EnergyTech University Prize
2025 Official Rules Document

September 30, 2024

Office of Technology Transitions

AMERICAN MADE
U.S. DEPARTMENT OF ENERGY

Contents

1 Welcome to the EnergyTech University Prize

Welcome to the U.S. Department of Energy (DOE) Office of Technology Transitions (OTT) EnergyTech University Prize (EnergyTech UP)! EnergyTech UP offers two separate tracks—one for students and one for faculty members.

In the Student Track of EnergyTech UP, student teams will compete for a share of $435,000 in cash prizes for successfully identifying a promising energy technology, assessing its market potential, and creating a business plan for commercialization. Through the student portion of the competition, EnergyTech UP aims to cultivate the next generation of energy innovators while accelerating the transfer of energy technologies to market. In 2024 alone, the competition engaged more than 775 student participants within 225 teams from 113 collegiate institutions. By empowering a growing number of diverse students across the nation with knowledge and skills in energy technology commercialization, DOE seeks to stimulate the growth of the next generation of clean energy technology entrepreneurs.

This prize seeks to attract and support the talented students of today and help them grow into the engineers, policymakers, entrepreneurs, market analysts, and project developers of tomorrow. Multidisciplinary student teams will develop and present a business plan that leverages national laboratory-developed or other high-potential energy technologies, including university-developed technologies or other technologies of interest to student competitors.

The Faculty Track of EnergyTech UP seeks to expand the impact of the student EnergyTech UP program. In the Faculty Track, individual faculty members (or faculty teams) will compete for a share of $110,000 in cash prizes for the successful development and implementation of educational activities (e.g., coursework, accelerator, program) that engage an increasing number of students on energy technology commercialization and entrepreneurship topics at their institution. The goal of the EnergyTech UP Faculty Track is to increase the number and diversity of students who have access to educational activities that help them learn about energy technology commercialization and entrepreneurship.

This OTT program is seeking a diverse set of faculty (in terms of both background and institution type) who are passionate about the development and integration of educational activities centered on energy technology commercialization and entrepreneurship topics at their home institution. The content provided by faculty through their submissions is expected to inform a toolkit to be developed by OTT following the conclusion of this competition. The toolkit can potentially help other faculty members across the nation build entrepreneurship and commercialization activities at their institutions.

This prize is sponsored by DOE's OTT as well as several other DOE program offices, as noted in Section 8.10. EnergyTech UP, in partnership with American-Made Challenges, is designed to be approachable, equitable, and scalable nationwide. Winners will be chosen based on the strength of their proposal. Students interested in participating in the student prize will be provided with a curated list of national lab technologies that are ready for commercialization and can be used in their business plan.

DOE's EnergyTech UP will be governed by this official rules document. The prize administrator, the National Renewable Energy Laboratory (NREL), and DOE reserve the right to modify this official rules

document if necessary and will publicly post any such modifications as well as notify prize competitors of the revised document.

2 About the Office of Technology Transitions

OTT serves as the steward of DOE's research, development, demonstration, and deployment continuum and is sponsoring this prize to help technologies in their progression to commercialization.

DOE's primary mission is to ensure our nation's security and prosperity by addressing its energy, environmental, and nuclear challenges through transformative science and technology solutions. These solutions have given rise to a diverse range of technologies, from the superconducting magnets that enabled magnetic resonance imaging to the battery cathodes that are used in today's plug-in electric vehicles.

World-changing innovations like these become possible only by transitioning technology out of the laboratory and into the commercial sphere. In 2015, the Secretary of Energy authorized the formation of OTT, and in 2020, Congress formalized its establishment.

3 Summary of Important Dates

For the exact times and latest information, visit the HeroX competition platform.

3.1 Student Track

- Monday, September 30, 2024: Rules published
- Thursday, October 24, 2024: Informational webinar introducing EnergyTech UP
- Friday, November 15, 2024: Office hours with prize administrators
- Tuesday, December 10, 2024: Informational webinar focused on track details
- Wednesday, January 8, 2025: Office hours with prize administrators for interested students and faculty
- Tuesday, January 14, 2025: Office hours with prize administrators for interested students and faculty
- Thursday, January 23, 2025: Recruiting webinar and team-building networking event
- Monday, February 3, 2025: Final student Explore Phase registration
- Monday, February 10, 2025: List of competing student teams announced
- Tuesday, February 18, 2025: Welcome and introductory webinar for all competing teams
- Tuesday, March 4, 2025: East regional events occur
- Wednesday, March 5, 2025: Central regional events occur
- Thursday, March 6, 2025: West regional events occur
- Friday, March 14, 2025: Regional finalists and bonus prize finalists announced
- Thursday, April 17, 2025: Business plans and recorded videos due from all finalists
- Friday, April 25, 2025: Final presentation files due from all finalists
- Date to be determined (targeted late April 2025): Final national competition event at partner to be determined.

3.2 Faculty Track

- Monday, September 30, 2024: Rules published
- Thursday, October 24, 2024: Informational webinar introducing EnergyTech UP
- Friday, November 15, 2024: Office hours with prize administrators
- Tuesday, December 10, 2024: Informational webinar on track details
- Wednesday, January 8, 2024: Office hours with prize administrators for interested students and faculty
- Monday, January 13, 2025: Faculty submission deadline for Faculty Explorer prize consideration
- Thursday, January 23, 2025: Faculty Explorer winners announced
- Friday, April 25, 2025: Faculty implementation plan submission deadline
- Thursday, May 8, 2025: Faculty Implementation Phase winners announced.

4 Technology Areas of Interest

Student submissions must focus on technologies that produce and/or store energy, improve the efficiency of energy consumption or energy transmission, or increase the security and reliability of energy systems.

DOE recognizes that primary energy sources take many forms, including nuclear energy; fossil energy like oil, coal, and natural gas; and renewable sources like wind, solar, geothermal, and hydropower. These primary sources are converted to electricity, a secondary energy source, which flows through power lines and other transmission infrastructure to homes and businesses.

Keeping power flowing to our nation's homes and businesses is a necessity for everyday life and economic vitality. DOE works to keep the grid secure from cyber and physical attacks, partners with states and other stakeholders to plan more weather-resilient infrastructure, and works to increase grid efficiency and energy storage capacity as more renewable energy sources come online.

Student teams may focus their submissions on technologies developed at a DOE national laboratory, technologies developed by the students themselves, or technologies developed at their institution. Teams are not required to have secured a license or rights to a technology to present a business plan that leverages that technology, but they should have confidence that the technology could hypothetically be licensed or otherwise be made available to a team for use as part of their business model.

Several DOE technology offices are offering technology bonus prizes for the best student entries in each technology office's respective field. Teams searching for a technology to build a business plan for are encouraged to engage with the OTT Lab Partnering Service described in 6.1 Lab Partnering Service below.

5 Diversity, Equity, and Inclusion

It is the policy of the Biden administration that:

> "The Federal Government should pursue a comprehensive approach to advancing equity for all people, including people of color, who have been historically underserved, marginalized, or adversely affected by persistent poverty or inequality.
>
> Affirmatively advancing equity, civil rights, racial justice, and equal opportunity is the responsibility of the whole of our government. Because advancing equity requires a systematic approach to embedding fairness in decision-making processes, executive departments and agencies (agencies) must recognize and work to redress inequities in their policies and programs that serve as barriers to equal opportunity.
>
> By advancing equity across the Federal Government, we can create opportunities for the improvement of communities that have been historically underserved, which benefits everyone."[1]

As part of this whole-of-government approach, this competition seeks submissions that will benefit members of disadvantaged communities and underrepresented groups. The formation of diverse student teams composed of individuals from groups historically underrepresented in science, technology, engineering, and mathematics (STEM) is highly encouraged. Student teams are also highly encouraged to develop business plans that would benefit disadvantaged communities and/or underrepresented groups.[2] Faculty teams are encouraged to submit work with high impact for teaching to underserved communities or underrepresented communities and/or teaching about how to ensure an equitable energy transition.

Further, to remove barriers to entry for all team members, the judging criteria have been established to determine success based on the strength of the proposal.

[1] https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/20/executive-order-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government/

[2] Pursuant to E.O. 14008, "Tackling the Climate Crisis at Home and Abroad," January 27, 2021, and the Office of Management and Budget's Interim Justice40 Implementation Guidance M-21-28, DOE recognizes disadvantaged communities as defined and identified by the White House Council of Environmental Quality's Climate and Economic Justice Screening Tool (CEJST).

6 Other Relevant Programs and Opportunities

In addition to EnergyTech UP, DOE funds several related programs that may provide additional value, context, or guidance to competitors. Participants are encouraged to learn more about each program as they develop their ideas and to consider additional opportunities.

6.1 Lab Partnering Service

OTT's Lab Partnering Service (LPS) is a suite of online applications that enables access to leading experts, innovations, and patents from across DOE and DOE's national laboratories. It delivers a myriad of information to provide access to a portfolio of investment opportunities. The LPS enables fast discovery of expertise and serves as a conduit between the investor and the innovator by providing multifaceted search capabilities across numerous technology areas and the DOE national laboratory complex. In support of EnergyTech UP, a custom "popular topic" tab has been created that highlights technology summaries, experts, facilities, and success stories from the national lab complex that may be of particular interest to competitors. Teams that are interested in participating in this contest but have yet to identify a technology to focus on should use this service to explore potential technologies.

LPS also has a search tool called the Visual Intellectual Property Search (VIPS). This tool enables a unique, visually facilitated search of the patent content in the LPS, which consists of published U.S. patent applications and issued U.S. patents resulting from research and development (R&D) funded by DOE as well as other organizations, namely NASA and the U.S. Department of Homeland Security. The patents are pulled from the U.S. Patent and Trademark Office patent database and show patents and patent applications from the last 20 years.

6.2 Energy I-Corps

Energy I-Corps, a key initiative of OTT, pairs teams of laboratory researchers with industry mentors for an intensive 2-month training in which the researchers define technology value propositions, conduct customer discovery interviews, and develop viable market pathways for their technologies. Researchers develop a framework for industry engagement to guide future research and inform a culture of market awareness within their labs. In this way, Energy I-Corps ensures investment in the national labs maintains and strengthens U.S. competitiveness over the long term.

