U.S. Federal Funding Opportunities

May 22, 2023 Update

| Grants | Loan Guarantees | | Current Solicitations with Upcoming Deadlines | | Ongoing, Standing Programs | | Small Business Innovation Research (SBIR) Grants |

> U.S. Department of Agriculture U.S. Department of Commerce U.S. Department of Energy U.S. Department of Defense U.S. Department of Interior U.S. Department of Interior U.S. Department of Transportation U.S. Environmental Protection Agency National Science Foundation America's Seed Fund

Prepared by <u>American Diversified Enterprises</u> | Grant Applications | 3rd Party Studies | Due Diligence | Financing |

American Diversified Enterprise

| Grant Applications | 3rd Party Studies | Due Diligence | Financing | Media | Agriculture | Environment | | Transportation | Strategic Collaborations |

Working Toward a More Sustainable Future

U.S. Federal Funding Opportunities

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TOP 10 ENERGY CONSULTING PROVIDERS 2023



erican

As a result of the Inflation Reduction Act, more than \$350 billion in funding and another \$400 billion in loan authority is now available from U.S. federal agencies, which is a four-fold increase over prior years in federal funding for programs that support innovation, the development of new technologies, and the bioeconomy and a 10-fold increase in loan authority to commercialize innovations and technologies.

Opportunity #	Opportunity Title (Please click the links for more information on each opportunity)	Pre-Application / Concept Due	Application Due Date	
U.S. DEPARTMENT OF ENERGY (DOE)				

The U.S. Department of Energy (DOE) offers grants and loan guarantees to foster energy innovations - from research & development, up through technology testing, validation, piloting, scale-up, and commercialization. The funding available through DOE's already expansive grant programs has been increased nearly four-fold and the loan authority for its Innovative Technologies Loan Guarantee program, which provides construction financing for the commercialization first-of-their-kind technologies, was increased ten-fold by the Infrastructure Reduction Act.

Current DOE Grant Opportunities

Office of Energy Efficiency and Renewable Energy (EERE)				
DE-FOA-0002893	FY23 Vehicle Technologies Office ProgramWide Funding Opportunity Announcement. The research and development (R&D) activities to be funded under this FOA will support the government-wide approach to the climate crisis by driving the innovation that can lead to the deployment of clean energy technologies, which are critical for climate protection. Specifically, this FOA is seeking innovative solutions for on-road and off-road vehicles to develop and accelerate the charging	6/26/2023	8/11/2023	



Opportunity #	Opportunity Title Proportunity # (Please click the links for more information on each opportunity) Proportunity		Application Due Date
	infrastructure and drastically-reduced GHG emissions in support of Administration goals.		
Office of Clea	n Energy Demonstrations (OCED)		
DE-FOA-0003045	Bipartisan Infrastructure Law: Energy Improvement in Rural or Remote Areas (ERA) Fixed Award Grant Program. his FOA provides \$50 million in Federal funding and is designed to support small community-driven clean energy projects requiring \$500,000 to \$5 million in Federal funding.	7/13/2023	10/12/2023

Upcoming DOE Grant Opportunities

National Energy Technology Laboratory

DE-FOA-0003035	Notice of Intent to Issue a Funding Opportunity Announcement No.: DE-FOA- 0003036 "Energy Storage Demonstration and Validation." This will be a competitive pilot demonstration grant program, as authorized in section 3201 of the Energy Act of 2020, for energy storage projects that are U.S-controlled, U.S. made, and North American sourced and supplied. The program will include (but not be limited to) large scale commercial development and deployment of long cycle life, lithium-grid scale batteries and their components.	N/A	N/A
	Notice of Intent to Issue a Funding	yy (EERE)	
DE-FOA-0002587	Opportunity Announcement No.: DE-FOA- 0002588 "Regional Clean Hydrogen Analysis." EERE intends to issue, on behalf of the Hydrogen and Fuel Cell Technologies Office (HFTO), solicit analysis projects to identify and characterize the value proposition of specific regional clean hydrogen deployments that could be successfully implemented over the coming years. Each analysis project solicited in this FOA would be focused on a single potential clean hydrogen deployment that includes production, delivery, storage, and end use, in a specific region (State or several adjacent States) within the United States. Each proposal would study potential hydrogen producers, hydrogen consumers, and the necessary connective hydrogen	N/A	N/A



Opportunity #	Opportunity Title (Please click the links for more information on each opportunity)	Pre-Application / Concept Due	Application Due Date
	infrastructure, all located in close proximity, to enable deployment with substantial engagement of local and regional stakeholders. The selected projects will quantify key metrics including decarbonization potential, system cost, revenue potential, and metrics for environmental justice, such as potential for regional economic growth, job creation, reduction in criteria pollutant emissions, and creation of educational and workforce development opportunities.		

