

Key Questions at the Pitch Stage

Note: The questions included here are not intended to have predetermined right or wrong answers. You may refer to information from the structured questions below in your narratives for Technical Promise, Commercialization Potential, and Team Qualifications rather than repeating it. No single response will determine an application's score or outcome. All responses will be considered alongside the pitch narratives to support a comprehensive, holistic evaluation of the pitch's merits.

1. Project Summary, Topic, and Mission Alignment (100 words or less)

Provide a brief, plain-language summary of your proposed project. Your summary should be understandable to a technically literate reader who is not a specialist in your field. Avoid unnecessary jargon and acronyms. Explain:

- **The Problem:** What specific problem or unmet need are you addressing?
- **The Solution:** What technology or innovation are you proposing to develop?
- **The Value:** What meaningful improvement or new capability relevant to U.S. Department of Energy mission areas would result if your project succeeds?
- **Topic and Mission Alignment:** Describe how your project aligns with your chosen topic area as well as U.S. Department of Energy's mission and priorities.

Technical Promise Overview

2. Technical Promise Narrative (200 words or less)

Describe the scientific or engineering foundation of your proposed project and explain why it warrants further research and development. Your response must address:

- **Significance:** What important technical problem or limitation does your innovation address, and why is solving it important?
- **Innovation:** What is new or meaningfully different about your approach compared with existing technologies or methods?
- **Feasibility:** Why is your approach technically plausible? What is the principal technical uncertainty that Phase I research will investigate, and how will the proposed work help resolve it? A complete technical work plan is not required at the pitch stage.

3. Help us understand your objective. We are looking for novel ideas, what specific technical result(s) would demonstrate technical feasibility? (25 words or less)

Identify the primary technical outcome, result, performance target, or demonstration that would support the feasibility of your proposed innovation by the end of Phase I.

4. What are the most significant technical uncertainties that could affect the success of your proposed innovation? (Select all that apply.)

Select all technical uncertainties that could materially affect the success of your proposed innovation. Identify the most critical uncertainty and briefly describe how the proposed Phase I research will investigate or address it.

- ☐ **Scientific or Engineering Feasibility:** Uncertainty about whether the underlying scientific concept, technical approach, or engineering design will work as intended.
- ☐ **Required Technical Performance:** Uncertainty about achieving critical performance measures, technical specifications, or solicitation topic requirements.
- ☐ **Integration or Interoperability:** Uncertainty about whether the innovation can function effectively with other necessary components, technologies, or systems.
- ☐ **Scalability or Manufacturability:** Uncertainty about whether the approach can be scaled, reproduced, or manufactured as needed.
- ☐ **Reliability or Durability:** Uncertainty about whether the innovation can perform consistently under expected operating conditions or over time.
- ☐ **Other (please specify):** An important technical uncertainty not captured above.

5. How may the Department of Energy's SBIR/STTR program best help you address these technical uncertainties? (25 words or less)

Provide specific examples of services or tools that DOE could provide during your project.

Commercialization Potential Overview

6. Commercialization Potential Narrative (200 words or less)

Describe the potential commercial value of your proposed innovation and how it could reach customers or users. Your response must address:

- **Value Proposition:** Who would benefit from the innovation, what problem or need would it address, and why would the proposed solution be valuable?
- **Competitive Advantage:** What existing products, technologies, or alternative approaches address this need, and what meaningful advantage would your innovation offer?
- **Go-to-Market Strategy:** What is your envisioned path toward commercialization or adoption, including your likely initial market or application? Focus on the anticipated opportunity and the rationale supporting it. A detailed commercialization plan is not required at the pitch stage.

7. Where are you on your path to commercialization? What is the strongest indication of customer, user, and/or market demand for your idea or innovation? (Select one)

Select the option that best represents the strongest evidence available that customers, users, or beneficiaries need or would benefit from your innovation. Consider evidence already obtained rather than validation activities planned for the future.