All competing teams will receive access to the recorded Energy I-Corps curriculum and associated materials (typically available only to DOE national lab complex researchers).

6.3 Adoption Readiness Level Framework and the Commercial Adoption Readiness Assessment Tool

To achieve deployment, a technology must be sufficiently de-risked, and ecosystem economics must be established so that every player in the value chain has a viable economic model. This means that managing a technology portfolio solely through the well-understood and widely used technology readiness level (TRL) stage-gates is not enough. To describe market adoption risks, OTT has developed the adoption readiness level (ARL) framework to complement TRLs, in partnership with

other DOE and industry stakeholders. The ARL framework assesses the market adoption risks of a technology and translates this risk assessment into a readiness score, representing the readiness of a technology to be adopted by the ecosystem. Seventeen dimensions are used to determine a technology's ARL, and the Commercial Adoption Readiness Assessment Tool (CARAT) integrates these dimensions into an assessment.

Teams are encouraged to consider their technology's ARL and leverage CARAT to inform their entry.

6.4 DOE's Pathways to Commercial Liftoff Reports

DOE plays a critical role in accelerating the commercialization of clean energy technologies and enabling the nation's broader industrial strategy—creating high-quality jobs, strengthening domestic supply chains and global competitiveness, and facilitating an equitable energy transition. DOE's Pathways to Commercial Liftoff reports provide public and private sector capital allocators with a perspective on how and when various technologies could reach full-scale commercial adoption, including a common analytical fact base and critical signposts for investment decisions. The reports are living documents that will be updated periodically and can be found at Pathways to Commercial Liftoff.

6.5 American-Made Network

The American-Made Network provides entrepreneurs with connections to help them succeed. The network is a collective made up of more than 475 technology incubators and accelerators, venture capital firms, angel investors, and industry representatives. Energy entrepreneurs can tap into the industry expertise and resources across the network to help accelerate the development and commercialization of their new ideas and products.

In the American-Made Network, members of the public and private sectors provide mentoring, tools, resources, and support to accelerate the transition of ideas into real-world solutions for environmental justice and economic renewal. Competitors are encouraged to visit the American-Made Network and explore the resources that are available to support their efforts in this prize and beyond.

6.6 Technology Commercialization Fund

A core responsibility of OTT is implementing the Technology Commercialization Fund (TCF), which was authorized in Section 1001 of the Energy Policy Act of 2005. Student competitors are encouraged to review previous TCF awards for inspiration and to consider TCF funding as a possibility in any business plan developed. The TCF is an annual funding opportunity that leverages R&D funding in the applied energy programs to mature promising energy technologies.

The goal of the TCF is twofold. First, it is designed to increase the number of energy technologies developed at DOE's national labs that graduate to commercial development and achieve commercial impact. Second, the TCF aims to enhance DOE's technology transfer system with a forward-looking and competitive approach to lab-industry partnerships.

7 How To Enter

EnergyTech UP will use the HeroX website as its competition platform.

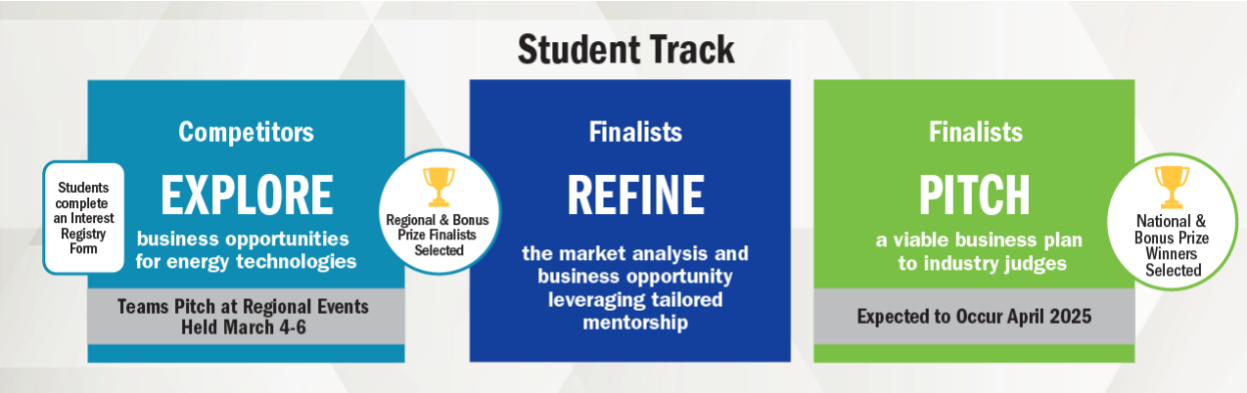
Go to https://www.herox.com/EnergyTechUP and follow the instructions for registering and submitting all required materials before the deadlines identified in Section 3: Summary of Important Dates. Deadlines are also displayed on the HeroX website. In advance of registration, students and faculty can optionally express their interest in competing by completing an Interest Registry Form, which will ensure they receive notifications about program deadlines.

1. Go to the competition page at https://www.herox.com/EnergyTechUP.
2. Create a HeroX account if you do not already have one, including activating your account by clicking the verification link sent to your email. Then, sign in and choose "Solve This Challenge." You will need to accept the competitor agreement to get started. This indicates your interest in competing; it is not a commitment to compete.
3. If you know the email addresses of your team members, or if you are joining an already established team, you can enter that information when prompted. If your team makeup is not yet known, you will have an opportunity to add other team members later. You can continue to adjust your team composition throughout the competition.
4. By the registration deadline, the team captain must click "Submit Final Entry" on HeroX to complete the team's registration. To do so, the team captain must first click "Begin Entry," fill out the required fields, and then choose "Save & Preview." This step is when the team identifies their collegiate institution (accredited trade school, community college, college, university, or graduate school) and expected team makeup. There is no cost to submit a registration entry. Note that you can edit and resubmit your entry as many times as you would like up until the registration deadline.
5. Registration entries received by the deadline are deemed applicant teams.
6. Multiple student teams from a single school may compete, and multiple faculty teams from a single school may compete.
7. Teams may include students from multiple schools.
8. Only one person per team should submit a team registration. Other members can join the registered team via HeroX. Team members may be added or removed from a team at any time. Once you have registered a team, you can invite additional members using HeroX.
9. Following the close of registration for the Student Track Explore Phase, the prize administrators will review all registrations and may reallocate teams across regional conveners to ensure an appropriate and fair competition.
10. Email questions to the organizers at ott.energytechup@nrel.gov.

8 Student Track

The Student Track consists of three phases—the Explore Phase, the Refine Phase, and the Pitch Phase—as summarized in Figure 1.

Figure 1



8.1 Interest Registry (Optional)

Through the optional Interest Registry, students—or faculty advisors—who plan to apply can submit their information via the Interest Registry Form (accessible from the HeroX platform). Submissions will be accepted on a rolling basis and will consist of the individual's name, email, and name of their institution. This will allow DOE to provide communication and resources to interested individuals prior to the start of the competition (Explore Phase).

8.2 Explore Phase

Student teams will apply to become competitors by completing the registration entry form on the HeroX platform. Student applicants will submit a 200-word statement describing their proposed technology and associated business opportunity. Accepted teams will become competitor teams and will be given free access to OTT's Energy I-Corps curriculum to help them refine their ideas.

Student teams will then be invited to participate in a virtually held regional Explore Event. Teams will be matched to a regional convener by the prize administrator after the submission deadline to ensure equitable distribution of teams across each regional Explore Event. A maximum of 225 teams will be accepted, and a maximum of 18 competitor teams will present at each of up to 15 regional events. Each regional event will be held virtually by a regional convener located in the same geographic region as the team. Each team will have 8 minutes to explain their idea to a panel of judges (5 minutes for their initial pitch and 3 minutes for a Q&A period).

These virtual events aim to provide a rich experience for participants, allowing participants to engage in networking opportunities and attend other team and professional presentations. Each team is expected to have at least one student to present live at the virtual regional Explore Event. If a team has a faculty or industry advisor, the advisor is also encouraged to attend the Explore Event. However, faculty, nonstudent team members, and industry advisors may not participate in the team presentation.

Regional Finalists: Up to one student team will be selected as a regional finalist from each of the up to 15 regional events.

Technology Bonus Prize Finalists: From among all presenting teams, up to one Technology Bonus Prize finalist will be identified from each Technology Bonus Prize offered.

National Lab Intellectual Property (IP) Licensing Bonus Prize Finalist: OTT may identify up to one National Lab IP Licensing Bonus Prize finalist from among the eligible presenting teams.

Undergraduate-Only Team Bonus Prize Semifinalists and Finalist: At the conclusion of each regional event, up to one student team will be selected as an Undergraduate-Only Team Bonus Prize semifinalist. These teams' entries will then be reviewed by OTT, who may identify up to one Undergraduate-Only Team Bonus Prize finalist. For the purposes of this competition, "undergraduate-only" includes those attending accredited trade schools, community colleges, and collegiate institutions.

8.3 Refine Phase

In the Refine Phase, all student finalist teams and faculty competitors will be given exclusive mentorship and continued free access to OTT's Energy I-Corps curriculum to help them refine their ideas.

All finalist teams will be paired with a mentor or mentors from industry, a DOE national lab, or DOE. Mentors will give competitors insights into technology development and feedback on their plan in preparation for their Pitch Phase activities. Competitors are also encouraged to explore the 6 Other Relevant Programs and Opportunities (described in Section 6) during this phase.

8.4 Pitch Phase

All finalist student teams will pitch their refined business plans at a national industry event expected to occur toward the end of April 2025. Student teams are expected to present in person at the event.

All student finalist teams will receive access to informative sessions designed to engage thought leadership on critically important topics for our nation's energy and innovation future. No registration or conference fee will be charged to any students or faculty associated with a finalist team to attend, though attendees are required to coordinate and pay for their own travel and lodging expenses.

National Prize Winners: First-, second-, and third-place winners will be identified.

Technology Bonus Prize Winners: The program offices sponsoring each of the Technology Bonus Prizes may identify and award up to one winner for each bonus prize offered.

National Lab IP Licensing Bonus Prize Winner: Up to one winner of the National Lab IP Licensing Bonus Prize may be identified and awarded by OTT.

