

The Army xTech Program – xTechSBIR Clean Tech Competition Announcement

I. Background Information

The U.S. Army would like to invite interested entities to participate in the xTech Small Business Innovation Research (SBIR) Clean Tech competition, a clean tech open-topic competition to engage with the Army, earn prize money and provide potential funding opportunities to tackle Army challenges within the clean tech space. Winners of xTechSBIR Clean Tech competition will be invited to submit a Phase I or a Direct to Phase II SBIR proposal to prototype their proposed technology innovations.

The xTechSBIR Clean Tech competition is sponsored by the Assistant Secretary of the Army (Acquisition, Logistics, and Technology). As the Army aims to reduce greenhouse gas emissions by 30%, by 2030, ASA(ALT) is committed to that mission through supporting technological innovation and utilizing the Army xTech and Army SBIR programs to help in achieving the Army's overarching goals. The ASA(ALT) recognizes that the U.S. Army must enhance engagements with small businesses by (1) understanding the spectrum of 'world-class' technologies being developed commercially within the clean tech realm, that may benefit the Army, (2) integrating the sector of commercial innovators into the Army's Science and Technology ecosystems, and (3) providing mentorship and expertise to accelerate, mature, and transition technologies of interest to the Army.

II. Purpose

The xTechSBIR Clean Tech competition aims to accelerate the integration of technology solutions for crucial Army capability gaps within the clean tech focus areas. The competition is an opportunity for eligible entities to pitch their transformative technology solutions directly to the U.S. Army. In addition to cash prizes, participants will receive operationally-relevant and technical feedback from Army and Department of Defense experts on proposed ideas submitted to this competition, direct exposure to key stakeholders, and the potential for SBIR contracts.

The competition will consist of three-rounds: (1) Call for concept white papers and (2) virtual technology pitch event. Up to 50 finalists will be selected from the white paper round, receive a prize of \$2,000 each and an invitation to participate in the virtual technology pitch event. Up to 35 winners will be selected from the pitch event to receive an additional prize of \$10,000 each and an invitation to either submit for a Phase I SBIR worth up to \$250,000 each or a Direct to Phase II SBIR worth up to \$1.8M each. A separate public SBIR announcement will be issued concurrent with this prize competition announcement which will be limited in terms of eligibility to the winners from the second round.

The efforts described in this Notice are being pursued under the authorities of 10 U.S.C. § 4025, 10 U.S.C. § 4022, and 15 U.S.C. § 638.

III. Eligibility Requirements:

The entities allowed to participate in this competition must be sole proprietors or small business concerns in accordance with Small Business Administration guidance under 13 Code of Federal Regulations § 121.201 or any entity willing and able to be registered as a small business in the United States (U.S.) if selected to participate in this competition.

Each eligible entity:

- Shall be incorporated in, and maintain a primary place of business in the U.S.
- May not be a Federal entity or employ a Federal employee acting within the scope of their employment

Sole proprietors may participate in xTechSBIR if the individual is a citizen or national of the U.S. or a lawful permanent resident of the U.S. and the business is registered in the U.S. Foreign companies may participate in xTechSBIR by establishing a U.S. domestic business relationship (e.g., wholly owned U.S. subsidiary) or partner with an U.S. based company.

IV. Clean Tech Focus Areas

The xTechSBIR Clean Tech competition is seeking novel, disruptive concepts and technology solutions that have both civilian and military applications (dual use capabilities) that can assist in tackling the Army's current needs and be applied to current Army concepts. The intent is to provide the Army with transformative technology solutions while enabling cost savings throughout the Army systems life-cycle. Participants can submit applications on any solution related to clean tech that might apply to the Army's current needs. Below is a list of key focus areas for this competition, but eligible entities can submit on solutions outside of these areas that are related to clean tech.

Clean Energy Generation. The U.S. Army is looking for reliable and affordable ways to generate energy from renewable, zero-emission, non-polluting sources. This includes solar, wind, water, nuclear, thermal, and waste-to-energy based energy solutions or a combination of these alone or with legacy DOD power generation systems.

Clean Energy Storage. Clean Energy Storage focuses around energy storage systems (batteries, capacitors, hybrid devices, and DC/DC converters) and the technology solutions to optimize single cell, modules, and vehicle-packaged cost, performance, safety, life, abuse tolerance, recycling, and sustainability within production, use, and disposal processes.

Clean Micro Grid. Clean micro grids focuses on devices and controlling digital information systems that optimize the efficiency, reliability, and security of grid-delivered power. This includes management, energy storage, metering & monitoring, AI grid optimization, sensors, diagnostics/prognostics, and analytics.

Electric Transportation. Electric transportation focuses on software and hardware solutions for electric and hybrid-electric systems for vehicles and aviation. This includes the supporting infrastructure for operational energy availability and sustainment. Components may include platform rechargers with or without power generation sources, range extenders, and battery technologies.

Clean Industry Tech. Clean Industry Tech puts focus on overall sustainability of industrial processes and associated supply chains. This area emphasizes emissions minimization and efficiency maximization. Solutions sought includes altering manufacturing processes to decrease resource consumption, generate sustainable power and fuels, and develop alternatives for environmentally harmful or scarce materials.

V. Program Submission:

The xTechSBIR Clean Tech competition is voluntary and open to all entities that meet the eligibility requirements. **There may be only one submission per eligible entity.** The registration information and upload submission must be received by **5:00 PM EDT on May 9, 2022**. Submissions received after the deadline will not be considered.

Register now by selecting the xTechSBIR Clean Tech competition tile at:

<https://www.xtechsearch.army.mil/>

All xTechSBIR Clean Tech competition submissions are treated as privileged information and contents are disclosed to U.S. defense civilian and military employees or designated support contractors only for the purpose of evaluation and program support.