Ongoing DOE Funding Opportunities & Standing Programs

Advanced Vehicle Technologies Manufacturing (ATVM) Loan Program

The <u>ATVM loan program</u> has \$17.1 billion in loan authority to support the manufacture of light-duty vehicles and vehicle components using advanced technologies. This is the program that gave Tesla its start and financed the Nissan Leaf and the development and manufacture of Ford's EcoBoost engines which are now in all of its vehicles. Recently, Lordstown Motors has been progressing through the ATVM loan process. Loans are financed through the Federal Financing Bank (FFB), whose interest rate is tied to 20-year Treasuries (currently 2.39%). Applications are accepted on a rolling basis. No specific due dates.

Title 17 Innovative Technologies Loan Guarantee Program

The <u>Title 17 loan guarantee program</u> provides long-term loan-interest loan guarantee obligations, also through the FFB. Since it is a loan guarantee program, it also can be used to de-risk loans from private sector lenders, but interest rates in this case can be two to three times higher.

- Of the loan program solicitations that are available, the <u>Renewable Energy and Energy Efficiency</u> (REEE) program, with \$4.5 billion in loan authority, has recently been expanded to include electric vehicle charging infrastructure.
- This is a program which was designed specifically to provide a "bridge over the valley of death" for the first commercial deployment of new, promising technologies that virtually no private sector lender would finance due to the high degree of risk in first-time projects.
- I have had a significant amount of involvement from its inception in 2005, beginning with preparing one of the few
 applications accepted (16 out of more than 300) for its first solicitation in 2007, saving it from elimination in the
 2018 federal program funding legislation moving through Congress, and writing language last year, which became
 law this year, to fix multiple problems with the program that had become obstacles for moving applications through
 the process and deploying projects on the ground.
- Applications are accepted on a rolling basis; there are no specific due dates.

Advanced Research Projects Agency – Energy (ARPA-E)

<u>ARPA-E</u> funds research for transformative technologies and energy systems through multiple Funding Opportunity Announcements (FOAs) each year. These grants are directed primarily at the early Technology Readiness Levels. There are times, however, when ARPA-E can support the expansion, greater efficiency, or deployment for more advanced technologies.

Most of the FOAs focus on specific topics that ARPA-E wishes to advance, although the agency issues FOAs and Requests for Information (RFIs) on occasion that cover broad categories or invite input on upcoming grant opportunities that ARPA-E should consider.

No ARPA-E grant opportunities are yet available for the end of the 3rd quarter or 4th quarter of 2023, or 1st quarter of 2024. To stay abreast of current ARPA-E grant opportunities, visit the <u>ARPA-E Funding Announcement page</u>.



Opportunity	#

Opportunity Title (Please click the links for more information on each opportunity) Pre-Application / Ap Concept Due

Application Due Date

U.S. DEPARTMENT OF AGRICULTURE (USDA)

The U.S. Department of Agriculture (USDA) has over 180 standing grant, loan, and loan guarantee programs. Its grants, loans, and loan guarantees – with sole exception of the USDA Section 9003 loan guarantee program for first-of-a-kind renewable energy, renewable chemical, and biobased manufacturing projects – are restricted to projects that are located in or benefit rural and exurban areas (with populations of 50,000 or less).