Undergraduate-Only Team Bonus Prize Winner: Up to one winner of the Undergraduate-Only Team Bonus Prize may be identified and awarded by OTT.

Additional program information is available at www.energy.gov/energytechup. Questions should be submitted to ott.energytechup@nrel.gov.

8.5 Student Eligibility

- All participating students must be enrolled in an accredited collegiate institution. Students must be enrolled in at least one class and must be pursuing a degree throughout the duration of the competition.
- For the purposes of this competition, "collegiate institution" refers to a school of postsecondary or higher education, including but not limited to accredited trade schools, community colleges, colleges, universities, and graduate schools.
- Postsecondary students of any level (associate, bachelor's, master's, Ph.D., certificate, etc.) are eligible to compete.
    - Students will self-certify their eligibility as part of registration for the competition.
    - Current collegiate level will be considered when determining eligibility for the Undergraduate-Only Team Bonus Prize.
    - Teams with students from multiple collegiate institutions are allowed, and multiple teams from the same collegiate institution are allowed.
    - Individual students may be members of only one team.
- Teams must consist of at least two collegiate students, with a single student identified as team captain. There is no limit to team size.
- The team captain must be a U.S. citizen or permanent resident.
- The final submission must come from the team captain's HeroX account.
- Teams must declare, and keep consistent, their team's name throughout the competition.
- The team may have nonstudent team members or advisors who provide input and guidance and support the development of the idea, but only students may present to judges. Students must be a majority of the team makeup.
- Expert reviewers, competition administrator staff, DOE national lab employees, and DOE employees are ineligible to compete.
- Immediate family members of DOE employees and NREL prize administrators are ineligible to compete.
- To be eligible to compete for the national prizes, the team must be selected as a finalist.
- By uploading a submission package, the team self-certifies that it is compliant with the eligibility requirements. If the competition administrator becomes aware that a team or individual is not eligible, that team may be disqualified from competition.
- This prize competition is expected to positively impact U.S. economic competitiveness. Participation in a foreign government talent recruitment program[3] could conflict with this objective by resulting in unauthorized transfer of scientific and technical information to foreign government entities. Therefore, individuals participating in foreign government talent

[3] A foreign government talent recruitment program is defined as an effort directly or indirectly organized, managed, or funded by a foreign government to recruit science and technology professionals or students (regardless of citizenship or national origin, and whether having a full-time or part-time position). Some foreign government-sponsored talent recruitment programs operate with the intent to import or otherwise acquire from abroad, sometimes through illicit means, proprietary technology or software, unpublished data and methods, and intellectual property to further the military modernization goals and/or economic goals of a foreign government. Many, but not all, programs aim to incentivize the targeted individual to physically relocate to the foreign state for the above purpose. Some programs allow for or encourage continued employment at U.S. research facilities or receipt of federal research funds while concurrently working at and/or receiving compensation from a foreign institution, and some direct participants not to disclose their participation to U.S. entities. Compensation could take many forms, including cash, research funding, complimentary foreign travel, honorific titles, career advancement opportunities, promised future compensation, or other types of remuneration or consideration, including in-kind compensation.

recruitment programs of foreign countries of risk are not eligible to compete. Further, teams that include individuals participating in foreign government talent recruitment programs of foreign countries of risk[4] are not eligible to compete.

- Entities and individuals publicly banned from doing business with the U.S. government, such as entities and individuals debarred, suspended, or otherwise excluded from or ineligible for participating in federal programs, are not eligible to compete.
- To be eligible, an individual authorized to represent the competitor must agree to and sign the following statement upon registration with HeroX:

  I am providing this submission package as part of my participation in this prize. I understand that the information contained in this submission will be relied on by the federal government to determine whether to issue a prize to the named competitor. I certify under penalty of perjury that the named competitor meets the eligibility requirements for this prize competition and complies with all other rules contained in the official rules document. I further represent that the information contained in the submission is true and contains no misrepresentations. I understand false statements or misrepresentations to the federal government may result in civil and/or criminal penalties under 18 U.S.C. § 1001 and § 287, and 31 U.S.C. §§ 3729-3733 and 3801-3812.

8.6 Prizes To Win

In addition to the outlined prizes below, an introductory email *may* be sent—at the discretion of DOE—to one or more relevant accelerators or incubators to introduce the student team members, providing the possibility of future collaboration. This can occur for student teams in any phase.

Explore Phase

Regional Finalists: These teams will be awarded $5,000 and invited to the Refine and Pitch phases. Up to $75,000 total will be awarded to regional finalists.

Technology Bonus Prize Finalists: These teams will be awarded $5,000 each and invited to the Refine and Pitch phases.

National Lab IP Licensing Bonus Prize Finalist: This team will be awarded $5,000 and invited to the Refine and Pitch phases.

Undergraduate-Only Team Bonus Prize Semifinalists and Finalist: This team will be awarded $5,000 and invited to the Refine and Pitch phases.

Refine Phase

There will not be prizes awarded as part of this phase.

[4] Currently, the list of countries of risk includes Russia, Iran, North Korea, and China. This list is subject to change.

Pitch Phase

At the conclusion of the Pitch Phase, DOE will award three national prizes and several bonus prizes to student teams.

National Prizes: The national first-place winner will be awarded $50,000, the national second-place winner will be awarded $35,000, and the national third-place winner will be awarded $25,000. A total of $110,000 in national prizes will be awarded.

Technology Bonus Prizes: Each Technology Bonus Prize winner will be awarded $20,000. The focus areas of each Technology Bonus Prize are provided in Table 6.

National Lab IP Licensing Bonus Prize: One National Lab IP Licensing Bonus Prize winner may be selected and awarded $20,000 by OTT. The focus area of the National Lab IP Licensing Bonus Prize is provided in Table 6.

Undergraduate-Only Team Bonus Prize: One winner of the Undergraduate-Only Team Bonus Prize may be identified and awarded by OTT. The winning team will be awarded $20,000. The focus area of the Undergraduate-Only Team Bonus Prize is provided in Table 6.

A single competing student team may win a national prize and one or more bonus prizes, a single prize in either category, or no prize at all.

8.7 What Students Submit

Registration

- A 200-word written summary addressing the energy technology to be leveraged and the business opportunity
- (Optional) A preliminary slide deck that summarizes the team's business plan, including the suggested content identified in Table 2
- A team name that will remain consistent throughout the competition
- A completed registration entry form on HeroX, including answers to all required questions.

Explore Phase

- A 200-word written summary addressing the energy technology to be leveraged and the business opportunity
- A slide deck that summarizes the team's business plan, including the suggested content identified in **Table 4** and optionally in **Table 6**
- A live (not recorded), virtual pitch to judges, 5 minutes in length, and participation in a 3-minute Q&A session with judges
- A completed Explore Phase entry form on HeroX that includes answers to all required questions.

Refine Phase

There will be nothing to submit as part of this phase.

Pitch Phase

- A written business plan addressing the suggested content identified in Table 8, up to 10 pages in length
- A recorded video explaining the technology to be leveraged and the business opportunity, up to 7 minutes in length
- A slide deck that summarizes the team's business plan, including the suggested content identified in Table 8
- A live (in-person) pitch to judges, approximately 5–10 minutes in length, to be determined in collaboration with the national event host and defined in a future rules update.

8.8 How Explore Phase Student Teams Are Determined

Eligibility Review

The prize administrator screens all completed registrations for eligibility. The prize administrator will review eligible submissions according to the evaluation criteria described in this document and will make the final selection of competing teams. Competing teams will then be assigned to a regional convener Explore Event as deemed appropriate by the prize administrator.

How We Score Team Registrations

The prize administrator will individually evaluate all eligible registration submissions and written statements given in **Table 2** for each submission's region using the scoring scale shown in Table 1.

Table 1. Scoring Scale

1	2	3	4	5	6
Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree

Registration Submission Criteria

The prize administrator will evaluate the eligible teams using the criteria provided in Table 2. Teams will be evaluated based on the extent to which the registration submission aligns with the criteria statements.

Table 2. Registration Submission Criteria

Registration Submission Criteria	
Suggested questions to address in content:	**Criteria:**
• What is the energy technology to be leveraged? • Who will buy the product or service, and why do they need the product or service? • Who will benefit should this business succeed? • What role will this business play in the energy transition?	• The team understands their technology of choice and has evaluated the relevant market, outlined a vision for the role the business could play in an equitable energy transition, and considered what would be necessary to achieve success.

Based on these review criteria, the prize administrator will invite selected teams to compete in each regional convener's Explore Event. As indicated in the Additional Terms and Conditions (Appendix A), geographic diversity may be considered as a selection criterion for invitation to compete in the Explore Phase events. These teams will then be asked to provide the submission materials required for the Explore Phase. During the Explore Phase, teams will present their business plans to regional judges as part of a live event held virtually.

8.9 How Explore Phase Student Finalists Are Determined

Each regional convener will identify and secure a panel of judges to evaluate the Explore Phase presentations. Winners will be announced as part of each Explore Event, and within 30 days following the announcement, the prize administrator will work with winners to collect the necessary information to distribute cash prizes.

How Regional Judges Score the Explore Phase

A panel of judges, chosen independently by regional conveners, will evaluate the teams using the statements given in Table 4 and Table 6, based on the presentation given by each team as part of a live event held virtually. Immediately following the conclusion of the Explore Phase presentations, judges will meet to determine which teams will be selected as regional finalists. Scores will not be shared with any of the teams. Only the regional finalists and semifinalists will be announced. Semifinalists will be identified by combining the eligibility criteria with the same evaluation criteria and process used for identifying regional finalists. Each bullet listed in the Explore Phase criteria will receive a score from 1–6. Teams will be judged based on the extent to which the judging panel agrees with the criteria according to the scale shown in Table 3.

Table 3. Scoring Scale

1	2	3	4	5	6
Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree

Explore Phase Content and Criteria

For the Explore Phase, teams will present an initial business idea that leverages one or more national lab-developed or other emerging energy technologies. The business idea should be developed independently by students. As mentioned previously, teams will be given 5 minutes to present their technology and business plan, followed by 3 minutes of Q&A with the judges. The team should have a clear understanding of the technology and its commercialization potential, the existing market, and a plan for commercializing their chosen technology. The judging panel will evaluate the teams using the criteria in Table 4 and Table 6.

