

DEPARTMENT OF ENERGY**Fusion Energy Public-Private Consortium Framework**

AGENCY: Fusion Energy Sciences, Office of Science, Department of Energy.

ACTION: Request for information (RFI).

SUMMARY: The Office of Science (SC) in the Department of Energy (DOE) invites interested parties to provide input on a proposed fusion energy public-private consortium framework (PPCF). The proposed PPCF would aim to amplify Federal funding, by catalyzing and bringing together State/local government, private, philanthropic funding, and partnerships to accelerate fusion energy research, development, demonstration, and deployment (RDD&D). Through a phased approach, the PPCF would deliver and operate small-to-medium scale test stands and conduct research and development (R&D) with these tools. The proposed PPCF will help resolve significant, remaining Science & Technology (S&T) gaps to a commercially relevant fusion pilot plant (FPP). A PPCF is needed at this time to achieve the pace of R&D and project delivery with the required funding within the United States (U.S.) Bold Decadal Vision (BDV) timeframe. The proposed PPCF is envisioned to be executed by a network of regional teams that would stimulate economic development and domestic fusion supply chains anchored in fusion S&T translation and innovation.

DATES: Responses to this RFI must be received by July 22, 2024.

Webinar: DOE will hold a public webinar on Thursday, July 11, 2024, from 3–4 p.m. ET. Connection information can be found here: https://science-doe.zoomgov.com/webinar/register/WN_8eAg3pUVSZC3vKiF7pycFw.

ADDRESSES: DOE is using the www.regulations.gov system for the submission and posting of public comments in this proceeding. All comments in response to this RFI are therefore to be submitted electronically through www.regulations.gov, via the web form accessed by following the “Submit a Formal Comment” link.

FOR FURTHER INFORMATION CONTACT:

Questions may be submitted to ppcf@science.doe.gov or to Colleen Nehl at (301) 903–4920.

SUPPLEMENTARY INFORMATION:

To support development of a competitive fusion power industry in the U.S., the Fusion Energy Sciences (FES) program is exploring the near-term feasibility of a fusion energy public-private

consortium framework (PPCF). This PPCF, inspired by the successful 1980s public-private partnership (PPP) between the Department of Defense and Sematech,¹ would support the U.S. BDV.³

The proposed PPCF would aim to accelerate fusion energy RDD&D and amplify Federal funding by bringing together State/local government, private, and philanthropic funding, with an initial focus on delivering and operating small-to-medium scale test stands and conducting R&D with these tools to help resolve significant, remaining S&T gaps (aligned with FPP technology roadmaps of private-sector fusion developers and critical supply-chain providers).⁴ A key rationale for pursuing a PPCF at this time is because the required funding and pace of R&D and project delivery are not readily achievable within the BDV timeframe. The proposed PPCF is envisioned to be executed (*e.g.*, tool delivery and operation, R&D, growing supply chains, and broader engagements/activities to support fusion demonstration and commercialization) by a network of regional ecosystems that will build upon local expertise, stimulate economic development, and bolster domestic supply chains anchored in fusion S&T translation and innovation.⁵

The PPCF would be aligned and coordinated with various priority initiatives of the BDV and the SC FES program, such as the Milestone-Based Fusion Development Program⁶ (“Milestone Program”) and Fusion Innovation Research Engine (FIRE)

¹ The purpose of Sematech was to (1) conduct research on advanced semiconductor manufacturing techniques and (2) develop techniques to use manufacturing expertise for the manufacture of a variety of semiconductor products; https://www.esd.whs.mil/Portals/54/Documents/FOID/Reading%20Room/Science_and_Technology/10-F-0709_A_Final_Report_to_the_Department_of_Defense_February_21_1987.pdf.

² <https://www.csis.org/analysis/implementing-chips-act-sematechs-lessons-national-semiconductor-technology-center>.

³ <https://www.whitehouse.gov/ostp/news-updates/2022/03/15/fact-sheet-developing-a-bold-vision-for-commercial-fusion-energy>.

