



March 16, 2017

Senator John Barrasso
Chairman, Senate Environment and Public
Works Committee
410 Dirksen Senate Office Building
Washington, DC 20510

Senator Cory Booker
359 Dirksen Senate Office Building
Washington, DC 20510

Senator Mike Crapo
239 Dirksen Senate Office Building
Washington, DC 20510

Senator Deb Fischer
454 Russell Senate Office Building
Washington, DC 20510

Senator James Inhofe
205 Russell Senate Office Building
Washington, DC 20510

Senator Shelley Moore Capito
172 Russell Senate Office Building
Washington, DC 20510

Senator Joe Manchin
306 Hart Senate Office Building
Washington, DC 20510

Senator Sheldon Whitehouse
530 Dirksen Senate Office Building
Washington, DC 20510

Dear Senators,

Tri Alpha Energy, headquartered in Foothill Ranch CA, is the world's largest private fusion company. We have approximately 160 employees, 450 patents issued or pending globally, and have raised over \$500 million in private capital. Since our founding almost 20 years ago, we have stayed focused on the goal of developing clean fusion technology for the commercially competitive generation of electricity. This has led to the development of a unique combination of well-known particle accelerator and plasma physics that enables a compact, safe, and sustainable "clean-fusion" technology. After successful operation of our first national lab- scale plasma device, we are now nearing completion of a 10x higher energy plasma device that we expect will provide final proof-of-science for our approach by the end of 2018.

We are writing to express support for your bill S. 512, the *Nuclear Energy Innovation and Modernization Act*. You have recognized that fusion energy, along with traditional nuclear fission, present an important new frontier for zero-emission, baseload electricity generation. Global markets and the growing climate crisis demand that new energy technologies be developed, but this can only happen in a favorable policy environment.

S. 512 would establish an important pathway for licensing new reactors, including fusion reactors, informed by the potential risks of each respective design. Tri Alpha Energy agrees that the NRC needs new resources and structures for permitting new nuclear designs, both because the current permitting structure is prohibitively protracted, and because some new reactor concepts being proposed today are so vastly different from incumbent light water fission designs. Tri Alpha Energy's technology concept, for example, presents virtually none of the risks associated with either



traditional nuclear or other types of fusion. Our input materials are non-fissilable and environmentally benign, there is zero possibility of meltdown, and the volume and radioactivity of operational waste will be negligible. Providing NRC authority to prioritize relative risk ensures that taxpayer dollars can be used where they are needed. It will be critical to moving fusion energy out of the laboratory to commercialization.

S. 512 is also proactive on reducing timelines and providing greater certainty for technology developers during the permitting process. This will not only help bring fusion to market more quickly, but will also provide greater surety to the private investor community and bring development capital off the sidelines.

If there is an opportunity to improve this already strong legislation, we would recommend directing NRC to conduct a high-level review of the available technical literature on the expected radiation and safety profiles of the most mature advanced nuclear technology proposals under development today. Such a report should consider fusion proposals, including designs that would utilize feedstocks other than deuterium-tritium. This would help NRC establish an early foundation of information for the more appropriate regulatory pathways these technologies will require.

We commend you and your staff for recognizing that innovative new technologies, including fusion, need to see a viable regulatory path in the United States. This thoughtful legislation will help move the industry forward. We hope that S. 512 will pass favorably out of Committee and we offer our support to help move the bill to final passage. Please contact me with any questions at rbarth@trialphaenergy.com.

Sincerely,

A handwritten signature in black ink that reads "Richard C. Barth".

Richard C. Barth, Ph.D.
Senior Vice President, Government Relations
Mobile: 202-390-0338