A panel of expert judges will evaluate, score, and comment on each submission. The criteria have equal weight, and the final score from an individual judge for a submission package equals the sum of the scores for all the statements. All the judges' scores are then averaged for a final score for the submission package. The regional judging panel will consider individual scores when selecting the finalist from their region's Explore Event. In addition to the finalist from each Explore Event, a semifinalist for the Undergraduate-Only Team Bonus Prize may be identified from each Explore Event.

This prize seeks to encourage inclusivity and diversity,[5] commercialization of national lab technology, and the pursuit of a broad mix of technologies. Before making the final awards, judges will assess the portfolio against these dimensions. The final determination of winners by the prize administrator will consider reviewer scores, team presentation performance, reviewer deliberation, and the program policy factors listed in Appendix A – Additional Terms and Conditions. Winners are not determined based on the likelihood that the presenting team will implement the business plan or on the underlying technology, but rather on the quality and innovativeness of the plan itself, should a qualified team of individuals attempt to execute the business plan.

[5] Executive Order 14035 defines the term ''diversity'' as the practice of including the many communities, identities, races, ethnicities, backgrounds, abilities, cultures, and beliefs of the American people, including underserved communities.

Table 4. Explore Phase Content and Criteria

1. Technology Identification	
Suggested questions to address in content: • What is the energy technology to be leveraged?	**Criteria:** • The team deeply understands their technology of choice and has explained it clearly.
2. Market Assessment	
Suggested question(s) to address in content: • Who will buy the product or service, and why do they need it? • Who is currently serving this market and how? • What unmet market need will this technology help to fill?	**Criteria:** • The team understands the relevant market, potential competitors, and customers for their identified technology, including what pain points this technology might solve for the customer.
3. Economic Feasibility Analysis	
Suggested questions to address in content: • What might customers be willing to pay for this product or service? • How much might it cost the business to produce this product or service?	**Criteria:** • The team's analysis is credible and has identified what the customer is willing to pay for the product, thoroughly justifying their product/service's cost of production and understanding its implication on their profit margins.
4. Potential Impact	
Suggested questions to address in content: • Who will benefit should this business succeed? • What role will this business play in the energy transition?	**Criteria:** • The proposed business includes thoughtful and specific activities that advance energy and environmental justice and equity and inclusion, including for members of disadvantaged communities[6] (e.g., those that are affected by persistent poverty or job loss due to the energy transition), and the team

[6] Disadvantaged communities are those experiencing one or more of the following: low income, high and/or persistent poverty, high unemployment and underemployment, racial and ethnic residential segregation (particularly where the segregation stems from discrimination by government entities), linguistic isolation, high housing cost burden and substandard housing, distressed neighborhoods, high transportation cost burden and/or low transportation access, disproportionate environmental stressor burden and high cumulative impacts, limited water and sanitation access and affordability, disproportionate impacts from climate change, high energy cost burden and low energy access, jobs lost through the energy transition, and lack of access to healthcare.

	has outlined a realistic vision for the role they see this business playing in the energy transition.
5. Overall Business Plan	
Suggested questions to address in content: • How is success defined? • What people and resources are needed to put this plan into action?	**Criteria:** • The team's definition of success is reasonable, and the business, if implemented as proposed, would be likely to achieve the specified metrics of success, including personnel, equipment or other assets, and partnerships necessary.

8.10 How Bonus Prize Finalists and Winners Are Determined

Finalists: The prize administrator screens all completed Explore Phase submissions and, in consultation with DOE, assigns eligibility for each bonus prize to each entry. The prize administrator will then assign expert reviewers to independently score the content of each submission, including a recording of the presentation provided by the team as part of an Explore Event. Expert reviewers will review submissions according to the criteria described in this document. A representative of OTT will make the final selection of finalists for the bonus prizes based on the expert reviewers' scores and comments as well as the program policy factors described in these rules.

Winners: The prize administrator will assign expert reviewers to independently score the content of each submission, including the pitch given by the team as part of the National Pitch Event. Expert reviewers will review submissions according to the evaluation criteria described in this document. A representative of OTT will make the final selection of winners for the bonus prizes based on the reviewers' scores and comments as well as the program policy factors described in these rules.

How Bonus Prizes Are Scored

Expert reviewers selected by the prize administrator and OTT will individually evaluate all team pitches based on the pitch content and the written submission given in **Table 6**. Judges will meet after the Pitch Phase presentations to discuss the teams with high average scores, update their scores to reflect all the information available, and determine the winner(s).

Table 5. Scoring Scale

1	2	3	4	5	6
Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree

Bonus Prize Challenge and Criteria

For the bonus prizes, teams present a comprehensive business plan that leverages a national lab-developed or other promising energy technology. The judging panel will evaluate the teams using the evaluation criteria provided in Table 6 and scoring scale in Table 5. Teams will be judged based on the extent to which the judging panel agrees with the criteria.

Teams are encouraged to review the content and references provided by each program office offering a bonus prize in Appendix B of these rules[7]. The rules will be updated with Appendix B as additional prizes are confirmed. These summaries of the program office's area of interest and the related industry landscape may provide valuable insights to teams as they identify potential technologies to leverage and possible business opportunities.

Table 6. Bonus Prize Challenge and Criteria

OTT National Lab IP Licensing Bonus Prize	
Prize description:	**Criteria:**
Leverage the OTT's LPS to identify a national lab-developed technology available for licensing, and propose an innovative business model to commercialize the technology.	The entry demonstrates a clear understanding of the technology listed on OTT's LPS as well as its market potential and presents an innovative business model to significantly increase its adoption.
OTT Undergraduate-Only Team Bonus Prize	
Prize description:	**Criteria:**
As a team made up of only undergraduate students, including those pursuing an associate degree or a bachelor's degree, demonstrates and proposes an innovative business model for an emerging energy technology.	The eligible team presents an entry that demonstrates a clear understanding of the technology and its market potential and presents an innovative business model to significantly increase its adoption.
Geothermal Technologies Office Technology Bonus Prize	
Prize description:	**Criteria:**
Develop innovative business models to increase the adoption of geothermal technologies that address key exploration and operational challenges.	The entry demonstrates a clear understanding of the technology and market potential for geothermal technologies and presents an innovative business model to significantly address

[7] Appendix B will be added to this Rules document at a later time.

	key exploration and operational challenges while engaging a diverse and inclusive cohort.
Office of Nuclear Energy Technology Bonus Prize	
Prize description: Develop innovative business models to accelerate the development and deployment of advanced technologies supporting advanced reactors and fuel cycle technologies.	**Criteria:** The entry demonstrates an understanding of the chosen technology and its market potential, and the path to improved technology and/or enhanced adoption is well-articulated and reasonable.
Office of Electricity Grid-Enhancing Technologies (GETs) Technology Bonus Prize	
Prize description: Develop innovative business models to increase the adoption of GETs to benefit the U.S. power grid.	**Criteria:** The presentation emphasizes a clear understanding of GETs and the market potential for GETs to be implemented by various utility entities in a way that decreases congestion and reduces electricity costs.
Office of Electricity Long-Duration Energy Storage (LDES) Technology Bonus Prize	
Prize description: Develop innovative business models to propose an LDES technology solution, explain the technology's use case, and address market challenges to enable greater adoption of LDES in the U.S. power system. Innovative energy storage use cases are encouraged.	**Criteria:** The presentation outlines a clear understanding of LDES technologies and the LDES market space, explores barriers to greater LDES adoption, and proposes an innovative business plan to accelerate LDES deployment for a defined, innovative use case.
Solar Energy Technologies Office Technology Bonus Prize	
Prize description: Develop innovative business models to improve the performance, affordability, reliability, and value of solar technologies in the U.S. grid and to tackle emerging challenges in the solar industry.	**Criteria:** The entry demonstrates a clear understanding of the technology and the market potential for optimizing the performance and/or reducing the costs associated with components, installation, and operation of solar energy systems and presents an innovative business model to significantly increase the technology's adoption.

Hydrogen and Fuel Cell Technologies Office Technology Bonus Prize	
Prize description:	**Criteria:**
Develop innovative business models to identify mechanisms for commercially viable hydrogen technologies to achieve market liftoff, supporting domestic competitiveness, job creation, and achievement of climate goals.	The entry demonstrates a clear understanding of the technology and the market potential for hydrogen technologies and presents an innovative business model to significantly increase the technology's adoption.
Office of Manufacturing and Energy Supply Chains Technology Bonus Prize	
Prize description:	**Criteria:**
Develop an innovative business model or commercialization plan to increase the adoption of industrial decarbonization improvements at small- and medium-sized manufacturers.	The entry effectively demonstrates a new approach that showcases and solves a key barrier to the implementation of industrial decarbonization improvements for small- and medium-sized manufacturers.
Water Power Technologies Office Technology Bonus Prize	
Prize description:	**Criteria:**
Develop innovative business models for a novel hydropower or marine technology of your choice that tackles emerging challenges in the water power industry and aims to improve the performance, affordability, reliability, and value of hydropower or marine energy in the United States.	The entry demonstrates an understanding of the chosen technology and its market potential, and the path to improving the technology and/or increasing its adoption is well-articulated and reasonable. The team demonstrates a commitment to diversity, equity, inclusion, and justice.

8.11 How Pitch Phase Student Winners Are Determined

The prize administrator screens all completed submissions and ensures compliance with all requirements in these rules and, in consultation with DOE, identifies and tasks expert reviewers with independently scoring the content of each submission. Reviewers will review submissions according to the evaluation criteria described in this document. DOE, at its sole discretion, may decide to hold short interviews with a subset of the competitors. These interviews will be held prior to the announcement of the winners. Interview attendance is not required, and interviews are not an indication of winning. The Pitch Phase final judge, a representative of OTT, will make the final selection of winners based on the Pitch Phase judges' scores and comments as well as the program policy factors described in these rules. Winners will be announced as part of the Pitch Event.

How the Pitch Phase Is Scored

A panel of expert reviewers will watch each team's pitch and will read, score, and comment on each submission. Each bullet listed in the Pitch Phase criteria (Table 8) receives a score from 1–6, as indicated in Table 7. The bullets have equal weight, so categories that have more review criteria have a greater influence on the final score. The score from an individual reviewer for a submission package equals the sum of the scores for all the bullets. All reviewers' scores are then averaged for a final reviewer score for the submission package. The Pitch Phase final judge will consider reviewer scores when deciding the winners.