⁴ The S&T gaps and critical testing platforms, discussed in multiple recent consensus expert reports and ongoing FESAC charges, will be formally laid out in a national fusion S&T roadmap under development by FES.

⁵ The PPCF is also partially inspired by J. Gruber and S. Johnson, *Jump-starting America: How Breakthrough Science Can Revive Economic Growth and the American Dream* (Public Affairs, New York, 2019).

⁶ Program announcement: <https://www.energy.gov/science/articles/department-energy-announces-50-million-milestone-based-fusion-development-program>; selections: <https://www.energy.gov/articles/doe-announces-46-million-commercial-fusion-energy-development>.

Collaboratives,⁷ taking advantage of regional capabilities and investing in infrastructure (*e.g.*, test and manufacturing tools) to de-risk fusion S&T.

The purpose of the PPCF would be to (1) conduct applied R&D to help address and resolve common, priority S&T gaps in the technology roadmaps of private-sector-led FPPs aligned with the SC FES Fusion Science & Technology (FS&T) Roadmap, with an emphasis on pre-competitive R&D; (2) deliver and operate critical test platforms for the benefit of all consortium members; and (3) stimulate the growth of supply chains that will be needed to support fusion demonstration and deployment. The vision of the consortium would be to enable timely commercial fusion demonstration and deployment led by the private sector and to help establish a world-leading and vibrant U.S. fusion industry.

Questions for Input

SC is issuing this RFI to seek input on the vision, mission, impact, near-to-medium term feasibility, including funding, and structure of the proposed fusion energy PPCF. Responses should address/discuss any or all of the following topics (limit all responses to five pages total):

- PPCF vision, mission, impact (including proposed examples discussed previously);
- How can a PPCF provide incentives from both public and private sector to invest in common Fusion Materials & Technology (FM&T) de-risk capabilities?
- What are some cost-share models that could incentivize the private sector in engaging with local, State, and Federal government to address FM&T gaps?
- What are the priority S&T gaps in the technology roadmaps of private-sector-led FPPs which a PPCF could address?
- What will be the impact of the PPCF, as envisioned?
- How can a PPCF help support supply chains, community engagement and technology adoption of fusion energy in the long term?
- On which topics should a public-private consortium framework focus? Possible topics include (but are not limited to): the fusion fuel cycle,

⁷ The new FES FIRE (Fusion Innovation Research Engine) Collaboratives program will consist of virtual, centrally managed teams (led by national laboratories and/or universities) called “Collaboratives.” This program bridges FES’s foundational research programs to the work and needs of the growing fusion industry. <https://science.osti.gov/fes/-/media/grants/pdf/foas/2024/DE-FOA-0003361.pdf>.

blankets, structural materials, and gyrotrons.

- What are some public-private consortia models that could be emulated or adapted to best serve the needs of the U.S. in establishing a robust fusion power industry?

- Near-to-medium term (in the next three, five, and ten years) feasibility of a fusion energy PPCF:

- Which sources of funding are likely to be available from non-Federal sources (including State/local governments, private sector, philanthropy)?

- How can universities and national laboratories support a fusion energy PPCF and what important roles can they serve?

- What is the expected amount of funding needed to make a meaningful impact toward bridging S&T gaps?

- What type of work (in both delivery/operation of tools and associated R&D) would be considered “pre-competitive?”

- What are key short-term fusion FM&T capabilities needed now that could be supported through a PPCF and what are some longer-term capabilities that should be considered?

- PPCF organizational structure and relationship to DOE:

- Which flexibilities may be required to meet S&T goals in the areas of intellectual property, U.S. manufacturing, research security, foreign work, and partnerships, etc.?

- How may the PPCF stimulate partnerships with State/local governments and economic development in communities? How about international partnerships?

- What organizational structures may work to achieve the mission, vision, and impact of the proposed PPCF?

Signing Authority

This document of the Department of Energy was signed on June 3, 2024, by Harriet Kung, Acting Director, Office of Science, pursuant to delegated authority from the Secretary of Energy. The document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This administrative process in no way alters the legal effect of this document upon publication in the **Federal Register**.

