

## Resources for Inclusive Innovation and Entrepreneurship at the U.S. Department of Energy

Below are three tables of resources for additional reading to support discussions on how to improve participation and inclusion in DOE funding opportunities. The first table describes a series of DOE Resources, the second describes Program-Specific Resources at DOE, and the third provides Perspectives on Inclusive Innovation Ecosystems. These resources are intended to outline the opportunities for innovation and entrepreneurship at DOE and initiate ways to think about how improvements can be made to create a more inclusive and just entrepreneurial innovation ecosystem in climate and energy technologies. Each resource is briefly described below alongside a link at which the resource can be accessed.

DOE Resources		
<i>Title</i>	<i>Description</i>	<i>Link</i>
Appendix 1: Glossary of Terms, Systems and Acronyms from the Office of Indian Energy. A component of the Recipient Guide to Award Negotiation and Administration from the Office of Indian Energy	Provides definitions of the language contained in the DOE and the Office of Indian Energy award process from pre-award through the closeout process.	<a href="https://www.energy.gov/sites/prod/files/2020/06/f76/appendix-1-glossary.pdf">https://www.energy.gov/sites/prod/files/2020/06/f76/appendix-1-glossary.pdf</a>
Entrepreneurs – Office of Technology Transitions	Describes seven relevant resources for Entrepreneurs: Advanced Research Projects Agency-Energy (ARPA-E), Lab-Embedded Entrepreneurship Programs (LEEPs), Program Offices, Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR), Technology Commercialization Fund (TCF), Lab Partnering Service (LPS), and Gateway for Accelerated Innovation in Nuclear (GAIN).	<a href="https://www.energy.gov/technologytransitions/partners/entrepreneurs">https://www.energy.gov/technologytransitions/partners/entrepreneurs</a>
Equity in Energy Booklet	Describes the seven pillars of Equity in Energy initiative: Technical Assistance, Supplier Diversity, Workforce Development, Energy Affordability, National Laboratories, Energy Innovation & Alternative Fuels, and STEM Enhancement.	<a href="https://www.energy.gov/diversity/equity-energytm">https://www.energy.gov/diversity/equity-energytm</a>
Funding & Financing for Energy Businesses	Describes funding resources specific to energy businesses both within the energy department but also government-wide.	<a href="https://www.energy.gov/funding-financing-energy-businesses">https://www.energy.gov/funding-financing-energy-businesses</a>

<b>DOE Resources Cont.</b>		
<i>Title</i>	<i>Description</i>	<i>Link</i>
Guide to Partnering with DOE's National Laboratory	Describes eight partnering mechanisms for collaboration with DOE's National Laboratories: Cooperative Research and Development Agreement (CRADA), Strategic Partnership Project (SPP), Agreements for Commercializing Technology (ACT), Technical Assistance (TA) Agreement, User Agreement, Technology Licensing Agreement, Material Transfer Agreement (MTA), and Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR).	<a href="https://www.inl.gov/wp-content/uploads/2016/05/Revised-Guide-Partnering-with-National-Labs-Final.pdf">https://www.inl.gov/wp-content/uploads/2016/05/Revised-Guide-Partnering-with-National-Labs-Final.pdf</a>
Incubators and Accelerators – Buildings	Describes additional resources (organizations or programs) related to the U.S. Department of Energy's (DOE) Office of Energy Efficiency and Renewable Energy (EERE) Building Technology Office (BTO).	<a href="https://www.energy.gov/eere/buildings/incubators-and-accelerators">https://www.energy.gov/eere/buildings/incubators-and-accelerators</a>
Recipient Guide to Award Negotiation and Administration from the Office of Indian Energy	Provides resources to help award recipients navigate DOE and the Office of Indian Energy award process from pre-award through the closeout process. Comprised of the Guide and ten appendices that include a glossary of common DOE terms and acronyms (the first resource in this table), along with step-by-step instructions with screenshots to help grant Recipients navigate the DOE grant systems.	<a href="https://www.energy.gov/indianenergy/download/recipient-guide-award-negotiation-and-administration-appendices">https://www.energy.gov/indianenergy/download/recipient-guide-award-negotiation-and-administration-appendices</a>
Technology Transfer Mechanisms at DOE Facilities	Describes four technology transfer mechanisms at DOE Facilities: Cooperative Research and Development Agreement (CRADA), Work for Others (WFO), Agreements for Commercializing Technology (ACT), and User Facility Agreements (UFAs).	<a href="https://www.ornl.gov/sites/default/files/MechanismsMatrix.pdf">https://www.ornl.gov/sites/default/files/MechanismsMatrix.pdf</a>

