-so-distant future, a primary question is: How will we power their colony? Not only will they need energy to create a habitable environment, they'll also need it to get back to Earth. For distant planetary bodies, like Mars, it's inefficient to bring fuel for the trip home; it's just too heavy. That means the astronauts need a power source to make liquid oxygen and propellant.

But what kind of power source is small yet potent enough to reliably power an extraterrestrial habitat?

Enter Kilopower, a small nuclear reactor designed at Los Alamos National Laboratory in conjunction with NASA that the agency hopes will one day power a colony on Mars, the moon or beyond.

This story first appeared in Space.com.

Managed by Triad National Security, LLC for the U.S Department of Energy's NNSA