- ☐ **Hypothesized Need:** The need is based primarily on the applicant's understanding of the problem, with limited or no external validation.
- ☐ **Published Research or Documented Requirements:** The need is supported by published studies, market research, industry reports, or documented customer, industry, or government requirements.
- ☐ **Direct Customer or User Engagement:** The need is supported by interviews, surveys, discussions, or feedback from prospective customers, users, or beneficiaries.
- ☐ **Specific Interest or Commitment to Evaluation:** Prospective customers, users, or partners have expressed specific interest or committed to evaluating, testing, or piloting the innovation.
- ☐ **Purchases, Contracts, Paid Pilots, or Commercial Adoption:** Demand is demonstrated through actual purchases, executed customer contracts, paid pilot activities, or existing commercial adoption.
- ☐ **Other (please specify):** Relevant evidence of demand not captured by the options above.

8. As you look ahead to commercializing your idea, what are you most worried about? What are the hurdles or barriers that you feel could affect the adoption of your innovation? (Select up to three.)

Select all barriers that could materially affect the ability to bring your innovation to market or achieve adoption. Identify the most consequential barrier and briefly describe how you propose addressing it.

- ☐ **Customer Demand or Market Validation:** Uncertainty about whether sufficient customer or user demand exists or whether the proposed solution adequately addresses market needs.
- ☐ **Cost or Economic Viability:** Challenges related to production costs, pricing, affordability, profitability, or the economic value offered to customers.
- ☐ **Competitive Differentiation:** Challenges demonstrating meaningful advantages over existing products, technologies, or alternative solutions.
- ☐ **Regulation, Qualification, or Certification:** Requirements for regulatory approval, industry qualification, certification, or compliance that could delay or limit market entry.

- ☐ **Market Access or Customer Adoption:** Challenges reaching target customers, establishing distribution channels, navigating procurement processes, or encouraging customers to adopt the innovation.
- ☐ **Supply Chain or Manufacturing Scale-Up:** Challenges securing materials, suppliers, manufacturing capabilities, or resources necessary for commercial production and delivery.
- ☐ **Other (please specify):** A significant commercialization or adoption barrier not captured above.

9. How may the Department of Energy's SBIR/STTR program best help you address these commercialization hurdles and/or barriers? (25 words or less)

Provide specific examples of services or tools that DOE could provide during your project.

Team Qualifications Overview

10. Team Qualifications Narrative (200 words or less)

Describe why your team is capable of executing not only the proposed Phase I research but advancing the resulting innovation through a Phase II award and towards commercialization. Your response must address:

- **Company:** Explain how your team's relevant expertise and prior accomplishments support the proposed R&D and describe your team's ability and commitment to pursuing commercialization, including relevant experience or plans to obtain necessary expertise.
- **Partnerships:** Explain how available or planned facilities, collaborators, and other resources support project execution.
- **Financial:** Describe your anticipated approach to securing the resources or follow-on funding needed to advance the innovation beyond Phase I. You may refer to information from the structured questions below rather than repeating it.

11. How many individuals do you expect to contribute (substantively) to the proposed Phase I project? (Select one.)

Include company personnel and external collaborators expected to make meaningful contributions to the proposed Phase I research. Please count distinct individuals (not project headcount), including those with defined technical, research, commercialization, or project execution responsibilities. Note: this is not a budgetary measure of the estimated project headcount, we want to understand the scope of collaboration.

- ☐ 1 to 2 individuals
- ☐ 3 to 5 individuals
- ☐ 6 to 10 individuals
- ☐ More than 10 individuals

12. What relevant technical or R&D accomplishments do you and the team bring to the proposed project? (Select all that apply.)

Select all accomplishments demonstrated by you/your team that are relevant to the proposal. Include research, technology development, prototypes, demonstrations, or practical deployments, regardless of whether these activities were supported by SBIR/STTR funding. Use the Team Qualifications narrative to explain their relevance.