Current USDA Grant Opportunities

National Instit	ute for Food & Agriculture (NIFA)		
USDA-NIFA-AFRI- 009802	Agriculture and Food Research Initiative Sustainable Agriculture and Food Research. There is an increasing need to foster holistic and systems approaches to mitigate the climate crisis; improve agricultural productivity; ensure a safe, affordable, and nutritious supply of food; invigorate and realize the promise of the bioeconomy; and promote the development of a skilled agricultural workforce. Applications must focus on systems approaches that significantly improve the local and regional supply of climate-smart, sustainable, safe, nutritious, and accessible food and other agricultural products while fostering economic revitalization in America. These creative and visionary approaches must address current needs of resilient and robust food systems and anticipate future social, cultural, behavioral, economic, health, and environmental impacts. \$80 million is available for grants up to \$10 million each.	N/A	7/13/2023
Renewable En	ergy for America Program (REAP)	Grants	
RDBCP-REAP-RES- EEI-2023-2024	The Inflation Reduction Act provides \$1.055 billion in REAP funds across six quarterly cycles to be obligated by September 30, 2024. Grants of up to \$500,000 for energy efficiency projects and \$500,000 to \$1 million for renewable energy systems are available on a 50/50 matching basis. See description of the REAP program under Ongoing USDA Funding Opportunities & Standing Programs below.	N/A	Applications are accepted on a rolling basis and may be submitted at any time prior to each of the six deadlines – 6/30, 9/30, and 12/31/2023, and 3/31/30, 6/30 and 9/30/2024

Ongoing USDA Funding Opportunities & Standing Programs

USDA Rural Development

USDA Rural Development (USDA-RD) operates over 50 financial assistance programs for a variety of rural applications. These programs are grouped into the following categories:



Opportunity #	(Please click the	ortunity Title links for more information on ch opportunity)		lication / pt Due	Application Due Date
USDA Energy Programs USDA Cooperative Programs		<u>grams</u>	• <u>Telecom</u>	munications Programs	
 USDA Business P 	rograms	grams • <u>Community Facilities Programs</u>		• <u>Multi-Fa</u>	mily Housing Programs
USDA Electric Pro	ograms	Water & Environmental Programs		• Single-F	amily Housing Programs

Within these categories, USDA-RD operates three loan guarantee programs that support rural development, sustainability, the bioeconomy, and innovation:

Business & Industry (B&I) Loan Guarantees

The USDA B&I Loan Guarantee Program provides loan guarantees of up to \$25 million. B&I loans are restricted to projects and businesses in rural areas that have been in commercial operation for at least 12 months and 1 day, which will be using commercially available, commercially proven equipment and building materials in construction projects.

B&I loans are available for:

- Business conversion, enlargement, repair, modernization or development
- Purchase and development of land, easements, rights-of-way, buildings, or facilities
- Purchase of equipment, leasehold improvements, machinery, supplies, or inventory
- Debt refinancing when refinancing improves cash flow and creates or saves jobs
- Business and industrial acquisitions when the loan will create or save jobs

Renewable Energy for America Program (REAP) Grants and Loan Guarantees

The Renewable Energy for America Program (REAP) provides loan guarantees on loans of up to \$25 million and grants of up to \$500,000 for energy efficiency systems and of \$500,000 to \$1 million for renewable energy systems.

Loan guarantees are available up to 75 percent of total eligible project costs and grants for up to 25 percent of total eligible project costs. Grants and loan guarantees can be combined for up to 75 percent of total eligible project costs. USDA's REAP and B&I programs also can be combined for total funding of \$50 million toward total project costs.

The focus of the program is on agricultural producers with at least 50 percent of their gross income coming from agricultural operations and small businesses in rural areas. However, a small business that intends to install renewable energy systems or energy efficiency materials or equipment may apply, providing that the facilities and systems that are built and installed are located in rural areas and benefit predominantly rural residents.

Funds may be used for renewable energy systems, such as:

- Biomass (for example: biodiesel and ethanol, anaerobic digesters, and solid fuels)
- · Geothermal for electric generation or direct use
- Hydropower below 30 megawatts
- Hydrogen.
- Small and large wind generation
- Small and large solar generation
- Ocean (tidal, current, thermal) generation

Funds may also be used for the purchase, installation and construction of energy efficiency improvements, such as: • High efficiency heating, ventilation and air conditioning systems (HVAC)

- Insulation
- Lighting
- Cooling or refrigeration units
- Doors and windows
- Electric, solar or gravity pumps for sprinkler pivots

Agricultural producers may also use guaranteed loan funds to install energy efficient equipment and systems for agricultural production or processing.

