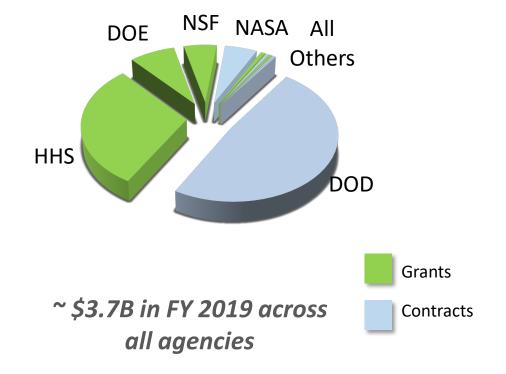


Second and Third Phase II Awards at the Department of Energy

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FY 2019 SBIR/STTR Budgets by Agency



AGENCIES WITH SBIR & STTR PROGRAMS	APPROX BUDGET
Department of Defense (DOD)	\$ 1.80 B
Department of Health and Human Services (HHS), including the National Institutes of Health (NIH)* *NIH also issues contracts	\$1.15 B
Department of Energy (DOE), including Advanced Research Projects Agency – Energy (ARPA-E)	\$308 M
National Science Foundation (NSF)	\$ 212 M
National Aeronautics and Space Administration (NASA)	\$183 M
AGENCIES WITH ONLY SBIR PROGRAMS	APPROX BUDGET
Department of Agriculture (USDA)	\$30 M
Department of Homeland Security (DHS): Science and Technology Directorate (S&T) & Countering Weapons of Mass Destruction Office (CWMD)	\$17 M
Department of Commerce: National Oceanic and Atmospheric Administration (NOAA) & National Institute of Standards and Technology (NIST)	\$13.4M
Department of Transportation (DOT)	\$8.4 M
Department of Education (ED)	\$5.2 M
Environmental Protection Agency (EPA)	\$3.6 M

U. S. Department of Energy Mission

- **DOE's Mission** is to ensure America's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions.
 - Goal 1: Catalyze the timely, material, and efficient transformation of the nation's energy system and secure U.S. leadership in energy technologies.
 - Goal 2: Maintain a vibrant U.S. effort in science and engineering as a cornerstone of our economic prosperity, with clear leadership in strategic areas.
 - Goal 3: Enhance nuclear security through defense, nonproliferation, and environmental efforts.

Program Offices Participating in the DOE SBIR/STTR Programs

Cyber Security, Energy Security & Emergency Response

Electricity

Energy Efficiency & Renewable Energy

Fossil Energy

Nuclear Energy

Advanced Scientific Computing Research

Basic Energy Sciences

Biological & Environmental Research

Fusion Energy Sciences

High Energy Physics

Nuclear Physics

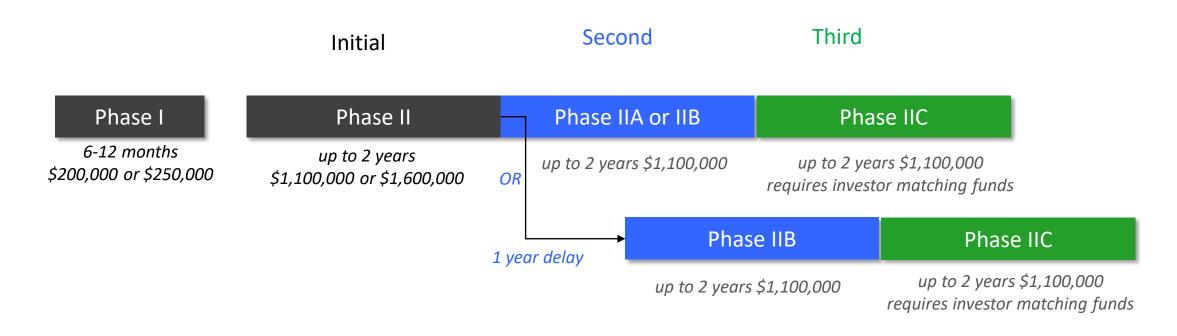
Defense Nuclear Nonproliferation

Environmental Management

Cross Program Awards

- DOE permits applications to be submitted to either SBIR, STTR, or both programs for Phase I or Phase II awards.
- There is no requirement to stay with the same program (SBIR or STTR) for subsequent awards.

