



## ***Jema Energy actively participates in the largest private nuclear fusion project in the world, located in California, USA***

**Jema Energy is developing the main power systems for the largest experimental private nuclear reactor that the company, TriAlpha Energy, Inc. owns in Orange County, California.**

Specifically, Jema Energy has been awarded the contract for the Power Sources of the main magnets and the Power Sources for the reactor's Plasma Formation Electrodes called the C2W that TriAlpha is building in southern California. Prior to these contracts TriAlpha had commissioned Jema Energy to design a conceptual design of a complex main power system for the reactor.

These important developments just go to show how Jema Energy continues to be a world referent in the exclusive world of Nuclear Fusion Energy.

This innovative Reactor C2W design by TriAlpha Energy supposes an authentic revolution in the world of Nuclear Fusion. Its peculiar cylindrical shape and the fuel used (Hydrogen and Boron-11),

present many advantages over Deuterium and Tritium used in traditional designs, along with the most efficient fusion reaction and the complete lack of **radioactivity** derived from the generation of neutrons. The unique final component for the fusion reaction are 2 low energy Alfa particles, thus the company's name.

TriAlpha deems that the fusion energy can be sold and distributed in the electric grid starting in the decade of 2040. This type of energy will be cheap, clean and abundant. This will be the end of fossil fuels and will suppose, for the most part, the greatest antidote to climate change.

Nuclear fusion, as opposed to fission, is the process through which various atomic nuclei of similar charges join and form a heavier nucleus. Simultaneous a huge amount of energy is released and absorbed, allowing the matter to enter into a plasma state. Even though fusion has a little defined scientific prestige, its evidence from daily use is undeniable: the sun is a titanic fusion reactor that constantly groups hydrogen nuclei to form heavier elements and send us the resulting product in the form of energy.

The fusion generates three to four times the energy of nuclear fission. It's fuel is not toxic or a fossil fuel, and is not really exceptional, since fusion works on common elements like



hydrogen, which is an abundant element in the universe. In the case of any contingency, the fusion reactors don't meltdown, but just stop. They produce very little to no radioactive waste. It also doesn't contaminate, since the result of fusion is helium.

What makes fusion complicated is that the atomic nuclei do not allow themselves to fuse. Atomic nuclei are made up of protons (and normally neutrons) to obtain a positive charge. Since they repel the elements of the same charge, you have to force atoms to join, and for this you need to heat them until they are moving so fast that they release their electrons and become a strange cloud of free electrons and a naked nucleus called plasma. If the plasma reaches truly high temperatures, some of the nuclei crash into each other with enough strength to fuse.