Section 9003 Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Loan Guarantees

Applications are accepted on a rolling basis and may be submitted anytime to a USDA state office



Opportunity #	pportunity # Opportunity Title (Please click the links for more information on each opportunity) Pre-Application / Concept Due		Application Due Date
<u>USDA's Section 9003 Loan Guarantee program</u> provides loan guarantees up to \$250 million to assist in the development, construction, and retrofitting of new and emerging technologies for <u>advanced biofuels</u> , <u>renewable chemicals</u> and <u>biobased</u> products.		Letters of Intent (LOIs) are due on March 1 and September 1 of each year	Full Part I applications, including independent feasibility studies, are due on April 1 and October 1 each year
National Instit	ute for Food & Agriculture (NIFA)		

USDA's National Institute of Food and Agriculture (NIFA) provides funding for programs that advance agricultural-related science to address the agricultural issues impacting people's daily lives and the nation's future.

The key objectives of NIFA are to:

- Advance the competitiveness of American agriculture
- Bolster the U.S. economy
- Enhance the safety of the nation's food supply
- Improve the nutrition and well-being of American citizens
- Sustain natural resources and the environment
- Build energy independence

NIFA awards grants for multiple topics under 50 different programs. The vast majority are research grants that solicit applications from universities and research institutions or require that the principal investigator be associated with a university, research institution, or be carried out in collaboration with a USD extension office or experiment station.

Current NIFA grant opportunities can be viewed on NIFA's Grants and Funding Opportunities page.

U.S. DEPARTMENT OF TRANSPORTATION (DOT)

The U.S. Department of Transportation (DOT) has made a commitment to pursue opportunities for the national transportation system that will promote energy and natural resource conservation, decrease emissions of greenhouse gases (GHGs), reduce dependence on fossil fuels, and increase energy efficiency.

DOT's funding has been expanded by the Bipartisan Infrastructure Law and Inflation Reduction Act, with the Bipartisan Infrastructure Law providing more than \$500 billion to support over 100 initiatives and programs over the next five years. A list of these programs can be viewed on <u>DOT's Bipartisan Infrastructure Law Grant Programs</u> page.

Current DOT Grant Opportunities

Federal Highway Administration			
693JJ323NF00011	Fiscal Years 2022-2023 Wildlife Crossings Pilot Program (WCPP). The purpose of the WCPP is to save lives, prevent serious injuries and protect motorists and wildlife by reducing WVCs, and improve habitat connectivity for terrestrial and aquatic species. Reduction of wildlife vehicle collisions and improvement of terrestrial and aquatic habitat connectivity are the primary goals of the solicitation. Eligible applicants are state DOTs, units of local governments, regional transportation authorities, and Indian Tribes. Private companies cooperating with one of these entities can participate as co- applicants.	8/01/2023	
Office of the U	nder Secretary for Policy		
693JJ323NF00013	Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Program. The purpose of this program is to plan for and strengthen surface transportation to be more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events, and other natural disasters through formula and competitive discretionary grants. It will fund projects that address the climate crisis by improving the resilience of the surface transportation	8/18/2023	



Opportunity #	Opportunity Title (Please click the links for more information on each opportunity)	Pre-Application / Concept Due	Application Due Date
_	system, including highways, public trans intercity passenger rail. State Governments Federally Recognized Tribes and Affiliated Project Organizations. Again, private comp one of these entities can participate as co-a	s; Local Governments; Groups; Planning and anies cooperating with	
Federal Aviatio	on Administration		
20-01	FAA Aviation Research Grants Program. The FAA has a continuing interest in receiving applications for aviation research grants. The research grants program encourages and supports innovative, advanced research to enhance technology assimilation, transfer, and development of potential benefit to civil aviation and commercial space transportation. Colleges, universities, and other non-profit research institutions are eligible to apply. Private companies and their engineers, mathematicians, psychologists, physicians, educators may initiate and participate in research proposals that are submitted by eligible organizations.		9/07/2027