Signed in Washington, DC, on June 4, 2024.

Treana V. Garrett,

Federal Register Liaison Officer, U.S. Department of Energy.

[FR Doc. 2024–12539 Filed 6–6–24; 8:45 am]

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DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following exempt wholesale generator filings:

Docket Numbers: EG24–198–000.

Applicants: Liberty 1 Solar, LLC.

Description: Liberty 1 Solar, LLC submits notice of self-certification of exempt wholesale generator status.

Filed Date: 6/3/24.

Accession Number: 20240603–5116.

Comment Date: 5 p.m. ET 6/24/24.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER24–2171–000.

Applicants: Tri-State Generation and Transmission Association, Inc.

Description: § 205(d) Rate Filing: Formula Rate Tariff to be effective 7/1/2024.

Filed Date: 5/31/24.

Accession Number: 20240531–5418.

Comment Date: 5 p.m. ET 6/21/24.

Docket Numbers: ER24–2172–000.

Applicants: PJM Interconnection, L.L.C.

Description: § 205(d) Rate Filing: Amendment to ISA, SA No. 1442; Queue No. NQ–123 (amend) to be effective 8/3/2024.

Filed Date: 6/3/24.

Accession Number: 20240603–5012.

Comment Date: 5 p.m. ET 6/24/24.

Docket Numbers: ER24–2174–000.

Applicants: Nebraska Public Power District, Southwest Power Pool, Inc. *Description:* § 205(d) Rate Filing: Nebraska Public Power District submits tariff filing per 35.13(a)(2)(iii): Nebraska Public Power District Revisions to Formula Rate to be effective 1/1/2025.

Filed Date: 6/3/24.

Accession Number: 20240603–5136.

Comment Date: 5 p.m. ET 6/24/24.

Docket Numbers: ER24–2175–000.

Applicants: Alabama Power Company, Georgia Power Company, Mississippi Power Company.

Description: § 205(d) Rate Filing: Alabama Power Company submits tariff filing per 35.13(a)(2)(iii): Goat Rock Solar LGIA Filing to be effective 5/22/2024.

Filed Date: 6/3/24.

Accession Number: 20240603–5137.

Comment Date: 5 p.m. ET 6/24/24.

Docket Numbers: ER24–2176–000.

Applicants: Elwood Energy LLC.

Description: Request for Limited Waiver of Elwood Energy LLC.

Filed Date: 5/31/24.

Accession Number: 20240531–5453.

Comment Date: 5 p.m. ET 6/21/24.

Docket Numbers: ER24–2177–000.

Applicants: Louisiana Energy and Power Authority.

Description: Request to Recover Costs Associated with Acting as a Local Balancing Authority of Louisiana Energy and Power Authority.

Filed Date: 6/3/24.

Accession Number: 20240603–5191.

Comment Date: 5 p.m. ET 6/24/24.

Docket Numbers: ER24–2179–000.

Applicants: Bayou Galion Solar Project, LLC.

Description: Baseline eTariff Filing: Application For Market Based Rate to be effective 8/3/2024.

Filed Date: 6/3/24.

Accession Number: 20240603–5214.

Comment Date: 5 p.m. ET 6/24/24.

The filings are accessible in the Commission’s eLibrary system (<https://elibrary.ferc.gov/idmws/search/fercgensearch.asp>) by querying the docket number.

Any person desiring to intervene, to protest, or to answer a complaint in any of the above proceedings must file in accordance with Rules 211, 214, or 206 of the Commission’s Regulations (18 CFR 385.211, 385.214, or 385.206) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: <http://www.ferc.gov/docs-filing/efiling/filing-req.pdf>. For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

The Commission’s Office of Public Participation (OPP) supports meaningful public engagement and participation in Commission proceedings. OPP can help members of the public, including landowners, environmental justice communities, Tribal members and others, access publicly available information and navigate Commission processes. For public inquiries and assistance with making filings such as interventions, comments, or requests for rehearing, the public is encouraged to contact OPP at (202) 502–6595 or OPP@ferc.gov.