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# Bipartisan Policy Center Response to Request for Information on the Foundation for Energy Security and Innovation

**TO:** Office of Technology Transitions, U.S. Department of Energy

**DATE:** April 18, 2023

**RE:** Request for Information on the Foundation for Energy Security and Innovation

**FROM:** Bipartisan Policy Center
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The Bipartisan Policy Center welcomes the opportunity to comment on the establishment of the Foundation for Energy Security and Innovation (FESI). BPC has been a longtime supporter of FESI and is pleased to see DOE taking important steps towards its establishment.

In order to maximize the impact of FESI, BPC has three key recommendations:

1. FESI should reassess its focus every 5 years,
2. FESI should prioritize bipartisanship in all aspects of its operation, and
3. FESI should prioritize use cases that DOE cannot accomplish on its own or would be slow to accomplish on its own.

These points are elaborated upon below.

**FESI should reassess its focus every 5 years. (Question 1)**
Local and global challenges affecting energy security and innovation are rapidly changing. In the past three years, the world has navigated a global pandemic, the Russian war on Ukraine, and on a more positive note, the billions of dollars in funding for clean energy innovation and commercialization through the IIJA and IRA that has spurred climate action from the governments of other countries. To operate effectively in this constantly changing environment, FESI should be a nimble organization that is responsive to the challenges that are most relevant at a given moment.

In practical terms, this means that FESI should have very different areas of focus in the short-term and the long-term. In the short-term, FESI should prioritize activities that will support DOE's implementation of programs under IIJA and IRA. There is immense pressure from Congress and the broader threat of climate change that makes it imperative for these investments to succeed by rapidly accelerating the commercialization of technologies that can reduce carbon emissions. Examples of activities to prioritize in the short-term are addressed in the last section.

In the long-term, FESI should broaden its focus to include the commercialization of DOE investments beyond the energy sector. This could include developing commercialization activities for DOE national labs and Office of Science technology areas. This could also include addressing emissions in sectors that don't fall neatly into DOE's existing structure or intersectional issues under the jurisdiction of multiple federal agencies (for example, sustainability measures in the clothing industry or decarbonization of maritime transportation).

**FESI should prioritize bipartisanship in all aspects of its operation. (Question 6)**
While recent years have shown growing interest from both Republicans and Democrats on addressing climate change, supporters still disagree on the right approach. For example, some activists view carbon capture technology as a technology that is delaying transition away from fossil fuels, while its proponents view it as a necessary technology to maintain reliable and resilient clean energy and to achieve net-zero emissions by 2050.

To ensure the long-term success of FESI, it is important that bipartisanship is a core tenet of all aspects of FESI. To start, FESI should focus on building a bipartisan Board of Directors to help insulate the organization against political blowback from investment decisions that are made. A well-balanced board might include philanthropy (both from right and left leaning organizations), investors (including Venture Capital and project finance banks, as well as investors targeting companies in rural and urban areas), and retired CEOs of major energy technology companies or utilities who have firsthand knowledge of the challenges with large-scale deployment of clean technologies and the U.S. innovation lifecycle.

In its governance model, FESI should operate independently of DOE while in coordination with DOE. This means that FESI funding investments should be made according to what FESI leadership determines to be of greatest importance, rather than at the direction of DOE, which will be under the influence of the current Presidential Administration and Congress.

**FESI should prioritize use cases that DOE cannot accomplish on its own or would be slow to accomplish on its own. (Questions 2, 3, and 5)**
There are several use cases for FESI that would be impactful in the short-term and long-term. These are elaborated upon in this section.

<u>Short-term</u>
*FESI should address social barriers to broader energy deployment.*
As mentioned previously, ensuring that IIJA and IRA investments are broadly successful is an important short-term goal for DOE. To assist with achieving this goal, FESI should provide services to build support for energy technology projects. This could include supporting stakeholder engagement by providing funds for communities to get access to trusted information to make decisions about energy projects. This could also include convening activities, in which FESI could host relevant stakeholders to explore

and address barriers to greater energy technology adoption, integrating considerations related to markets, policies, community acceptance, and state policies and Public Utility Commissions. This could prove particularly beneficial because the onus for stakeholder engagement for energy projects currently falls upon project sponsors which, given their financial interest in moving projects forward, are likely to be met from a position of limited trust at best by local communities.

*FESI should make it easier to navigate and access DOE programs.*
While IIJA and IRA provided important incentives and funding to assist with technology scaleup and adoption, many of the companies and entrepreneurs who will be developing our nation's cutting-edge climate solutions, as well as the communities who will host energy projects, are not practiced in engaging with the federal government and navigating DOE programs and application processes. FESI should address this issue by serving as a "front door" to DOE programs. An example of such an activity could include "matchmaking" services where potential awardees can approach FESI with their technology or company, and FESI can suggest the best program or facility (in the case of the national labs) for a potential awardee to apply for to make progress on their technology.