Award Sequence

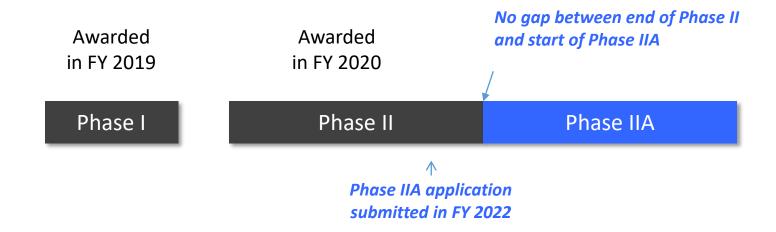


• DOE implemented Second Phase II Awards in FY 2014, Third Phase II Awards in FY 2019

Phase IIA

- Motivation
 - Some Phase II projects are <u>unable to be completed within two years</u> and require more time and funding.
 - DOE program managers select the topics/subtopics for which Phase IIA applications will be accepted
 - Historically such projects required small businesses to complete two or more Phase I/II cycles to complete their R&D
- Timing
 - Phase IIA awards start immediately upon completion of the Phase II award

Phase IIA Timeline



Phase IIB

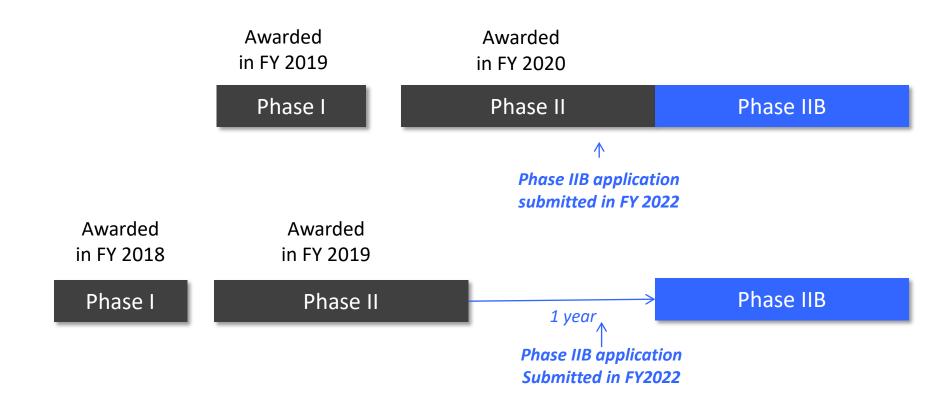
Motivation

- After <u>successfully completing Phase II R&D</u>, some projects may require R&D funding to transition an innovation towards commercialization
- DOE is utilizing Phase IIB to increase the number of positive commercialization outcomes resulting from Phase II awards

Timing

• Phase IIB awards will start immediately after completing a Phase II or up to 1 year later

Phase IIB Timeline: Two Options



Phase IIC: Motivation

- Phase IIC Awards are being made available under a Congressionally mandated Commercialization Assistance Pilot Program. The program extends through September 30, 2025. The intent of the program is reflected in the following statutory considerations
 - (A) the extent to which such award could aid the eligible entity in commercializing the research funded under the eligible entity's Phase 2 II program;
 - (B) whether the updated Phase II commercialization plan submitted under paragraph (4) provides a sound approach for establishing technical feasibility that could lead to commercialization of such research;
 - (C) whether the proposed activities to be conducted under such updated Phase II commercialization plan further improve the likelihood that such research will provide societal benefits;
 - (D) whether the small business concern has progressed satisfactorily in Phase II to justify receipt of a subsequent Phase II SBIR award;
 - (E) the expectations of the eligible third party investor that provides matching funding under paragraph (5); and
 - (F) the likelihood that the proposed activities to be conducted under such updated Phase II commercialization plan using matching funding provided by such eligible third-party investor will lead to commercial and societal benefit.

