



April 18, 2023

U.S. Department of Energy  
Office of Technology Transitions

**RE: Response to 88 FR 9876: Request for Information—Foundation for Energy Security and Innovation (FESI)**

**Introduction**

The Clean Energy Business Network (CEBN) appreciates the opportunity to provide comments on potential objectives and activities for the Department of Energy's (DOE's) engagement with the Foundation for Energy Security and Innovation (FESI). CEBN is a nationwide nonprofit serving as the small business voice of the clean energy economy.

**How FESI can support DOE's mission and energy technology commercialization (Q1-3)**

Any aspects of DOE's mission could potentially benefit from FESI's involvement. Priority areas of focus should include accelerating the development and deployment of clean energy and emissions-reduction technologies and creating robust and lasting opportunities for just and equitable economic growth, wealth creation, and workforce development.

DOE and FESI should closely coordinate and inform their respective efforts but operate independently. FESI can establish more credibility and trust with stakeholders by operating outside the confines and history of the federal government. FESI should also not replicate existing functions within DOE. Rather, FESI should seek to bridge connections among distinct programs and fill gaps where they exist due to financial or procedural barriers. Compared to DOE, FESI can offer advantages in terms of greater flexibility in funding sources, disbursement models, and approaches.

**Engagement and alignment with stakeholders (Q4)**

FESI should serve as a conduit for efficient, effective, and inclusive engagement of stakeholders across the continuum of DOE mission areas. This includes promoting a bi-directional flow of information—informing and engaging stakeholders in the broad range of federally-supported energy programs and seeking their input on areas of need and best practices for managing these programs. It also includes bringing together government leaders and stakeholders across a broad range of entities—for-profit, non-profit, philanthropic, academic, state/local governments—who might otherwise not interact.

Being external to DOE, FESI can apply more flexible and creative strategies than the federal government, with the goal of streamlining the flow of information and lowering barriers to participation from external stakeholders. FESI should proactively convene or support workshops, technology demo days, events at universities and community organizations, and other outreach strategies to meet stakeholders where they are and engage them on their own terms.

More informal engagement strategies such as these are particularly critical in attempting to reach groups that are newer to federal policymaking and funding processes, such as small businesses, historically underrepresented groups or regions, and underresourced communities wishing to participate in the energy transition. These stakeholders may lack the capacity to participate in more formal opportunities for engagement, such as responding to Requests for Information (RFI) or Notice and Comment periods on proposed rulemakings.

Informal dialogues can also provide a safe space for federal energy program administrators and stakeholders to exchange ideas. Federal employees can offer direct insights and experience on the rationale and limitations in how their programs operate and can be internal advocates for improvement. However, their views may not always be included in official agency positions and may therefore never be shared with the public. Off-the-record brainstorming sessions can build trust and common ground and spur ideation on new approaches.

### **Specific areas where DOE should engage with FESI (Q5)**

*Establishing a long-term climate and clean energy strategy:* Due to the way funding is siloed by DOE program offices, many programs and funding opportunity announcements are divided across narrowly defined technologies. These can also be subject to the changing priorities of new Administrations and Congresses.

While intentional investments in specific technology challenges are of course necessary, exclusively relying on prescriptive topics leaves promising innovations on the table. Concepts that don't neatly fit neatly into these prescribed topic areas may not be eligible, even if they offer promise in reducing emissions or improving upon current technologies. Given the rapid evolution of technology innovation, FESI should establish clear long-term, technology-agnostic goals and provide sources of financing for proposals that meet these objectives.

*Providing innovative and flexible financing to support technology commercialization:* Financing remains one of the largest challenges to innovation and deployment of new energy technologies. Recent investments through the Bipartisan Infrastructure Law, Chips and Sciences Act, and Inflation Reduction Act are poised to unlock historic levels of federal funding and private-sector capital for the energy sector—but institutional barriers could impose limitations on how funds are deployed.