Additionally, FESI can assist with application and grant management procedures to make it easier for applicants to navigate federal processes. Several private firms exist that charge nascent companies large fees for assistance with navigating DOE programs and writing and managing federal grants. Companies may benefit from using their resources for technology development rather than funding services that FESI could provide for free or at low-cost.

Unlike other federal agencies, DOE does not have regional offices in states and localities around the nation. Examples of such entities at other agencies include the United States Department of Agriculture Extension Offices, National Institute of Science and Technology Manufacturing Extension Partnerships, and Small Business Administration District Offices. FESI could work to build regional capacity on energy expertise by offering the type of "matchmaking" support mentioned previously to state and local energy offices, in addition to communities and nonprofit organizations. In states that have a national lab, this type of service could possibly be offered through the labs, but these services should be resourced adequately and should not be viewed as a competing activity for other lab facilities and programs.

*FESI should assist with new DOE commercialization activities such as demand-side support.*
As part of DOE's broadened mandate to support later-stage commercial deployment of clean energy technologies, OCED has sought information[1] on how to engage in demand-side activities such as direct procurement, price floors, and contracts for differences. These activities have the potential to support other DOE activities – such as the direct air capture and hydrogen hubs – by de-risking technology

[1] RFI DOE-FOA-0002995/OCED-RFI-23-1: Request for Information (RFI) on the Department of Energy's Use of Demand-side Support for Clean Energy Technologies. https://oced-exchange.energy.gov/Default.aspx#FoaId5f313e9b-4b18-4dd0-bd36-17b58e8d2417.

deployment and encouraging private investment. In at least one technology use case – carbon dioxide removal - Congress has explicitly tasked DOE with creating a pilot procurement program through the FY23 funding omnibus, signaling that there is bipartisan support for DOE to engage on demand-side support.

In scoping activities on demand-side support, DOE will need to establish goals for how to leverage private sector expertise while also leading by example through a government-backed definition of quality for products procured. Given that government-backed demand-side support tools do not have universal bipartisan backing, FESI's involvement in providing such tools could ensure long-term stability needed by the market while maintaining private sector-involvement that attracts bipartisan appeal. FESI could also integrate external expertise in new demand side efforts to assist with project selection or in executing due diligence on government contracts. The manner in which FESI is integrated in demand side activities will likely vary based on the technology specific and industry needs, but the potential to leverage FESI for demand-side assistance in the short term should not be overlooked.

Long-term

*FESI should offer non-dilutive investments in startups.*

While VC funding for climate tech startups has seen rapid growth in recent years, reaching around $70 billion in 2022,[2] this trend is unlikely to continue indefinitely. However, strong and sustained funding for climate tech startups will be necessary to deliver the energy solutions needed to address climate change. Given this context, FESI could play an important role in providing patient capital to startups without taking an ownership role, allowing startups the flexibility they need to make rapid and independent business and technology decisions while supporting the mission needs of the federal government.

To provide this service, FESI could contract with In-Q-Tel, which is an independent, non-profit strategic investor for the U.S. Intelligence Community (IC) that collaborates closely with federal agencies.[3] In-Q-Tel was established in 1999 and works with the companies it invests in to ensure that their technologies meet IC needs. IQT could deliver similar services for the energy sector and DOE, providing a connection to federal strategies for decarbonization, thereby ensuring public-private coordination in climate tech investments. This should include investments in startups at the pilot-scale demo stage in particular, which is a significant funding gap for climate tech in both public and private funding programs.[4]

*FESI should advance commercialization of the full breadth of technologies relevant to DOE's mission.*

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[2] *Defying gravity, 2022 Climate Tech VC funding totals $70.1B, up 89% on 2021*. HolonIQ. 3 January 2023. https://www.holoniq.com/notes/2022-climate-tech-vc-funding-totals-70-1b-up-89-from-37-0b-in-2021.

[3] *Agency-Related Nonprofit Research Foundations and Corporations.* Congressional Research Service. 2 June 2022. https://crsreports.congress.gov/product/pdf/R/R46109.

[4] I*nnovation at Scale: Supporting Pilot-Scale Demonstrations.* Bipartisan Policy Center. 6 March 2023. https://bipartisanpolicy.org/report/innovation-at-scale/.

DOE's mission space is broad and encompasses energy, national security, and science and technology challenges. Traditionally, the commercial investments at DOE have been focused on those areas that fall under the DOE applied energy offices. However, there is significant opportunity to commercialize technologies that fall under other parts of the DOE portfolio, including at the DOE Office of Science and National Nuclear Security Administration. This includes topic areas such as fusion energy, biotechnology, and microelectronics. FESI can assist in several ways to make the most of these DOE investments and drive greater commercial impact, including through partnerships with DOE national labs as well as convening relevant players in the private sector.