Upcoming DOT Funding Opportunities

Federal Aviation	Federal Aviation Administration	
N/A	Fueling Aviation's Sustainable Transition through Sustainable Aviation Fuels (FAST-SAF) and Technology (FAST-Tech) Programs	Pending – Solicitation anticipated Early Summer 2023
Federal Highway Administration		
N/A	Bridge Investment Program	Pending – Solicitation anticipated Summer 2023
Office of the Secretary		
N/A	Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program	Pending – Solicitation anticipated Summer 2023

Ongoing DOT Funding Opportunities & Standing Programs

Office of the Secretary	Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program	View link to the left
Office of the Under Secretary for Policy	Rural Opportunities to Use Transportation for Economic Success (ROUTES)	View link to the left
Build America Bureau	Build America Bureau for Innovative Project Financing	View link to the left
Federal Aviation Administration	Airport Improvement Program (AIP) Grants	View link to the left
Federal Railroad Administration	Federal Railroad Administration (FRA) Grants and Loans	View link to the left
Federal Transit Administration	Federal Transit Administration (FTA) Grant Programs	View link to the left



Opportunity #	Opportunity Title (Please click the links for more information on each opportunity)	Pre-Application / Concept Due	Application Due Date
Maritime Administration	Port Infrastructure Development Program		View link to the left
Pipeline and Hazardous Materials Safety Administration	Hazardous Materials Grants Program		View link to the left
Pipeline and Hazardous Materials Safety Administration	Pipeline Safety and Damage Prevention Grants		View link to the left
DOT	Multimodal Project Discretionary Grant Opportunity		View link to the left
DOT	Reconnecting Communities Pilot Program		View link to the left
DOT	Automated Driving System Demonstration C	Grants	View link to the left
DOT	Rebuilding American Infrastructure with Sustainability and Equity (RAISE) Grants		View link to the left
DOT	University Transportation Centers		View link to the left

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

The U.S. Environmental Protection Agency (EPA) is a vast resource of information on almost everything that affects the environment. It also is a valuable tool for pursuing grants and financing for renewable energy and energy efficiency projects, for finding data to cite in applications for other agencies and make comparisons with conventional technologies.

Current EPA Grant Opportunities

	<u>EPA Region 3 Solid Waste Infrastructure Grant.</u> Region 3 encompasses Delaware, Maryland, Pennsylvania, Virginia, West Virginia, Washington, D.C., and seven Tribal Nations.	
EPA-R3-LCRD-23- 09	The EPA is soliciting applications that will facilitate the creation of new capacity for, optimize existing capacity of, or identify strategies that: (1) Result in an increase in sustainable management of post- consumer materials; and (2) Reduce the amount of recyclable materials disposed of in landfills or incinerators. <u>You may download</u> the full announcement here.	7/14/2023
EPA-OAR-OTAQ- 23-06	2023 Clean School Bus (CSB) Grant Program. EPA's Office of Transportation and Air Quality is making \$400 million grant funding available incentivize and accelerate the replacement of existing school buses with clean and Zero Emissions (ZE) school buses. Eligible activities include the replacement of existing internal- combustion engine (ICE) school buses with electric, propane, or compressed natural gas (CNG) school buses, as well as the purchase of electric vehicle supply equipment (EVSE) infrastructure and EVSE installations. Applications will be accepted from state and local government entities that provide bus service, including public school districts, eligible contractors, Indian Tribes, and Tribal organizations.	8/22/2023



Opportunity Title (Please click the links for more information on each opportunity)

Ongoing EPA Funding Opportunities & Standing Programs

The EPA has 14 ongoing grant program categories which provide grants for:

- <u>Multipurpose grants to States and Tribes</u>
- <u>Research fellowships and scholarships</u>
- Competitive grant funding announcements for projects related to air quality, transportation, climate change, indoor air, and related topics
- Brownfields grants and funding
- Environmental education grants
- An environmental information exchange network grant program
- Environmental justice
- Great Lakes funding
- National Clean Diesel Campaign grants and funding
- EPA's People, Prosperity, and the Planet grant program for college students
- Pollution prevention
- Research funding
- Office of Land and Emergency Management (OLEM) grants and funding

Visit the links above

Visit the links above

U.S. DEPARTMENT OF COMMERCE (DOC)

U.S. Department of Commerce (DOC) grants and program support is directed most often toward municipalities, universities, and research institutions to carry out DOC bureau and office missions. Nevertheless, grants are available for a variety of activities through standing programs and solicitations through which private companies can suggest projects and participate with municipalities in securing funding that provides the opportunity for a company to locate facilities in a community and benefit the community by bringing jobs, contributing to local tax revenues, and stimulating economic development.