FESI should strive to be a testbed for innovation and flexibility in financing models and the rapid deployment of funds. This requires close coordination with DOE, other federal agencies, and stakeholders to identify and fill gaps in current funding sources—including financing for particular technology stages, project sizes, sectors, or types of financing.

One recommended area of focus would be in addressing the valley of death to commercialization and market adoption of new energy technologies that offer emissions reductions or other societal benefits. Following successful technology research and development, small businesses face barriers to scaling cleantech innovations. Programs such as the Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) bring technology to a point where

it is near-ready for commercialization, but then entrepreneurs often face a final valley of death in financing demonstration/proof of concept projects and/or iterative R&D with early customers. Unlocking private capital often hinges on de-risking the technology through pilot-scale demonstrations.

Since DOE is not a major procurement agency, it does not provide many mechanisms for internally piloting projects. Existing DOE programs providing capital for first-of-a-kind projects, such as the Loan Programs Office and Office of Clean Energy Demonstrations, are often inappropriate for small-scale demonstrations due to the size of the awards, complex and rigorous application process, and due diligence associated with this funding.

FESI should coordinate closely with the DOE's Office of Technology Transitions, Office of Clean Energy Demonstrations, and applied research programs to overcome the valley of death—both through improvements to DOE programs as well as standing up new programs. Solutions could include small-scale pilot projects (on the order of \$50 million or less) as well as matchmaking between innovators, potential early adopters (communities, private sector, and other federal agencies), and investors. See this [Bipartisan Policy Center white paper](#) and takeaways from a recent [CEBN small business roundtable](#) for further information.

Additionally, FESI should leverage public and private-sector funds to test out new financing models that fill gaps in both the technology push (i.e., development and deployment) as well as the market pull. Examples might include revolving loan funds for demonstration projects, federal procurement of new energy technologies, or standing up pilot manufacturing facilities. By investing in particularly novel and promising approaches, such funds could have an outsized impact, launching new technology into the market and leading to larger projects down the line.

Finally, FESI should build upon the model of the American-Made Challenges program to lower the barrier to entry for energy innovators. This program supports cash prize competitions to rapidly innovate and scale new technologies or community-based programs. Applications are short and straightforward. Funds are distributed rapidly—only a few months from the announcement of the competition to disbursement of funds. Funding is unrestricted and the reporting is straightforward. These attributes allow applicants to focus on their work rather than complex and burdensome processes, and make the prizes more accessible to new and underresourced applicants.

*Investing in regional manufacturing, testing, and fabrication facilities:* Energy innovation often requires iterative R&D and refinement to scale technologies from the lab bench to the first pilot, and then adapt them for new use cases. It can be difficult to find manufacturing and fabrication sites to produce and iterate materials on demand, as such flexible capabilities would require a high capital investment to produce items at a limited scale. Leveraging pooled public and private funds to invest in customizable, flexible manufacturing capabilities would accelerate innovation in energy and other technology sectors. Additionally, creating more distributed and flexible manufacturing capabilities would help with rapid response to supply chain disruptions, such as those experienced during the COVID-19 crisis.

*Engaging stakeholders to support a just and inclusive energy transition:* As already discussed, FESI can play an important role in supporting the bi-directional flow of information from the government to stakeholders and vice versa, and in convening parties that might not otherwise interact. As a start, FESI should seek to operate as a clearinghouse of information about what public and private sector resources already exist to support energy innovation and deployment.

One of the greatest barriers to a more inclusive innovation ecosystem is that many small businesses and underresourced communities lack awareness and application support on federal energy innovation programs and funding opportunities. Even where sources of support are available, innovators are often unaware of these resources (e.g., Federal and State Partnership Programs, Small Business Development Centers, the GAFC ecosystem, American-Made Network, local incubators, private sector partners). By identifying and tying together these resources, FESI can streamline stakeholder access to information. This exercise would also help FESI determine what programs already exist and what gaps remain, so that it can prioritize activities that add value to the overall energy innovation ecosystem.