- ☐ **Completed Relevant Research or R&D:** Conducted scientific research, engineering development, or technical investigations relevant to the proposed innovation.
- ☐ **Developed or Demonstrated Prototypes:** Designed, built, tested, and/or demonstrated prototypes, proof-of-concept systems, or related technologies.
- ☐ **Deployed Technologies in Practical Environments:** Implemented or tested technologies in real-world, field, industrial, commercial, or operational environments.
- ☐ **Other Relevant Technical Accomplishments (please specify):** Relevant technical achievements not captured by the options above.
- ☐ **None of the Above:** The team has not yet demonstrated these types of relevant technical accomplishments.

13. What, if any, commercialization experience do you and/or your team bring to the proposed innovation? (Select all that apply.)

Select commercialization experiences previously undertaken by you or members of your team. Include relevant experience from prior ventures, employment, or projects, not solely activities associated with the proposed innovation.

- ☐ **No Prior Commercialization Experience:** The team has not yet undertaken the activities listed above.
- ☐ **Conducted Customer Discovery or Market Validation:** Engaged prospective customers or users to understand needs, validate demand, or evaluate market opportunities.
- ☐ **Developed Commercialization or Go-to-Market Strategies:** Developed plans addressing target markets, customers, pricing, business models, or market entry.
- ☐ **Established Commercial Relationships:** Developed customer relationships, strategic commercial partnerships, distribution arrangements, or sales channels.
- ☐ **Launched or Commercialized Products or Services:** Successfully introduced technologies, products, or services into commercial markets.
- ☐ **Generated Commercial Revenue:** Generated revenue through product sales, licensing, or commercial services.

- ☐ **Secured Commercialization Funding:** Obtained private investment or other funding intended to support commercialization activities.
- ☐ **Other Relevant Commercialization Experience:** Please specify.

14. What help do you think you need? Are there gaps in the capability, facilities or equipment, external partners, academic or National Labs or any other resource gaps? (Select all that apply.)

Select all gaps that could materially affect your team's ability to execute Phase I or advance toward commercialization. Identify the most critical gap and briefly describe how you intend to address it.

- ☐ **No Significant Gaps:** No material capability or resource gaps have been identified.
- ☐ **Specialized Technical Expertise:** Additional scientific, engineering, or technical skills are needed to complete the proposed work.
- ☐ **Commercialization Expertise:** Additional business development, market assessment, product commercialization, or related expertise is needed.
- ☐ **Facilities or Equipment:** Access to specialized laboratories, testing environments, equipment, or infrastructure is needed.
- ☐ **External Partners or Collaborators:** Additional research, technical, industrial, or commercial partnerships are needed.
- ☐ **Academic or National Laboratory Partners:** Universities, research institutions, or government laboratories supporting research or development.
- ☐ **Funding or Financial Resources:** Additional financial resources are needed to complete development activities or support advancement beyond Phase I.
- ☐ **Project Management or Operations:** Additional personnel, organizational systems, or management capabilities are needed to execute the project effectively.
- ☐ **Other Significant Gaps:** Please specify.

15. Please indicate the extent to which, if any, generative Super Intelligence (SI) technology was used and how it was used to develop your application or proposal:

Note that all submissions to the Department are subject to information and disclosure statutes and regulations, including the Freedom of Information Act, Privacy Act, and 10 CFR § 1004.11. Applicants are responsible for the accuracy, authenticity, and authorship representations of their proposal submission under consideration for merit review, including content developed with the assistance of generative super intelligence (SI) tools. The applicant is responsible for ensuring that they are fully capable of performing the work described in the application and that the submission of the application does not and will not infringe or violate any rights of any third party or entity.

Applicants should be aware that the use of generative AI may introduce significant risks, including, but not limited to, research misconduct resulting from fabrication, falsification, or plagiarism when proposing, performing, or reviewing research, or in reporting research results. Federal regulations governing procedures for handling of research misconduct allegations concerning research supported by DOE grants, cooperative agreements, and management and operations (M&O) contracts, are specified in 10 CFR Part 733.