Ongoing DOC Funding Opportunities & Standing Programs

Economic Development Agency (EDA)

The <u>EDA provides multiple funding opportunities</u> to assist communities nationwide in expanding economic recovery and development, creating jobs, providing technical assistance, increasing private investment, advancing innovation, enhancing the manufacturing capacities of regions, and repairing and building the necessary infrastructure to support economic development revival and expansion.

One of the EDA's funding programs that addresses infrastructure needs is:

Fiscal Year 2023 Public Works and Economic Adjustment Assistance (PWEAA) Program

U.S. DEPARTMENT OF THE INTERIOR (DOI)

The U.S. Department of the Interior (DOI) manages America's vast natural and cultural resources through its nine bureaus and offices, each of which provide grants to advance their missions.

Ongoing DOI Funding Opportunities & Standing Programs

	Bureau of Indian Affairs (BIA) Energy & Mineral Development Grants	
Bureau of Indian	BIA Climate Change/Tribal Resilience Program	Varies – click on link to
Affairs (BIA)	 <u>BIA Tribal Energy Development Capacity Grants</u> 	view website
	 BIA Renewable Energy Opportunities – Resources 	
	BIA Loan Guarantees, Insurance & Interest Subsidies	



Opportunity #	Opportunity Title (Please click the links for more information on each opportunity)	Pre-Application / Concept Due	Application Due Date
Bureau of Land Management (BLM	Bureau of Land Management (BLM) Financi Grants	ial Assistance &	Varies – click on link to view website
Bureau of Ocean Energy Management (BOEM)	Bureau of Ocean Energy Management (BOEM) Renewable Energy Program		Varies – click on link to view website
Bureau of Reclamation (BOR)	Bureau of Reclamation (BOR) WaterSMART & Energy Efficiency Grants		Varies – click on link to view website
National Parks Service (NPS)	National Park Service (NPS) Grants for Cultural Resources, Consultation, and Repatriation		Varies – click on link to view website
U.S. Fish & Wildlife Service (FWS)	U.S. Fish & Wildlife Service (FWS) Financial Assistance		Varies – click on link to view website
U.S. Geological Survey (USGS)	U.S. Geological Survey (USGS) Financial Assistance Programs		Varies – click on link to view website

NATIONAL SCIENCE FOUNDATON (NSF)

The National Science Foundation (NSF) provides financial support in a wide range of scientific areas, from astronomy to zoology. In addition to funding research in the traditional academic areas, the agency also supports "high risk, high pay off" ideas, novel collaborations and projects that may seem like science fiction today but may be commonplace tomorrow. Its grants are targeted to TRL levels 1-3.

With an annual budget of \$11.5 billion, NSF makes more than 12,000 new grant awards each year, providing support for all fields of fundamental science and engineering, including energy innovation and energy efficiency (information on which can be found in the Engineering Research Area).

Current NSF Grant Opportunities

There are several ways to find relevant NSF grant opportunities. The first step is to go to the <u>NSF website's home</u> <u>page</u>, then **click on "Find Funding & Apply."** You also can use the drop-down menus on the NSF's <u>Funding</u> <u>Search</u> page to search by keywords, topic areas, and award types.

Two sample current grant opportunities are:

PD-23-1406	Thermal Transport Processes The Thermal Transport Processes program is part of the Transport Phenomena cluster, which also includes: 1) the Combustion and Fire Systems program; 2) the Fluid Dynamics program; and 3) the Particulate and Multiphase Processes program.	Proposals Accepted Anytime
PD-23-7644	<u>Electrochemical Systems</u> The Electrochemical Systems program is part of the Chemical Process Systems cluster, which also includes: 1) the Catalysis program; 2) the Interfacial Engineering program; and 3) the Process Systems, Reaction Engineering, and Molecular Thermodynamics program.	Proposals Accepted Anytime

U.S. DEPARTMENT OF DEFENSE (DOD)

The U.S. Department of Defense (DoD) has set an ambitious goal to improve "energy security." It is the single largest consumer of fuel in the world, responsible for 93% of all U.S. government fuel consumption (52% Air Force, 33% Navy, 7% Army and 1% for other DoD uses).