Throughout its initiatives, FESI should seek to support stakeholder participation in the energy transition, broaden participation from historically underrepresented groups, and foster collaboration. In addition to the convening functions described earlier, one of the greatest needs is to simply build capacity in underresourced communities. FESI should seek to identify gaps in investment and technical support available to particular regions and demographics and make intentional multi-year grants to centers of innovation and economic development such as Historically Black Colleges or Universities, Tribal Colleges or Universities, and minority-serving institutions. Such assistance would help these organizations build out staff capacity, familiarity with and connections to the energy industry, and expertise on how to successfully engage in federal energy funding opportunities and policy programs.

*Promoting collaborative solutions on contemporary energy challenges:* Finally, FESI should leverage its independent status and convening power to promote collaborative solutions to major challenges facing the energy industry. One of the most pressing issues today is permitting and siting. It can take years or even decades to construct new energy projects, transmission lines, and manufacturing facilities needed to decarbonize the U.S. economy. These timelines must be accelerated to address climate change, but in doing so it is critical to engage affected stakeholders and avoid or mitigate any negative impacts on communities or the environment.

FESI's community engagement strategies should focus not only on strengthening opportunity and access to the emerging clean energy economy, but also informing program and project design. FESI should position itself as an independent, trusted third party to accelerate problem solving through stakeholder dialogues, sharing of best practices, and community planning grants.

### **Potential challenges to proactively manage (Q6)**

*Maintaining independence and nonpartisanship:* It is critical that FESI remain an objective, nonpartisan entity that stands the test of time—independent of the temporary political priorities of changing Administrations and Congresses. But remaining nonpartisan does not mean ignoring these political players and changes; rather, it means proactively inviting leaders and stakeholders

from across the political spectrum into the conversation and providing a safe space for exchanging and vetting ideas. Given the politically complex nature of most energy issues, FESI can only achieve nonpartisanship through bipartisanship. For examples of how to build itself as a trusted, independent entity, FESI can look to nonprofit organizations, the National Academy of Sciences, the Congressional Research Service, State Energy Offices, and existing federally-tied foundations.

*Building and maintaining trust:* Building trust on potentially divisive issues, such as siting and permitting, can be particularly delicate. FESI must be especially careful to balance diverse perspectives and avoid perceived conflicts of interest. For example, private industry may be particularly likely to financially contribute to FESI programs that are intended to accelerate siting and permitting. These companies must be convinced to invest in these initiatives even when some outcomes are not favorable to accelerating their projects. Meanwhile, stakeholders such as environmental justice communities, tribes, and environmental organizations must find assurances that their interests will continue to be protected in any proposed models to expedite the review process. Also, to the extent that these organizations are beneficiaries of funding to support community engagement around siting and permitting issues, it is important to avoid perceived conflicts of interest.

To build trust on both sides, it will be important to ensure checks and balances to create a firewall between FESI's policy guidance or initiatives and its financial transactions. It will also be critical to reinforce that FESI will not be a permitting agency, but rather a broker of information and ideas bringing together stakeholders to accelerate planning within the confines of current law and to develop guidance for future policy decisions by DOE and Congress.

*Ensuring good governance:* The initial FESI Board will set the tone for the future of the organization. Building an inclusive board representing a range of demographics, geographies, political ideologies, areas of expertise, and market interests will ensure that FESI hears from diverse perspectives in shaping its initial mission and programs. While representation is important, it also creates its own set of challenges—many of the same entities whose voices are needed on the board may also be potential beneficiaries of FESI funding. Therefore, it is important to establish clear and fair protocols for maintaining objectivity and addressing potential conflicts of interest. Examples of how to address these challenges can be found on the boards of nonprofit organizations and trade associations.

Thank you in advance for your consideration of these recommendations. CEBN looks forward to continuing to collaborate with DOE and FESI on these issues.

Sincerely,



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President