This prize seeks to encourage inclusivity and diversity, commercialization of national laboratory technology, and the pursuit of a broad mix of technologies. Before making the final selections/awards, reviewers will assess the portfolio against these dimensions. The final determination of winners will consider reviewer scores, team presentation performance, reviewer deliberation, and the program policy factors listed in Appendix A – Additional Terms and Conditions.

Table 7. Scoring Scale

1	2	3	4	5	6
Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree

Pitch Phase Content and Criteria

For the Pitch Phase, teams submit a comprehensive business plan that leverages a national lab-developed or other promising energy technology and a prerecorded pitch. Successful teams will demonstrate a clear understanding of the technology and its commercialization potential, the existing relevant market, and a convincing plan for commercialization. Pitch Phase judges will review the business plan and prerecorded pitch and provide up to three statements of concern or questions to each team at least 48 hours prior to the deadline to submit the presentation file. Teams can then choose to address those statements in their live pitch. The judging panel will evaluate the teams using the criteria in Table 8. Teams will be judged based on the extent to which the judging panel agrees with the evaluation criteria. Winners are not determined based on the likelihood that the presenting team will implement the business plan or on the underlying technology, but rather on the quality and innovativeness of the plan itself, should a qualified team of individuals attempt to execute the business plan.

Table 8. Pitch Phase Content and Criteria

1. Technology Identification	
Suggested question(s) to address in content:	**Criteria:**
• What is the emerging energy technology to be leveraged in the proposed business?	• The team deeply understands their technology of choice and has explained it clearly.

2. Market Assessment	
Suggested question(s) to address in content: • Who will buy the product or service, and why do they need the product or service? • Who is currently serving this market? • How can this technology help a business better serve the market? • How will the business find and secure customers?	**Criteria:** • The team deeply understands the range of potential customers for their identified technology, including what pain points this technology might solve for the customer. • The team has evaluated the entire relevant market of potential competitors. • The team has clearly identified a strategy to serve a sizable unmet market need. • The team has developed a comprehensive strategy for finding and securing customers.
3. Economic Feasibility Analysis	
Suggested question(s) to address in content: • What are customers willing to pay for this product or service? • How much will it cost the business to produce this product or service? • How will the business become financially sustainable?	**Criteria:** • The team has thoroughly justified what the customer is willing to pay (e.g., via a detailed analysis of competitor offerings and what people pay for them today). • The team deeply understands the steps necessary to produce and deploy the product/service and has thoroughly justified its cost of production. • The team has a well-justified estimate of how much money they need to raise to get the project off the ground and has presented a realistic projection of when and how the company will attain positive cash flow and a sufficient return on investment.
4. Potential Impact	
Suggested question(s) to address in content: • Who will benefit should this business succeed? • What role will this business play in the energy transition?	**Criteria:** • The proposed business includes thoughtful and specific provisions for advancing equity and inclusion, including for members of disadvantaged communities (e.g., those that are affected by persistent poverty or job loss due to the energy transition). (See footnote 3 on page 16.) • The team has clearly outlined a realistic vision for the role—however large or small—

	they see this business playing in the energy transition.
5. Overall Business Plan	
Suggested question(s) to address in content: • How is success defined? • What people and resources are needed to put this plan into action?	**Criteria:** • The team's definition of success is reasonable, and the business, if implemented as proposed, would be likely to meet the specified metrics of success. • The team has comprehensively identified what personnel, equipment or other assets, and partnerships are necessary to achieve success, as they have defined it.

9 Faculty Track

The Faculty Track seeks applications from faculty members interested in incorporating or expanding energy technology commercialization and entrepreneurship topics into their institution's educational activities. The Faculty Track consists of three phases—the Explore Phase, the Develop Phase, and the Implementation Phase.

DOE recognizes that some faculty may already have significant experience and therefore sufficient support to successfully implement their plan for the 2025/2026 academic year, whereas others may require more time to develop and implement their educational activities. Both approaches are welcome. DOE seeks thoughtful educational activities with a high likelihood of effective and impactful implementation that expand technology commercialization and entrepreneurship education across a diverse[8] student population.

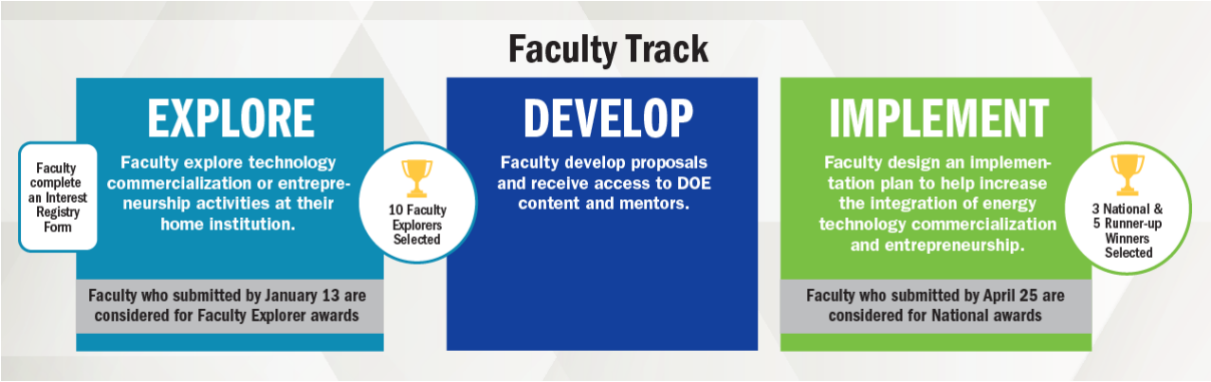
Examples of incorporation and expansion of proposed educational activities include (but are not limited to):

- The integration of new key educational modules into an existing course(s)/program(s)
- The development of a new course(s)/program(s)
- The creation of an accelerator or incubator program
- Creative co-teaching situations involving faculty from different disciplines
- Creative distance learning modules/course(s)
- The creation of new student-centered materials that actively engage learners in the classroom
- The development of new content presentation materials (for in-person or online learning) or any other approach determined to be impactful by the faculty and supported by their department/administration.

The content provided by faculty through their submissions is expected to inform a toolkit to be developed by OTT following the conclusion of this competition. The toolkit can potentially help other faculty across the nation build entrepreneurship and commercialization activities at their institutions.

[8] Executive Order 14035 defines the term ''diversity'' as the practice of including the many communities, identities, races, ethnicities, backgrounds, abilities, cultures, and beliefs of the American people, including underserved communities.

Figure 2



9.1 Interest Registry (Optional)

Through the optional Interest Registry, faculty who plan to apply to be a competitor for the Implementation Phase will submit their information via the Interest Registry Form (accessible from the HeroX platform). Submissions will be accepted on a rolling basis and will consist of the faculty's name, email, and name of their institution. This will allow DOE to communicate with faculty during the Develop and Implementation phases and provide resources to interested faculty. As an example, a webinar will be hosted to share DOE resources that are available; those who have completed the Interest Registry form will be invited to such events.

9.2 Explore Phase

Faculty who submit an Explore Phase entry on HeroX and meet eligibility requirements become faculty competitors and are given free access to several resources to help them refine their ideas and learning materials.

The Explore Phase is intended to support participants who are excited to implement entrepreneurship and/or commercialization activities but may not have deep integration of energy technology commercialization or entrepreneurship activities in their home institution. As such, these participants may need the resources provided by the Explore Phase to create an implementation plan.

Faculty (or faculty teams) apply to the Explore Phase by completing the registration entry form on the HeroX platform. The focus of the Explore Phase is identifying faculty with promising interests, ideas, and/or materials who are likely to effectively develop, refine, and implement high-quality and impactful activities for a student population that does not currently have access to these kinds of opportunities.

Participants must also demonstrate that they have preliminary interest in and support for their proposal from institutional leadership (e.g., a department chair, associate dean, or dean). For the Explore Phase, competitors do not need to have any current integration of energy technology commercialization or entrepreneurship in their institution's activities.

Faculty Explorers: Up to 10 faculty (or faculty teams) will be identified as Faculty Explorers from among the Explore Phase submissions received by the deadline. All faculty competitors, including Faculty Explorers, are eligible to compete in the Implementation Phase.

9.3 Develop Phase

In the Develop Phase, all faculty who submitted their information to the Interest Registry and all faculty competitors identified as part of the Explore Phase, including those identified as Faculty Explorers, will be provided with mentorship and continued free access to DOE resources.

All faculty competitors will be given access to a mentor from DOE. Mentors will give competitors insights and feedback on their plan in preparation for their implementation plan submission.

Faculty competitors are encouraged to explore all DOE OTT resources, including the ARL framework, the LPS, Pathways to Commercial Liftoff reports, and other materials. By the end of the Develop Phase, all competitors are highly encouraged to incorporate the ARL concepts and framework into their proposals in a logical and intentional manner for the educational benefit of the students engaged with the activities. However, proposals can be submitted with alternative frameworks or approaches.

9.4 Implementation Phase

Any eligible faculty member may submit an implementation plan on or before April 5, 2024. Selected winners will be announced by the deadline indicated in the rules. Faculty are not expected to present in person at the student EnergyTech UP National Event, but may attend if interested.

Proposals should include how this topic could be integrated into student activities along with a letter of support signed by the relevant department chair or administrator, such as an associate dean, dean, provost, or vice provost.

The implementation plan submitted as part of this phase should include a timeline for implementation at the competitor's home institution. Competitors should indicate whether implementation is possible in the 2024/2025 academic year.

Faculty Winner: Up to eight faculty competitor teams will be identified as winners. While Explore Phase Faculty Explorers will be encouraged to advance to the Develop and Implementation phases, any eligible faculty member who submits a complete package by the Implementation Phase deadline is eligible to be identified as a faculty winner.

Additional program information is available at www.energy.gov/energytechup. Questions should be submitted to ott.energytechup@nrel.gov.

