

DOE Under Secretary for Science & Innovation Dr. Geraldine Richmond
Remarks as prepared for delivery
Fusion Power Associates 43rd Annual Meeting and Symposium: The Road Ahead
December 7th, 2022

Good morning. It's great to be here. It's been quite the year for fusion, with OSTP and DOE starting to work together just over a year ago to explore a *Bold Decadal Vision for Commercial Fusion Energy*, which led to the White House Summit in March.

As you all know better than anyone—the fusion landscape is changing dramatically, with growing technical readiness and strong market interest. Our fusion R&D strategy has to change with it to reach fusion's climate, energy-security, and energy-justice benefits at a time when they are so very needed.

In addition, fusion is increasingly being recognized within the federal government as an important national-security issue—as we return to an era of great-power competition.

The Biden Administration recognized fusion energy as one of five top priorities in a recently released White House report, *U.S. Innovation to Meet 2050 Climate Goals*, as part of its Net-Zero Game Changers Initiative.

This document is spurring new interagency planning and coordination in parallel to DOE's own Department-wide planning efforts in fusion.

Since the White House fusion event held in March 2022, DOE has worked hard to develop and launch the *Bold Decadal Vision for Commercial Fusion Energy*.

My office hosted an in-person DOE workshop in June to gather stakeholder input on *Fusion Energy Development via Public-Private Partnerships*.

In less than 3 months, we developed and announced the Fusion Energy Sciences *Milestone-Based Fusion Development Program* funding opportunity announcement as a centerpiece of the bold decadal vision for supporting private-sector-led development paths toward a fusion pilot plant. Full FOA applications are due December 15th!

My office continues to work hard in support of increased funding for the Office of Science, which would enable us to launch additional critical initiatives to support the Bold Decadal Vision. These potentially include design activities for a Fusion Prototypic Neutron Source and

new FPP-relevant R&D programs for lab- and university-led teams.

We stood up a DOE Fusion Crosscut Team to engage program offices from across DOE—including the Office of Science, ARPA-E, Nuclear Energy, NNSA, Environmental Management, and the Office of Economic Impact and Diversity—to bring in the multiple equities required to tackle a broad range of R&D issues. Coordination will be critical to prepare the path to demonstration and commercialization, including energy justice and building a diverse workforce.

On that note--it's critical that we put a strong focus on Energy and Environmental Justice in fusion. The development and deployment of many energy technologies is marked by the creation and entrenchment of environmental injustice.

Communities of color have not been able to benefit equally from the clean energy transformation that's taking place across the country. We've got to fix that through research and deployment methods that facilitate deep investments in clean energy infrastructure—and that ultimately build wealth for communities of color.

We need to create a path to fusion that centers community engagement from the earliest stages. We have to anticipate the potential benefits and burdens of fusion, including its risks, to build social acceptance and preempt issues of injustice.

We have a chance to harness the energy of the sun and stars, but we must do so in a way that benefits everyone.

It's also critical that we improve diversity, equity, inclusion, and accessibility, or DEIA, in fusion. With the fusion industry poised to potentially grow exponentially in size in the coming years, we have a narrow window of opportunity to get this right from the beginning.

Many in the fusion community recognize that this is a major issue and are willing to work on improving the situation. This is not only the right thing to do, but it is desperately needed if fusion is to have an adequate workforce both to get to a pilot plant and to support a future fusion industry.

DEIA is not just a “nice to have;” research shows that high performing teams are both cognitively and demographically diverse, encompassing a wide array of lived experiences. A workforce that looks like America is essential to reaching the technical and societal outcomes necessary for fusion to succeed.

But we can't get there unless all of us become part of the solution. I encourage each and every one of you to ask yourselves the following about your own research team, your organization or department, and your institution as a whole.

- Do members of underrepresented groups have equal access to fusion and plasma activities and opportunities?

- Have we taken meaningful action to ensure our workplace is a welcoming, inclusive environment in which everyone can thrive and be heard?
- Are members of underrepresented groups presented with equal opportunities for leadership and recognition?
- And finally, is diversity within our organization improving in a meaningful and measurable way?

What are you and your institutions doing to use evidence-based practices to address each of these areas? How are you consulting members of your workforce as well as professional experts for advice, planning, and most importantly, implementation?

Fusion has a once-in-a-lifetime opportunity to get diversity, equity, inclusion and accessibility right from the beginning. We can't let that chance slip away.

Thank you again for inviting me today. I hope you have a great meeting.