

NearStar Fusion Inc. Discloses Development Effort for a Promising New Type of Fusion Energy

This New Approach to Impact Fusion has the Potential to Rapidly Provide the Planet with Limitless Clean Always-on Energy

CHANTILLY, VIRGINIA, USA, July 13, 2021 /EINPresswire.com/ -- [NearStar Fusion Inc.](https://www.nearstarfusion.com) (NearStar) www.nearstarfusion.com disclosed its effort to develop a new type of clean fusion energy with the potential to power the entire planet. NearStar's fusion energy approach is based on a NASA NIAC funded concept called [Gradient Field Fusion](https://ntrs.nasa.gov/api/citations/20170005430/downloads/20170005430.pdf) <https://ntrs.nasa.gov/api/citations/20170005430/downloads/20170005430.pdf>. The NearStar version is called [Hypervelocity Gradient Field Fusion \(HGFF\)](#) and utilizes a proprietary hypervelocity launcher to drive the pulsed impact fusion reaction.

"Our patentable hypervelocity launcher which will drive the pulsed fusion reaction is a key enabler for the HGFF approach. Additionally, we are also excited about the ability to simultaneously use the HGFF approach for spacecraft fusion propulsion," said Doug Witherspoon President & Chief Scientist of NearStar.

How HGFF Will Work

NearStar's hypervelocity launcher will repeatedly accelerate capsules of fusion fuel through the center of a coil producing a strong magnetic field. A pulsed fusion ignition is achieved as each hypervelocity fuel capsule is rapidly crushed by the converging magnetic field gradient. This repetitive process occurs within a chamber lined with flowing molten salt. The heat from each fusion pulse is captured by the molten salt, and pumped to a heat exchanger to boil water, make steam, and spin a turbine to generate clean always-on electricity. Our goal is to make NearStar Fusion power plants scalable from tens of MW to GW and serve as drop-in replacements for conventional power plants worldwide. A brief animation of the HGFF power plant pulsed operating sequence can be seen here: <https://www.youtube.com/watch?v=lQbhxiYcq60>

About NearStar

The NearStar Fusion Inc. team believes that HGFF is a robust and economical pathway to compact, clean and always-on commercial-scale fusion energy for the planet. HGFF has the potential to rapidly provide a simple robust modular design which can heavily leverage existing

materials and commercially available technologies. This approach to fusion energy may also be suitable for adaptation to burn advanced fusion fuels. To learn more about NearStar Fusion Inc. please visit: www.nearstarfusion.com

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