9.5 Faculty Eligibility

- All participating faculty must be employed by an accredited collegiate institution.
- For the purposes of this competition, "collegiate institution" refers to a school of postsecondary or higher education, including but not limited to accredited trade schools, community colleges, colleges, universities, and graduate schools.
    - Faculty will self-certify their eligibility as part of the registration for the competition.

    - Faculty may compete as a single-individual team or as a member of a team with multiple faculty members.
    - Teams with faculty from multiple collegiate institutions are allowed, and multiple faculty teams from the same collegiate institution are allowed.
    - Faculty may be full-time or part-time employees of their institution.
- All faculty teams must identify a single team captain.
- All faculty competing as individuals, and all faculty team captains, must be U.S. citizens or permanent residents. There is no limit to team size.
- The final submission must come from the faculty competing as an individual, or in the case of a team, from the team captain's HeroX account.
- A team may have nonfaculty team members or advisors who provide input and guidance and support the development of the idea.
- Expert reviewers, competition administrator staff, national laboratory employees, and DOE employees are ineligible to compete.
- Immediate family members of DOE employees and NREL prize administrators are ineligible to compete.
- The faculty member (or faculty team) does not need to have been selected as a Faculty Explorer to be eligible to compete for the Implementation Phase faculty prizes.
- By uploading a submission package, the faculty member (or faculty team) self-certifies that they are compliant with the eligibility requirements. If the prize administrator becomes aware that a team or individual is not eligible, that team may be disqualified from competition.
- This prize competition is expected to positively impact U.S. economic competitiveness. Participation in a foreign government talent recruitment program[9] could conflict with this objective by resulting in unauthorized transfer of scientific and technical information to foreign government entities. Therefore, individuals participating in foreign government talent recruitment programs of foreign countries of risk are not eligible to compete. Further, teams that include individuals participating in foreign government talent recruitment programs of foreign countries of risk[10] are not eligible to compete.
- Entities and individuals publicly banned from doing business with the U.S. government, such as entities and individuals debarred, suspended, or otherwise excluded from or ineligible for participating in federal programs, are not eligible to compete.
- To be eligible, an individual authorized to represent the competitor must agree to and sign the following statement upon registration with HeroX:

  I am providing this submission package as part of my participation in this prize. I understand that the information contained in this submission will be relied on by the federal government

[9] A foreign government talent recruitment program is defined as an effort directly or indirectly organized, managed, or funded by a foreign government to recruit science and technology professionals or students (regardless of citizenship or national origin, and whether having a full-time or part-time position). Some foreign government-sponsored talent recruitment programs operate with the intent to import or otherwise acquire from abroad, sometimes through illicit means, proprietary technology or software, unpublished data and methods, and intellectual property to further the military modernization goals and/or economic goals of a foreign government. Many, but not all, programs aim to incentivize the targeted individual to physically relocate to the foreign state for the above purpose. Some programs allow for or encourage continued employment at U.S. research facilities or receipt of federal research funds while concurrently working at and/or receiving compensation from a foreign institution, and some direct participants not to disclose their participation to U.S. entities. Compensation could take many forms, including cash, research funding, complimentary foreign travel, honorific titles, career advancement opportunities, promised future compensation, or other types of remuneration or consideration, including in-kind compensation.

[10] Currently, the list of countries of risk includes Russia, Iran, North Korea, and China. This list is subject to change.

to determine whether to issue a prize to the named competitor. I certify under penalty of perjury that the named competitor meets the eligibility requirements for this prize competition and complies with all other rules contained in the official rules document. I further represent that the information contained in the submission is true and contains no misrepresentations. I understand false statements or misrepresentations to the federal government may result in civil and/or criminal penalties under 18 U.S.C. § 1001 and § 287, and 31 U.S.C. §§ 3729-3733 and 3801-3812.

9.6 Prizes To Win

Explore Phase

Faculty Explorer Prize: From the eligible entries submitted by the deadline, up to 10 faculty members or faculty teams will be selected as Faculty Explorers. These selected Faculty Explorer teams will be awarded $5,000 each and will be encouraged to continue to the Develop and Implementation phases. A maximum of $50,000 total will be awarded to Faculty Explorers. A letter will also be sent to their institution on behalf of DOE announcing the prize award.

At the conclusion of the Implementation Phase, DOE will award eight prizes.

Faculty Implementation Prize: The top three proposals will be awarded $25,000 for first place, $15,000 for second place, and $10,000 for third place. Five additional entries will be awarded $2,000 each as runners-up. A letter will also be sent to each winner's institution on behalf of DOE announcing the prize award.

9.7 What Faculty Submit

Interest Registry Form

- Name(s) of faculty
- Name of institution(s)
- Email(s) of faculty.

Explore Phase

- **A project title and short summary** of the proposal (no more than 250 words)
- **A single slide that summarizes the proposal** for integrating or expanding the topics of energy technology commercialization and entrepreneurship into the faculty's institution and the potential impact, should it succeed
- **A three-page written document** addressing the suggested content shown in Table 10
- **A completed entry form** on HeroX with answers to all required questions, including institutional demographics
- **Resume or CV** for faculty or faculty teams that includes a summary of experience with teaching entrepreneurship, business, energy, technology commercialization, technology transfer, licensing, or similar topics. Comprehensive prior experience is not required. This information is used to ensure that a diversity of perspectives are included in the program.

Implementation Phase

- **A project title and short description** of the proposal (no more than 350 words)
  An implementation plan *(up to 10 pages) addressing the suggested content shown in Table 12.*
- Submissions may include figures as appropriate.
- **Letter or letters of support** from department and/or institutional leadership supporting the proposal and the implementation plan
- **Resume or CV** that includes a summary of experience with teaching entrepreneurship, business, energy, technology commercialization, technology transfer, licensing, or similar topics. Comprehensive prior experience is not required. This information is used to ensure that a diversity of perspectives are included in the program.
- **A completed entry form** on HeroX including answers to all required questions, including institutional demographics.

9.8 How Faculty Explorers Are Determined

As part of their registration, faculty provide information about their current teaching activities and submit an initial proposal for how they will create opportunities for students to be exposed to energy technology commercialization and energy entrepreneurship activities. Proposals should articulate the realistic anticipated positive impact that incorporating the proposed activities is likely to have on the student population.

The prize administrator screens all completed Explore Phase submissions received by the deadline and, in consultation with DOE, assigns eligibility. The prize administrator will then assign expert reviewers to independently score the content of each submission.

Faculty Explorers will be announced by the deadline indicated in Section 3.2, and within 30 days following the announcement, the prize administrator will work with winners to collect the necessary information to distribute cash prizes.

How Judges Score the Faculty Explore Phase

A panel of judges will evaluate the faculty teams using the statements given in Table 10 based on the submissions received by the deadline. Following review of the submission packages, judges will meet to determine which teams will be selected as Faculty Explorers. Scores will not be shared with any of the teams. Each bullet listed in the Explore Phase evaluation criteria will receive a score from 1–6. Teams will be judged based on the extent to which the judging panel agrees with the criteria according to the scale shown in Table 9.

Table 9. Scoring Scale

1	2	3	4	5	6
Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree

Faculty Explore Phase Content and Criteria

For the Explore Phase, teams will indicate their interest, existing activities, and an initial proposal for the development and implementation of new educational activities related to energy technology commercialization and entrepreneurship. The judging panel will evaluate the teams using the criteria in Table 10.

A panel of expert judges will evaluate, score, and comment on each submission. The evaluation criteria have equal weight; the final score from an individual judge for a submission package equals the sum of the scores for all the statements. All judges' scores are then averaged for a final score for the submission package.

This prize seeks to encourage inclusivity and diversity, commercialization of DOE national lab technology, and the pursuit of a broad mix of approaches. Before making the final awards, judges will assess the proposals against these dimensions. The final determination of winners by the prize administrator will consider reviewer scores, reviewer deliberation, and program policy factors listed in Appendix A – Additional Terms and Conditions.

Table 10. Registration Submission Content and Criteria

Faculty Registration Submission Criteria for Explore Phase	
Suggested question(s) to address in content:	**Criteria:**
• Why are you applying to this program, and why do you believe that your proposed educational activities will benefit students and your home institution? • How do you see your proposed activities fitting into and complementing current program(s) and student pathways at your accredited institution? • What are the foreseen challenges of implementing your proposed activities into existing program(s) and student pathways within the department/division, and what is your plan for risk mitigation? • Describe the level of commitment from your department and leadership for developing and implementing your proposed educational activities.	• The faculty clearly articulated a credible interest, identified an unmet opportunity at their home institution for the proposed materials, and provided a convincing understanding of the likely benefit to students at their home institution. A vision for the role their plan could play in an equitable energy transition was evident. • The faculty articulated a clear understanding of the current program structure as well as the constraints and flexibility of student pathways leading to program/degree completion requirements. The response considered what would be necessary to achieve success, understood the learning objectives, and summarized the potential impact. • The faculty did not shy away from citing realistic challenges for the implementation of the proposed learning materials within the boundaries of existing course(s) and the department/division/program and described an appropriate risk mitigation plan. • The faculty secured and provided clear and convincing evidence of support from department and/or relevant academic leadership for the development and implementation of the proposed educational activities.

9.9 How Implementation Phase Faculty Winners Are Determined

The prize administrator screens all completed submissions and ensures compliance with all requirements in these rules and, in consultation with DOE, tasks expert reviewers with independently scoring the content of each submission. Expert reviewers will review submissions according to the evaluation criteria described in this document. DOE, at its sole discretion, may decide to hold short interviews with a subset of the competitors. These interviews will be held prior to the announcement of the winners. Interview attendance is not required, and interviews are not an indication of winning.

The Implementation Phase final judge, a representative of OTT, will make the final selection of winners based on the Implementation Phase expert reviewers' scores and comments as well as the program policy factors described in these rules. Winners will be announced as part of the National Pitch Event.

How the Implementation Phase Is Scored

A panel of expert reviewers will read, score, and comment on each submission. Each bullet listed in the Implementation Phase criteria receives a score from 1–6. The bullets have equal weight, so categories that have more review criteria have a greater influence on the final score. The score from an individual reviewer for a submission package equals the sum of the scores for all the bullets. All reviewers' scores are then averaged to determine the final score for the submission package. The Implementation Phase final judge will consider reviewer scores when deciding the winners.