Program-Specific Resources		
<i>Title</i>	<i>Description</i>	<i>Link</i>
American-Made Challenges	This is a series of prize competitions that are designed to incentivize the nation's entrepreneurs to reenergize innovation and reassert American leadership in the energy marketplace. Challenges aim to spur manufacturing, develop innovative solutions and products, and create new domestic jobs and opportunities through public-private partnerships.	<a href="https://americanmadechallenges.org/">https://americanmadechallenges.org/</a>
Energy I-Corps	Pairs teams of national laboratory researchers with industry mentors for an intensive two-month training. With a focus on value commercialization and entrepreneurial activities, the program aims to increase the number of national laboratory-developed technologies that are transferred into commercial development or industry agreements.	<a href="https://energyicorps.energy.gov/">https://energyicorps.energy.gov/</a>
Incubator Program – Solar Energy Technologies Office (SETO)	Provides early-stage assistance to help startup companies cross technological barriers to commercialization while encouraging private sector investment.	<a href="https://www.energy.gov/eere/solar/incubator-program">https://www.energy.gov/eere/solar/incubator-program</a>
Lab Partnering Service (LPS)	Provides a single location to connect with leading DOE national laboratory technical experts to quickly answer innovation questions, as well as discover opportunities for building partnerships. The goal of LPS is to increase access to the information needed to make informed decisions.	<a href="https://www.labpartnering.org/">https://www.labpartnering.org/</a>
Loan Programs Office (LPO)	Provides debt financing for the commercial deployment of large-scale energy projects with flexible financing and valuable expertise.	<a href="https://www.energy.gov/lpo/loan-programs-office">https://www.energy.gov/lpo/loan-programs-office</a>
National Incubator Initiative for Clean Energy (NIICE)	Maintains a network to increase coordination and collaboration among the incubators across the country and develop best practices to raise incubator performance standards thereby enabling incubators to provide more efficient and effective services. Led to the development of a network of more than 1,000 early-stage companies: The Incubator Network.	<a href="https://www.energy.gov/eere/technology-to-market/national-incubator-initiative-clean-energy-niice-0">https://www.energy.gov/eere/technology-to-market/national-incubator-initiative-clean-energy-niice-0</a>
Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program	Awards grants to competitively selected small businesses for the research and development and commercialization of new ideas and innovative research. The mission is to promote technological innovation and economic growth through the investment of Federal research funds in small US businesses.	<a href="https://www.energy.gov/science/sbir/small-business-innovation-research-and-small-business-technology-transfer">https://www.energy.gov/science/sbir/small-business-innovation-research-and-small-business-technology-transfer</a>
Small Business Vouchers (SBV) – Technology-to-Market	The program fosters collaboration between national labs and small businesses. It opens the national labs to qualified clean energy small businesses by making the contracting process simple, lab practices transparent, and access to the labs' unique facilities affordable. Implemented under the Office of Energy Efficiency & Renewable Energy (EERE). See the webpage for critical technology challenge focus areas.	<a href="https://www.energy.gov/eere/technology-to-market/small-business-vouchers">https://www.energy.gov/eere/technology-to-market/small-business-vouchers</a>

Program-Specific Resources Cont.		
Technology Commercialization Fund (TCF)	A funding opportunity that leverages the R&D funding in the applied energy programs to mature promising energy technologies with the potential for high impact. The goals are 1) to increase the number of energy technologies developed at DOE's national labs that graduate to commercial development and achieve commercial impact and 2) enhance the Department's technology transitions system with a forward-looking and competitive approach to lab-industry partnerships..	<a href="https://www.energy.gov/technologytransitions/initiatives/technology-commercialization-fund">https://www.energy.gov/technologytransitions/initiatives/technology-commercialization-fund</a>

Perspectives on Inclusive Innovation and Entrepreneurship		
<i>Title</i>	<i>Description</i>	<i>Link</i>
Breaking Down Barriers: How the Department of Energy Can Immediately Advance Racial and Gender Equity for Entrepreneurs, Nicholas Montoni and Doug Rand	A discussion of actions for the Department of Energy (DOE) to take in support of inclusive clean energy startups and make progress on three of the Biden Administration's highest priorities: economic recovery, tackling the climate emergency, and racial equity.	<a href="https://www.thirdway.org/memo/breaking-down-barriers-how-the-department-of-energy-can-immediately-advance-racial-and-gender-equity-for-entrepreneurs">https://www.thirdway.org/memo/breaking-down-barriers-how-the-department-of-energy-can-immediately-advance-racial-and-gender-equity-for-entrepreneurs</a>
Creating Inclusive High-Tech Incubators and Accelerators: Strategies to Increase Participation Rates of Women and Minority Entrepreneurs	A report from JP Morgan Chase & Co. and Initiative for a Competitive Inner City describing strategies to increase participation rates of women and minority entrepreneurs in business incubators and accelerators.	<a href="https://icic.org/wp-content/uploads/2016/04/ICIC_JPMC_Incubators_updated_post.pdf?x96880">https://icic.org/wp-content/uploads/2016/04/ICIC_JPMC_Incubators_updated_post.pdf?x96880</a>
Policies to Broaden Participation in the Innovation Process, Lisa Cook	A policy paper that explores approaches to reduce disparities in the innovation process, focusing on women and underrepresented minorities. Specific policies are proposed to improve data collection and measurement of innovation, particularly at the U.S. Patent and Trademark Office (USPTO), improve the inclusivity of commercialization using the Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs, and direct efforts to foster an inclusive workplace climate in the innovation economy.	<a href="https://www.brookings.edu/wp-content/uploads/2020/08/Cook_PP_LO_8.13.pdf">https://www.brookings.edu/wp-content/uploads/2020/08/Cook_PP_LO_8.13.pdf</a>
Women's Inclusion in Small Business Innovation Research (SBIR) & Small Business Technology Transfer Programs (STTR), America's Seed Fund	A report providing the results of a study on women's participation in SBIR/STTR-funded small businesses with a focus on women business owners and principal investigators. It also analyzes potential factors that may influence women's participation.	<a href="https://www.nwbc.gov/2020/08/12/womens-inclusion-in-small-business-innovation-research-small-business-technology-transfer-programs/">https://www.nwbc.gov/2020/08/12/womens-inclusion-in-small-business-innovation-research-small-business-technology-transfer-programs/</a>