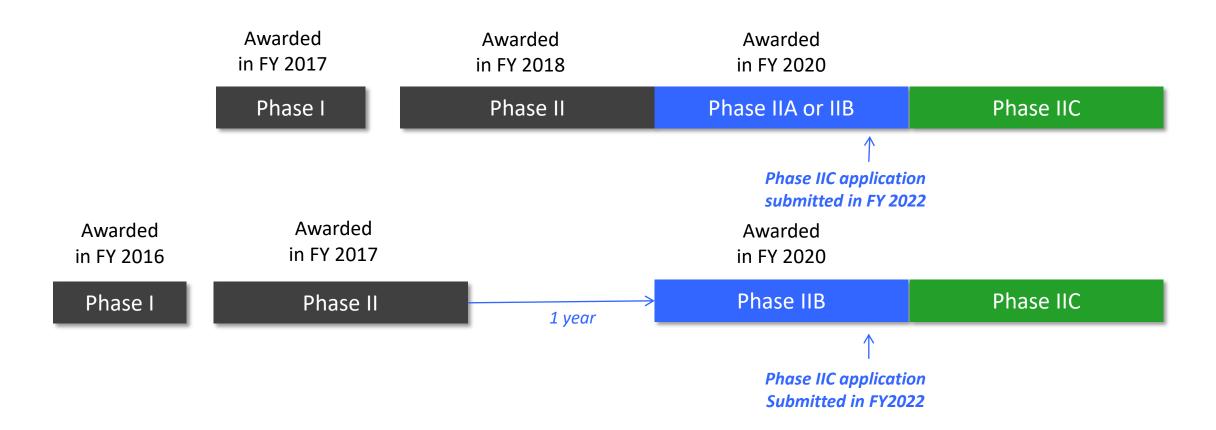
Phase IIC: Eligibility

- A small business must meet the following eligibility criteria
 - Have received an SBIR Phase II award and an SBIR second Phase II Award from the same agency
- Please note that Phase IIC awards are limited by statute to the SBIR program. No Phase IIC awards will be made under the STTR program. Also, to be eligible for Phase IIC your prior Phase II and Phase IIA or IIB awards must be SBIR (not STTR) awards.

Phase IIC: Matching Funds

- A Phase IIC award requires that the applicant have at least 1:1 matching funds equal to the amount of the Phase IIC grant (less fee).
- The matching funds must be from an eligible third-party investor
 - The term 'eligible third-party investor' means a small business concern other than an eligible entity, a venture capital firm, an individual investor, a non-SBIR Federal, State or local government, or any combination thereof.
 - Please note that SBIR/STTR Phase I, II, or III funding from a Federal agency may not be used as matching funds.
- The following types of funding do not qualify as matching funds
 - The eligible entity's internal research and development funds.
 - Funding in forms other than cash, such as in-kind or other intangible assets.
 - Funding from the owners of the eligible entity, or the family members or affiliates of such owners.
 - Funding attained through loans or other forms of debt obligations.
- Matching funds must be contingent upon receiving a Phase IIC award

Phase IIC Timeline



Phase II Application & Award Statistics for FY 2021

- Phase II
 - 358 applications
 - 146 awards



- Phase IIA
 - 31 applications
 - 18 awards



- Phase IIB
 - 83 applications
 - 28 awards



Cross-Agency Funding

Phase II

- Currently DOE Phase II awards are open to Phase I Awardees from other agencies
 - Phase I award must be from the prior year
 - Innovation must be aligned with a DOE topic (DOE pre-approval required)
 - Applicant must not be submitting Phase II application to the agency that issued the Phase I award

Second & Third Phase II

- DOE is a science agency and typically does not procure technologies for its own use
- DOE Second and Third Phase II awards are only open to DOE Phase II awardees to assist with maturing their technology for commercialization
- Historically, we have found that procurement agencies such as DOD or DHS are interested in pursuing second Phase II or Phase III awards for DOE SBIR/STTR projects

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