This prize seeks to encourage inclusivity and diversity, commercialization of national laboratory technology, and the pursuit of a broad mix of approaches. Before making the final selections/awards, reviewers will assess the proposals against these dimensions. The final determination of winners will consider reviewer scores, reviewer deliberation, and program policy factors listed in Appendix A – Additional Terms and Conditions.

Table 11. Scoring Scale

1	2	3	4	5	6
Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree

Implementation Phase Content and Criteria

DOE is interested in learning how faculty can implement educational activities focused on energy technology commercialization and entrepreneurship at their institutions. For the Implementation Phase, faculty members (or faculty teams) submit a comprehensive implementation plan that leverages DOE resources provided in the Develop Phase. The evaluation criteria for the implementation plan are outlined in **Table *12***. Successful faculty or faculty teams will demonstrate a clear understanding of this opportunity, challenges, the extent of the institution's current learning opportunities, and a convincing plan for implementation. Submissions will be judged based on the extent to which the judging panel agrees with the criteria. Winners are determined based on the quality and innovativeness of the plan itself as well as the potential impact of implementation.

The content provided by faculty in the Implementation Phase is expected to inform a toolkit. The toolkit will be developed by DOE following the conclusion of this competition. The toolkit will be designed to help other faculty across the nation who are interested in building entrepreneurship and commercialization activities at their institutions.

Table 12. Faculty Implementation Phase Content and Criteria

1. Analysis of Need	
Suggested question(s) to address in content: • What are the current demographics of your institution? • What are the existing relevant activities, programs, and/or coursework related to commercialization and entrepreneurship? • What is the scope of the student body that you plan to include in these activities (e.g., graduate, undergraduate, departments or schools within your home institution)?	**Criteria:** • The response provides basic demographic information for the home institution. The response conveys an understanding of the academic landscape within and across the institution and demonstrates a clear understanding of current activities around commercialization and entrepreneurship.
2. Actionability	
Suggested question(s) to address in content: • What are the educational activities that you are proposing, and how will they support the learnings of students in commercialization and entrepreneurship? • What resources do you need to implement this proposed activity, and do you have them? • How could DOE tools like ARLs, Pathways to Commercial Liftoff, or LPS be implemented in your proposal?	**Criteria:** • The response provided high-quality and complete content that is likely to be implementable, impactful, and sustainable at the faculty's own institution. The submitted material was aligned with expected learning objectives and could also be valuable to other U.S. collegiate institutions considering similar efforts. • The materials clearly and meaningfully incorporated ARLs into the content. They also indicated relevant connections to the Pathways to Commercial Liftoff reports and/or other DOE resources.
3. Support	
Suggested question(s) to address in content: • What hurdles need to be cleared for the idea to be implemented (e.g., for a new course, is there an internal committee that needs to approve the course before it is part of the official school course offerings)?	**Criteria:** • The submission has provided clarity on the potential institutional hurdles that need to be overcome for implementation.

• What support has been established for the proposal as presented, including letters of support to help overcome any hurdles?	• There is clear and credible support from institutional leadership for this proposal and where applicable, support to overcome any hurdles. The submitted materials have provided evidence that their proposals are in alignment with institutional priorities.
4. Potential Impact	
Suggested question(s) to address in content: • How is success defined? • How will success be measured? • How will students benefit if this proposal were to succeed? • Could other institutions leverage what you have developed and if so, how?	**Criteria:** • The proposed plan clearly addresses the learning opportunities and needs of its intended student population. • The project provided high-quality and complete content that is likely to be incorporated and valuable for sustained use at the faculty's own institution. • Additional degrees of success could be deemed likely through broader impacts if the project materials could be disseminated and implemented at other institutions considering similar efforts.
5. Overall Implementation Plan	
Suggested question(s) to address in content: • What is the timeline, and what are the rough stages of implementation? • How will this be implemented? What resources do you need for implementation? Do you have them? If not, what is your plan for obtaining the resources that you need? • How can DOE best support the program in future years (e.g., guest speakers, judges for prizes)?	**Criteria:** • There is sufficient information to enable successful implementation, a clear timeline for implementation, and clarity on the resources needed to successfully implement the proposal at the institution. Resources exist or there are ideas on how to get those resources and ideas on how DOE can be involved are included.

Appendix A – Additional Terms and Conditions

Universal Contest Requirements

Your submission for EnergyTech UP is subject to the following terms and conditions:

- Faculty competitors agree to release their submission package under a Creative Commons Attribution 4.0 International License (see https://creativecommons.org/licenses/by/4.0/).
- You must include all the required submission elements. The prize administrator may disqualify your submission after an initial screening if you fail to provide all required submission elements. Competitors may be given an opportunity to rectify submission errors due to technical challenges.
- Your submission must be in English and in a format readable by Adobe Acrobat Reader. Scanned handwritten submissions will be disqualified.
- Submissions and competitors will be disqualified if any engagement with EnergyTech UP—including but not limited to the submission, the HeroX forum, or e-mails to the competition administrator—contains any matter that, at the sole discretion of DOE or the prize administrators, is indecent, obscene, defamatory, libelous, lacking in professionalism, or demonstrates a lack of respect for people or life on this planet.
- If you click "Accept" on the HeroX platform and proceed to register for the competition described in this document, these rules will form a valid and binding agreement between you and the U.S. Department of Energy. This agreement is in addition to the existing HeroX Terms of Use for all purposes relating to these contests. You should print and keep a copy of these rules. These provisions only apply to the contests described here and no other contests on the HeroX platform or anywhere else. To the extent that these rules conflict with the HeroX Terms of Use, these rules shall govern.
- The competition administrator, when feasible, may give competitors an opportunity to fix nonsubstantive mistakes or errors in their submission packages.
- Reviewers will review submissions according to the evaluation criteria described in this document. Expert reviewers may not (a) have personal or financial interests in, or be an employee, officer, director, or agent of any entity that is a registered competitor in the prize; or (b) have a familial or financial relationship with an individual who is a registered competitor. These judge requirements apply to all reviews across all regions.
- As part of your submission to this prize, you will be required to sign the following statement:

  I am providing this submission package as part of my participation in this prize. I understand that the information contained in this submission will be relied on by the federal government to determine whether to issue a prize to the named competitor. I certify under penalty of perjury that the named competitor meets the eligibility requirements for this prize competition and complies with all other rules contained in the official rules document. I further represent that the information contained in the submission is true and contains no misrepresentations. I understand false statements or misrepresentations to the federal government may result in civil and/or criminal penalties under 18 U.S.C. § 1001 and § 287, and 31 U.S.C. §§ 3729-3733 and 3801-3812.

Program Policy Factors

While the scores of the expert reviewers will be carefully considered, it is the role of the prize administrator to maximize the impact of contest funds. Some factors outside the control of competitors and beyond the independent expert reviewer scope of review may need to be considered to accomplish this goal. The following is a list of such factors. In addition to the reviewers' scores, the below program policy factors may be considered in determining winners.

- Geographic diversity and potential economic impact of projects in a variety of markets.
- Whether the proposed business plan ideas have received an investment of $200,000 or more and/or have won a pitch competition in the amount of $20,000 or more. The purpose of this contest is to foster the development of new ideas.
- Whether the use of additional DOE funds and provided resources continue to be nonduplicative and compatible with the stated goals of this program and DOE's mission generally.
- The degree to which the submission exhibits technological or programmatic diversity when compared to the existing DOE project portfolio and other competitors.
- The level of industry involvement and demonstrated ability to accelerate commercialization and overcome key market barriers.
- The degree to which the submission is likely to lead to increased employment and manufacturing in the United States or provide other economic benefit to U.S. taxpayers.
- The degree to which the submission will accelerate transformational technological, financial, or workforce advances in areas that industry by itself is not likely to undertake because of technical or financial uncertainty.
- The degree to which the submission supports complementary DOE efforts or projects, which, when taken together, will best achieve the research goals and objectives.
- The degree to which the submission expands DOE's funding to new competitors and recipients that have not been supported by DOE in the past.
- The degree to which the submission exhibits team member diversity and the inclusion of underrepresented groups, including but not limited to graduates and students of historically black colleges and universities (HBCUs) and other minority-serving institutions (MSIs) or members operating within Qualified Opportunity Zones or other underserved communities.
- The degree to which the submission addresses one or some of the Justice40 priorities.
- The degree to which the submission enables new and expanding market segments.
- Whether the project promotes increased coordination with nongovernmental entities for the demonstration of technologies and research applications to facilitate technology transfer.

Verification for Payments

The prize administrator will verify the identity and the role of the participants potentially qualified to receive the prizes. Receiving a prize payment is contingent upon fulfilling all requirements contained herein. The prize administrator will notify winning competitors using their provided email contact information after the date that results are announced. Within 30 days of the date the notice is sent, each competitor (or parent/guardian if under 18 years of age) will be required to sign and return to the prize administrator a completed NREL Request for ACH Banking Information form and a completed W-9 form (https://www.irs.gov/pub/irs-pdf/fw9.pdf). At the sole discretion of the prize administrator, a winning competitor will be disqualified from the competition and receive no prize

funds if: (i) the person/entity cannot be contacted, (ii) the person/entity fails to sign and return the required documentation within the required time period, (iii) the notification is returned as undeliverable, or (iv) the submission or person/entity is disqualified for any other reason.

Teams and Single-Entity Awards

The prize administrator will award a single dollar amount to the designated primary submitter, whether the submitter represents a single entity or multiple entities. The primary submitter is solely responsible for allocating any prize funds among its member competitors as they deem appropriate. The prize administrator will not arbitrate, intervene, advise on, or resolve any matters between team members or between teams.

Submission Rights

By making a submission, and thereby consenting to the rules of the contest as described in this document, a competitor is granting to DOE, the prize administrator, and any other third parties supporting DOE in the contest a license to display publicly and use all parts of any submission for any other government purpose. This license includes posting or linking to any portion of the submission made via the competition administrator or HeroX applications, including the contest website, DOE websites, and partner websites, and the inclusion of the submission in any other media worldwide. The submission may be viewed by DOE, the competition administrator, and the reviewers for purposes of the contests, including but not limited to screening and evaluation purposes. The competition administrator and any third parties acting on their behalf will also indefinitely retain the right to publicize competitors' names and, as applicable, the names of competitors' team members and organizations that participated in the submission process on the contest website.