Detailed feedback from the judges panel will be provided to the participants throughout each phase of the competition. The purpose of providing this feedback is to help accelerate transition of the technology to a U.S. military end-user by providing insight on best applications for the technology, suggestions for product improvement for military use and recommended next steps for development. However, the Government will not respond to questions or inquiries regarding this feedback.

Part 1: Concept White Paper

All eligible entities shall submit a short 3-page concept white paper outlining potential for impact/revolutionary for DOD; technology and concept viability; and commercialization potential. Each concept white paper will be reviewed by Army stakeholders including user, program acquisition, and research and development subject matter experts.

All concept white papers must adhere to the following requirements:

- All concept white papers must be submitted using the template found on the registration page, "*xTechSBIR Clean Tech Competition _WhitePaper_Template.doc*". **Any proposals submitted in a format other than that provided by the template will not be reviewed.**
- Please list your company name, and proposal title EXACTLY how you would like them to appear on any contest marketing materials. Use clear and concise proposal titles to give readers and potential stakeholders an understanding of how your technology would benefit the Army.

Concept white papers will be evaluated and ranked using the following scoring criteria (further details on each scoring dimension can be found on the xTechSBIR Clean Tech competition registration page):

- Introduction, Program Alignment – 25%
- Potential for Impact/Revolutionary for DOD – 15%
- Technology and Concept Viability– 30%
- Commercialization and Potential – 20%
- Submission Quality – 10%

Upon conclusion of the concept white paper evaluation period, the Government will select up to 50 finalists who will each receive a prize of \$2,000 and an invitation to Part 2: Technology Pitches, tentatively scheduled for June 2022.

Part 2: Final Technology Pitches

In Part 2, the finalists will conduct a virtual pitch to a panel of Army SMEs scheduled from June 27 – July 1, 2022 (dates will be finalized with participants) and are subject to change. Participants will pitch their technical volume being proposed for a potential Phase I or Direct to Phase II award. Each participant will have 20-minutes to pitch, followed by 10-minutes for questions and answers with the judges' panel. Further details on each scoring dimension will be provided to the finalists selected for Part 2.

Participants will be asked to submit supplemental information aligning to the SBIR announcement which will include the cost volume, company commercialization report and any additional supporting documents outlined in the SBIR announcement.

Upon conclusion of the technology pitches, the Government will select up to 35 winners to receive an additional prize of \$10,000 and will have an opportunity to submit for a Phase I SBIR award worth up to \$250,000 each or a Direct to Phase II award worth up to \$1.8M each.

Part 3: Request for SBIR Phase I or Direct to Phase II

A separate public SBIR announcement will be issued concurrent with this prize competition with detailed instructions on how to submit the SBIR proposal materials. Winners selected from Part 2: Technology Pitches will be the **only entities eligible** to participate in Part 3 and submit a Phase I proposal or Direct to Phase II proposal under the SBIR announcement.

VI. Prizes and Incentives

Prizes will be offered under 10 USC §4025 (Prize competitions). The current prize pool is \$450,000 and will be finalized at the close of the announcement. The SBIR contract awards will be offered under 15 USC 638; each Phase I SBIR proposal shall be up to \$250,000 each and each Direct to Phase II SBIR proposal shall be up to \$1.8M. Other non-monetary incentives are provided through the xTechSBIR Clean Tech competition to help small businesses engage with the Army.

<i>Phase</i>	<i>Winners</i>	<i>Prize</i>	<i>Phase I SBIR Award</i>	<i>Direct to Phase II SBIR Award</i>
Part 1: Concept White Paper	Up to 50	\$2,000 each	N/A	
Part 2: Technology Pitches	Up to 35	\$10,000 each	N/A	
Part 3: SBIR Phase I or Direct to Phase II	Up to 35	N/A	Up to \$250K each	Up to \$1.8M each
	Total	\$450,000	Up to \$8.75M	TBD

Proposed Schedule (Subject to Adjustments):

Date	Activity
11 April – 9 May 2022	Application Part 1: Concept white paper submission period
8 June 2022	Part 1 Finalists Notified
27 June – 1 July 2022	Final Technology Pitches
8 July 2022	Part 2 Winners Announced/SBIR Instructions shared
15 July 2022	SBIR Phase I
October 2022	SBIR Phase I notification

VII. Disclaimers

Registered participants shall be required to assume any and all risks and waive claims against the Federal Government and its related entities, except in the case of willful misconduct, for any injury, death, damage, or loss of property, revenue, or profits, whether direct, indirect, or consequential, arising from their participation in this prize competition, whether the injury, death, damage, or loss arises through negligence or otherwise.

VIII. Intellectual Property

The Army is a strong proponent of deliberate intellectual property (IP) rights and management by the private sector and the DOD.

For the xTechSBIR Clean Tech Competition:

- The Federal Government may not gain an interest in IP developed by a participant without the written consent of the participant;
- Nothing in this xTechSBIR Clean Tech competition shall diminish the Government's rights in patents, technical data, technical information, computer software, computer databases, and computer software documentation that the Government had prior to this xTechSBIR Clean Tech prize competition, or is entitled to, under any other Government agreement or contract, or is otherwise entitled to under law; and
- The Federal Government may negotiate a license for the use of IP developed by a registered participant in the prize competition.

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<https://www.xtechsearch.army.mil/>

IX. Point of Contact

The xTech Program Office

Office of the Deputy Assistant Secretary of the Army, Research and Technology

Email: usarmy.pentagon.hqda-asa-alt.mbx.xtechsearch@army.mil

Website: <https://www.xtechsearch.army.mil>