Opportunity #	Opportunity Title (Please click the links for more information on each opportunity)	Pre-Application / Concept Due	Application Due Date
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The U.S. Department of Defense (DOD) has set an ambitious goal to improve "energy security." Its goal is to reduce petroleum use throughout all branches of the military by up to 50% and increase its use of alternative energy sources for all power and fuel consumed by 50%.

DoD bases connected to the grid are vulnerable to power interruptions. Hence, there is a concerted effort to make these bases entirely energy independent, so they can continue to function during power blackouts and fuel delivery interruptions. Forward bases also need their own dedicated source of power.

DOD considers power and fuel sources that are independent, mobile, able to be installed and used where they are most needed, and not vulnerable to supply chain interruptions or attack, matters of national security and military preparedness.

Ongoing DOD Funding Opportunities & Standing Programs

Broad Agency Announcements (BAAs) Only two of the open The Broad Agency Announcement (BAA) is a funding BAA's have closing mechanism utilized by the Department of Defense (DoD) for the dates more than three procurement of basic and applied research by issuing topics for months out; only one of View DoD BAAs scientific study and experimentation, which are directed towards these relates to the topic advancing the state-of-art, increasing knowledge, or understanding areas of interest to ADE rather than focusing on a specific system or hardware solution and AFCC. See below. DoD SBIR 2023.4 xTechPrime Finalist Open Topic Competition. See SBIR/STTR 1/16/2024 Topic A234-P015 Grant Opportunities below. **Commercial Solutions Opening (CSO)** A Commercial Solutions Opening (CSO) is a competitive procedure used to acquire innovative commercial items, No CSOs are technologies, or services. It allows DoD to obtain solutions or N/A currently open potential new capabilities to aid in fulfilling requirements, closing capability gaps, or providing potential technological advancements. **Defense Innovation Unit (DIU)** DIU solicits commercial solutions that address current needs of its DoD partners. As DoD states: You send us a short brief about your solution. If we think there's a good match between your solution and our DoD partners, we'll invite you to provide us with a full proposal — this is the beginning of negotiating all the terms and conditions of a proposed prototype contract. We'll get back to you within 30 days if we're interested in learning more through a pitch. If we're not interested, we'll See first bullet point **Proposals Accepted** strive to let you know ASAP. to the left Anytime After a successful prototype, the relationship can continue and even grow, as your company and any interested DoD entity can easily enter into follow-on contracts. See: https://www.diu.mil/work-with-us Areas of focus include: Optimizing https://www.diu.mil/solutions/portfolio#Energy. energy generation, storage and delivery to ensure installation infrastructure is smart, secure, and efficient AND/OR enhancing the range, duration and efficiency of military



Opportunity #	Opportunity Title (Please click the links for more information on each opportunity)	Pre-Application / Concept Due	Application Due Date
platforms to optir and extreme con	nize performance in contested environments ditions.		
Defense Aduer	and Dessevel Dusiants Anonor (

Defense Advanced Research Projects Agency (DARPA)

An unlikely source of grants and funding; DARPA only selects proposals that are completely untried, never have been done, are full of wouldn't-it-be-wonderful-if imagination and innovation and are directly related to the DOD's primary mission. It does not fund anything that builds on or is an improvement on anything that already has been done.

Small Business Innovation Research (SBIR) Grants

The Small Business Innovation Research (SBIR) grant program was created to enable small businesses to explore their technological potential with two stage grants (Phase 1 and 2), allowing them to move through the first, early-stage Technology Readiness Levels (TRLs) 1 - 4 to provide the incentive to take the next steps toward commercialization. The programs' goals are to:

- Stimulate technological innovation
- Foster technology transfer through cooperative R&D between small businesses and research institutions
- Increase private-sector commercialization of innovations derived from federal R&D.

A dozen agencies have typically offered Phase 1 and Phase 2 SBIR grants; with four agencies also offering Small Business Technology Transfer (STTR) grants.