By entering, the competitor represents and warrants that:

1. The competitor's entire submission is an original work by the competitor, and the competitor has not included third-party content (such as writing, text, graphics, artwork, logos, photographs, dialogue from plays, likenesses of any third party, musical recordings, clips of videos, television programs, or motion pictures) in or in connection with the submission, unless (i) otherwise requested by the competition administrator and/or disclosed by the competitor in the submission, and (ii) the competitor has either obtained the rights to use such third-party content or the content of the submission is considered to be in the public domain without any limitations on use;
2. Unless otherwise disclosed in the submission, the use thereof by the competition administrator, or the exercise by the competition administrator of any of the rights granted by the competitor under these rules, does not and will not infringe or violate any rights of any third party or entity, including, without limitation, patent, copyright, trademark, trade secret, defamation, privacy, publicity, false light, misappropriation, intentional or negligent infliction of emotional distress, confidentiality, or any contractual or other rights;
3. All persons who were engaged by the competitor to work on the submission or who appear in the submission in any manner have:
    a. Given the competitor their express written consent to submit the submission for exhibition and other exploitation in any manner and in any and all media, whether now existing or hereafter discovered, throughout the world;

b. Provided written permission to include their name, image, or pictures in or with the submission (or if a minor who is not the competitor's child, the competitor must have the permission of their parent or legal guardian), and the competitor may be asked by the competition administrator to provide permission in writing;
c. Not been and are not currently under any union or guild agreement that results in any ongoing obligations resulting from the use, exhibition, or other exploitation of the submission.

Copyright

Each competitor represents and warrants that the competitor is the sole author and copyright owner of the submission; that the submission is an original work of the applicant or that the applicant has acquired sufficient rights to use and to authorize others, including DOE, to use the submission, as specified throughout the rules; that the submission does not infringe upon any copyright or upon any other third party rights of which the applicant is aware; and that the submission is free of malware.

Teams are not required to have secured a license or rights to a technology to present a business plan that leverages a specific technology, but they should have confidence that the technology could hypothetically be licensed or otherwise be made available to a team for use as part of their business model.

Contest Subject to Applicable Law

All contests are subject to all applicable federal laws and regulations. Participation constitutes each participant's full and unconditional agreement to these contest rules and administrative decisions, which are final and binding in all matters related to the contest. This notice is not an obligation of funds; the final awards are contingent upon the availability of appropriations.

Resolution of Disputes

DOE is solely responsible for administrative decisions, which are final and binding in all matters related to the contest.

Neither DOE nor the prize administrator will arbitrate, intervene, advise on, or resolve any matters between team members or among competitors.

Publicity

The winners of these prizes (collectively, "winners") will be featured on the DOE and NREL websites.

Except where prohibited, participation in the contest constitutes each winner's consent to DOE's and its agents' use of each winner's name, likeness, photograph, voice, opinions, and/or hometown and state information for promotional purposes through any form of media worldwide, without further permission, payment, or consideration.

Liability

Upon registration, all participants agree to assume, and thereby have assumed, any and all risks of injury or loss in connection with or in any way arising from participation in this contest and/or development of any submission. Upon registration, except in the case of willful misconduct, all participants agree to and thereby do waive and release any and all claims or causes of action against the federal government and its officers, employees, and agents for any and all injury and damage of any nature whatsoever (whether existing or thereafter arising; whether direct, indirect, or consequential; and whether foreseeable or not) arising from their participation in the contest, whether the claim or cause of action arises under contract or tort.

Records Retention and the Freedom of Information Act

All materials submitted to DOE as part of a submission become DOE records and are subject to the Freedom of Information Act. The following applies only to portions of the submission not designated as public information in the instructions for submission. If a submission includes trade secrets or information that is commercial or financial, or information that is confidential or privileged, it is furnished to the government in confidence, with the understanding that the information shall be used or disclosed only for evaluation of the application. Such information will be withheld from public disclosure to the extent permitted by law, including the Freedom of Information Act. Without assuming any liability for inadvertent disclosure, DOE will seek to limit disclosure of such information to its employees and to outside reviewers when necessary for review of the application or as otherwise authorized by law. This restriction does not limit the government's right to use the information if it is obtained from another source.

Submissions containing confidential, proprietary, or privileged information must be marked as described below. Failure to comply with these marking requirements may result in the disclosure of the unmarked information under the Freedom of Information Act or otherwise. The U.S. government is not liable for the disclosure or use of unmarked information and may use or disclose such information for any purpose.

The submission must be marked as follows, and the specific pages containing trade secrets, confidential, proprietary, or privileged information must be identified:

Notice of Restriction on Disclosure and Use of Data:

Pages [list applicable pages] of this document may contain trade secrets or confidential, proprietary, or privileged information that is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes. [End of Notice]

The header and footer of every page that contains confidential, proprietary, or privileged information must be marked as follows: "Contains Trade Secrets or Confidential, Proprietary, or Privileged Information Exempt from Public Disclosure." In addition, each line or paragraph containing proprietary, privileged, or trade secret information must be clearly marked with double brackets.

Competitors will be notified of any Freedom of Information Act requests for their submissions in accordance with 29 C.F.R. § 70.26. Competitors may then have the opportunity to review materials and work with a Freedom of Information Act representative prior to the release of materials.

Privacy

If you choose to provide HeroX with personal information by registering or completing the submission package through the contest website, you understand that such information will be transmitted to DOE and may be kept in a system of records. Such information will be used only to respond to you in matters regarding your submission and/or the contest, unless you choose to receive updates or notifications about other contests or programs from DOE on an opt-in basis. DOE and NREL are not collecting any information for commercial marketing.

General Conditions

DOE reserves the right to cancel, suspend, and/or modify the contest, or any part of it, at any time. If any fraud, technical failures, or any other factor beyond DOE's reasonable control impairs the integrity or proper functioning of the contests, as determined by DOE at its sole discretion, DOE may cancel the contest.

Although DOE indicates that it will select up to several winners for each contest, DOE reserves the right to only select competitors that are likely to achieve the goals of the program. If, in DOE's determination, no competitors are likely to achieve the goals of the program, DOE will select no competitors to be winners and will award no prize money.

ALL DECISIONS BY DOE ARE FINAL AND BINDING IN ALL MATTERS RELATED TO THE CONTEST.

DOE may conduct a risk review, using government resources, of the competitor and project personnel for potential risks of foreign interference. The outcomes of the risk review may result in the submission being eliminated from the prize competition. This risk review, and potential elimination, can occur at any time during the prize competition. An elimination based on a risk review is not appealable.

Competition Authority and Administration

EnergyTech UP is organized by DOE and NREL, which is managed and operated by the Alliance for Sustainable Energy, LLC, for DOE. Funding is provided by DOE OTT. The views expressed herein do not necessarily represent the views of DOE or the U.S. government.

EnergyTech UP is governed and adjudicated by this rules document, which is intended to establish fair contest rules and requirements. The competition is designed and administered by a team consisting primarily of DOE and NREL staff. In the case of a discrepancy with other competition materials or communication, this document takes precedence. The latest release of these rules takes precedence over any prior release. The prize administrator reserves the right to change contest criteria, rules, and outcomes as needed. Additionally, competitors are encouraged to bring to the organizers' attention to rules that are unclear, misguided, or in need of improvement. For the purposes of competition evaluation, a violation of the intent of a rule will be considered a violation of the rule itself. Questions on these rules or the program overall can be directed to ott.energytechup@nrel.gov.

Expert reviewers may not (a) have personal or financial interests in, or be an employee, officer, coordinator, or agent of any entity that is a registered participant in the contest; or (b) have a familial or financial relationship with an individual who is a registered competitor in this contest.

By making a submission and consenting to the rules of this competition, each team member grants to the government permission to use and make publicly available any entry provided or disclosed to DOE in connection with the competition. In addition, each team grants to the government, and others acting on its behalf, a paid-up nonexclusive, irrevocable, worldwide license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the U.S. government, any and all copyrighted works that are or make up any submission.

EnergyTech UP and any associated nicknames and logos ("Competition Marks") are trademarks owned by DOE. The trademark license granted to contestants is below. Non-contestants can request individualized trademark licenses (for the purpose of engaging with contestants and/or expressing interest in the competition); the decision to grant such licenses is under the sole discretion of DOE.

1. Contestants are granted, for the duration of the competition, a revocable, nonexclusive, royalty-free license to use the Competition Marks for the purposes of producing materials for the competition and other approved competition-related activities, as long as the use does not suggest or imply endorsement of the contestant by DOE, and the use of the Competition Marks by a contestant does not imply the endorsement, recommendation, or favoring of the contestant by DOE.
2. Contestants may not use the Competition Marks for any other purpose. Contestants may not sublicense the Competition Marks.
3. All contestants can request individualized trademark licenses; the decision to grant such requests is under the sole discretion of DOE.

Further, from the Competes Act:

> **(j) Intellectual property**
>
> > **(1) Prohibition on the government acquiring intellectual property rights**
> >
> > The Federal Government may not gain an interest in intellectual property developed by a participant in a prize competition without the written consent of the participant.
> >
> > **(2) Licenses**
> >
> > As appropriate, and to further the goals of a prize competition, the Federal Government may negotiate a license for the use of intellectual property developed by a registered participant in a prize competition.

National Environmental Policy Act Compliance

DOE's administration of this prize is subject to the National Environmental Policy Act (NEPA) (42 USC 4321, et seq.). NEPA requires federal agencies to integrate environmental values into their decision-making processes by considering the potential environmental impacts of their proposed actions. For additional background on NEPA, please see DOE's NEPA website at http://nepa.energy.gov/.

While NEPA compliance is a federal agency responsibility and the ultimate decisions remain with the federal agency, all participants in this prize will be required to assist in the timely and effective

completion of the NEPA process in the manner most pertinent to their participation in the prize competition. Participants may be asked to provide DOE with information on their planned activities such that DOE can conduct a meaningful evaluation of the potential environmental impacts.

Return of Funds

As a condition of receiving a prize, competitors agree that if the prize was awarded based on fraudulent or inaccurate information provided by the competitor to DOE, DOE has the right to demand that any prize funds or the value of other noncash prizes be returned to the government.