



**Fusion Energy Milestone from TAE Technologies
Validates Path to Cost-Competitive Carbon-Free Baseload Energy
Company Raises Additional \$280M for Reactor-Scale Demonstration Facility**

*“Norman” Platform Outperforms Goals; Generates Stable High-Temperature Plasmas
Additional Funds Will Support Final Step Toward Commercialization*

Foothill Ranch, CA -- April 8, 2021 -- [TAE Technologies](#), the world’s largest private fusion energy company, has announced a landmark fusion technology milestone by producing stable plasma at 50M+ degrees Celsius in a proprietary compact reactor design that can scale to competitive fusion-generated power. This milestone furthers confidence in TAE’s path to commercialization, and has aided the company in raising \$280M in additional funding. When combined with prior rounds, TAE has now raised over \$880M from some of the world’s most sophisticated investors.

The latest financing is the direct result of TAE achieving its most recent scientific milestone on the path to delivering carbon-free baseload energy from the Hydrogen-Boron (aka H-B11 or p-B11) fuel cycle, the most abundant and environmentally friendly fuel source on Earth, capable of sustaining the planet for millennia.

This success crucially confirms a key differentiator of TAE’s patented technology: a positive relationship between plasma confinement and reactor temperature, meaning that the company’s compact linear configuration *improves* plasma confinement as temperatures rise. By generating such stable high temperature plasmas, TAE has now validated that the company’s unique approach can scale to the conditions necessary for an economically viable commercial fusion power plant by the end of the decade.

A portion of the capital will be used to initiate development of a demonstration facility called “Copernicus” that will operate well in excess of 100 million degrees Celsius to simulate net energy production from the conventional Deuterium-Tritium (D-T) fuel cycle. Copernicus will provide opportunities for TAE to license its technology for D-T fusion, while scaling to its ultimate goal utilizing p-B11.

Use of proceeds will also go to rapid commercialization of TAE’s revolutionary Power Management technology, born out of the power delivery systems for its fusion projects. This technology will be used to extend range, efficiency, and faster charging of electric vehicles, as well as for deployment in residential, commercial, industrial, and utility-scale electrical grid applications.

The continuing delivery of these scientific results has propelled TAE to bring in funding with accelerated velocity, including over \$130M raised just this year. Broad global support has come from existing investors as well as from new strategic partners, sovereign wealth funds, institutional investors, and family offices spanning the globe. The company counts among its shareholders Vulcan, Venrock, NEA, Wellcome Trust, Google and the Kuwait Investment Authority, as well as the family offices of Addison Fischer, Art Samberg, and Charles Schwab, among others.

TAE has received funding in tranches based on projecting and achieving specific programmatic goals. This “money by milestone” approach has kept the company on time and on (or under) budget for its entire existence of more than 20 years.

*** A Milestone for Commercial Fusion ***

Harnessing fusion energy for utility-scale electricity requires confining [plasma](#) at “hot enough” temperatures for a “long enough” amount of time to enable fusion reactions. TAE’s current platform “Norman” nearly doubled its intended goals over an 18-month testing regime and has now demonstrated consistent performance of reaching 50+ million degrees Celsius, replicated over many hundreds of testing cycles -- all in a compact machine that has very attractive economics when scaled up to a full power plant.

In 2015, TAE’s previous machine validated that [the company’s approach can sustain plasma](#) for an indefinite length of time (aka “long enough”). With this most recent milestone, TAE has now unlocked the “hot enough” conditions needed to scale to a reactor level performance.

“This is an incredibly rewarding milestone and an apt tribute to the vision of my late mentor, Norman Rostoker,” said TAE CEO Michl Binderbauer. “Norman and I wrote a paper in the 1990s theorizing that a certain plasma dominated by highly energetic particles should become increasingly better confined and stable as temperatures increase. We have now been able to demonstrate this plasma behavior with overwhelming evidence. It is a powerful validation of our work over the last three decades, and a very critical milestone for TAE that proves the laws of physics are on our side.”

“The Norman milestone gives us a high degree of confidence that our unique approach brings fusion within grasp technologically and, more important, economically,” continued Binderbauer. “As we shift out of the scientific validation phase into engineering commercial-scale solutions for both our fusion and power management technologies, TAE will become a significant contributor in modernizing the entire energy grid.”

“TAE is providing the miracles the 21st century needs,” said Addison Fischer, TAE Board Director and longtime investor who has been involved with conservation and environmental issues for decades. Fischer also founded VeriSign and is a pioneer in defining and implementing security technology underlying modern electronic commerce. “TAE’s most recent funding positions the company to undertake their penultimate step in implementing sustainable aneutronic nuclear fusion and power management solutions that will benefit the planet.”

Norman, TAE’s fifth-generation \$150M+ National Laboratory-scale fusion device, achieved this milestone as part of a well-choreographed sequence of campaigns consisting of over 25,000 fully-integrated fusion reactor core experiments. The experiments were optimized with the most advanced computing processes available, including machine learning from an ongoing collaboration with Google (which produced the [Optometrist Algorithm](#)) and processing power from the Department of Energy’s [INCITE](#) program that leverages exascale-level computing.

The milestone results have been reviewed and endorsed by the company’s independent Science Panel, including over the years multiple Nobel laureates and Maxwell Prize winners, as well as its Board of Directors, including Jeffrey Immelt, former CEO, GE; John Mack, former CEO, Morgan Stanley; Richard Meserve, President Emeritus, Carnegie Institution for Science and Former Chairman of U.S. Nuclear Regulatory Commission; Ernest Moniz, former U.S. Secretary of Energy; and others.

TAE Technologies is a global, institutionally backed private enterprise which keeps its progress largely confidential and proprietary.

For more information on TAE Technologies and the benefits of fusion energy, visit tae.com.



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ABOUT TAE TECHNOLOGIES

TAE Technologies was founded in 1998 to commercialize safe, cost-effective fusion power as quickly as possible and with the cleanest environmental profile. With more than 900 issued patents, over \$880 million in private capital, and six generations of National Laboratory-scale devices, TAE is now on the cusp of delivering a transformational energy source capable of sustaining the planet for centuries. The company's revolutionary approach has led to a robust portfolio of adjacent commercial innovations in power management, electric mobility, life sciences, and more. TAE is based in Foothill Ranch, California, and maintains an international office in Lucerne, Switzerland. Multidisciplinary and mission-driven by nature, TAE is leveraging proprietary science and engineering to create a bright future for us all.