Many agencies are now participating in "America's Seed Fund" in lieu of the SBIR/STTR program. The seed fund is offered by the National Science Foundation as well as by the Small Business Administration (SBA) for other participating agencies. **See "America's Seed Fund" below.**

Current SBIR/STTR Grant Opportunities

Phase 1 SBRI funding opportunities currently are available from four agencies: the Departments of Defense (DoD) and Health and Human Services, the National Institutes of Health, and the National Science Foundation (NSF)

Of these opportunities, the ones most directly related to innovation, the development of new technologies, and the bioeconomy are one DoD Phase 1 SBIR grant opportunity as well as 255 opportunities offered by the NSF.

<u>DoD SBIR 2023.4</u> <u>Topic A234-P015</u>	DoD: xTechPrime Finalist Open Topic Competition. Technology Area: Materials. Modernization Priorities: Advanced Computing and Software - Advanced Materials - Human-Machine Interfaces - Integrated Network Systems- of-Systems - Integrated Sensing and Cyber - Microelectronics - Renewable Energy Generation and Storage - Trusted AI and Autonomy. Summary: The U.S. Army is inviting interested entities to participate in the xTechPrime competition, a forum for eligible small businesses and technology integrators to form teams in order to bring forward innovative technology solutions to solve current Army needs. For more information , click the link to the left under Opportunity #.	N/A	1/16/2024
various	NSF: <u>Click here to view the SBIR's current</u> <u>solicitations listing;</u> next, in the "Agency" menu on the left side of the screen, scroll down and check the box ⊠ next to National Science Foundation (255)	N/A	11/1/2023

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 Opportunity #	Opportunity Title (Please click the links for more information on each opportunity)	Pre-Application / Concept Due	Application Due Date	
America's Seed Fund				

America's Seed Fund, which is powered by the National Science Foundation (NSF) and Small Business Administration (SBA), helps startups and small businesses transform their ideas into marketable products and services.

The seed fund focuses on high-risk, high-impact technologies — those that show promise but whose success hasn't been validated.

NSF awards \$200 million in funding each year to roughly 400 entrepreneurs and companies across nearly all technology areas and market sectors. The SBA will invest \$4 billion per year and fund 4,000 projects.

Awardees receive the funding they need as a startup or small business to commercialize technically risky ideas. Awardees work with a program director, who serves as their mentor and advocate.

Awardees retain full control of their team, their technical vision and business strategy, and the resulting intellectual property. The NSF and SBA take no equity in exchange for funding.

1,500-word proposal pitches can be submitted at any time and will be reviewed to see if a project is a good fit.

Ongoing Opportunities – Open Submissions

none	Small Business Administration	1,500-word Project Pitch - required	Open submission – you may submit at any time
none	National Science Foundation	1,500-word Project Pitch - required	Open submission – you may submit at any time

More Grant Information

American Diversified Energy's "Find Funding" Page

American Diversified Energy specializes in preparing applications of all kinds: grants and loan guarantees, responses to Requests for Proposals (RFPs), bid submissions, debt financing, confidential information memoranda, private placement memoranda, offering memoranda, project financing documentation, and more.

<u>The American Diversity Energy website</u> provides links to over 100 places where you can find information on grants and loan guarantees, incentives, and listings of RFPs.

These links can be found on the following pages: "Find Funding," "Federal Grants," (which includes links to funding opportunities from the U.S. Department of Agriculture, U.S. Department of Commerce, U.S. Department of Defense, U.S. Department of Energy, U.S. Department of the Interior, U.S. Department of Transportation, U.S. Environmental Protection Agency, U.S. Treasury, National Institutes of Health, and the National Science Foundation), "State Grants & Incentives," "Federal Loan Guarantees," "RFP and Bid Opportunities," "Small Business Innovation Research/Small Business Technology Transfer (SBIR/STTR) Grants," "Minority- and Women-Owned Businesses," "New Business Grants & Loans," "Technology Readiness Levels (TRLs)," and "A Directory of Federal Funding for Each TRL."

For more information on the assistance that ADE's subject matter experts can provide in preparing applications, proposals, RFP responses, and financing documentation, call **202-750-0007** or email <u>info@ade.llc</u>