

Statement from Early Career Fusion Scientists on the Final Report of the National Academy of Sciences Committee on a Strategic Plan for Burning Plasma Research

March 10, 2019

We, the undersigned members of the Early Career Fusion Scientist (ECFS) community, are writing to express our support for the two main recommendations of the National Academy of Science (NAS) Final Report on a Strategic Plan for Burning Plasma Research ('the Report')¹:

- The United States should remain an ITER partner as the most cost-effective way to gain experience with a burning plasma at the scale of a power plant.
- The United States should start a national program of accompanying research and technology leading to the construction of a compact pilot plant that produces electricity from fusion at the lowest possible capital cost.

Recent polling shows that the ECFS community [strongly agrees](#) with both remaining an ITER partner ([83/10](#)) and initiation of a national research program to construct a compact pilot plant at lowest possible capital cost ([89/5](#)). Results are given as a percentage of people who ([agree / disagree](#)); see² for a discussion of the methodology. We commend the committee that created the Report for their consideration of the views of the ECFS community within their comprehensive review of the U.S. fusion program.

Previous discussion and polling² within the ECFS community shows that 1) *our primary motivation for participating in magnetic fusion energy research is the goal of a fusion power plant*, 2) *the vision for the US program should be to develop the science and technology basis needed to stimulate sufficient industry involvement to bring fusion to market*, 3) *access to a burning plasma should be a major focus of the U.S. fusion program*, and 4) *a new major domestic facility is a necessary component of a U.S. strategic plan*. These results demonstrate a basic alignment between the Report and many of the views of the broader ECFS community. The polling also indicates that *the ECFS should interface with the community to help organize and develop a strategic plan*. We therefore look forward to continued participation in the ongoing community planning, and hope this endorsement assists in the realization of the vision of the Report with a strong sense of urgency.

Sincerely,

¹Final Report of the Committee on a Strategic Plan for U.S. Burning Plasma Research: <https://doi.org/10.17226/25331>

²Perspectives on Magnetic Fusion Energy Directions from Early Career Fusion Scientists: <http://sites.nationalacademies.org/cs/groups/bpaside/documents/webpage/bpa.184875.pdf>

The following individuals consented to having their names appear on this statement through the online voting forum:

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