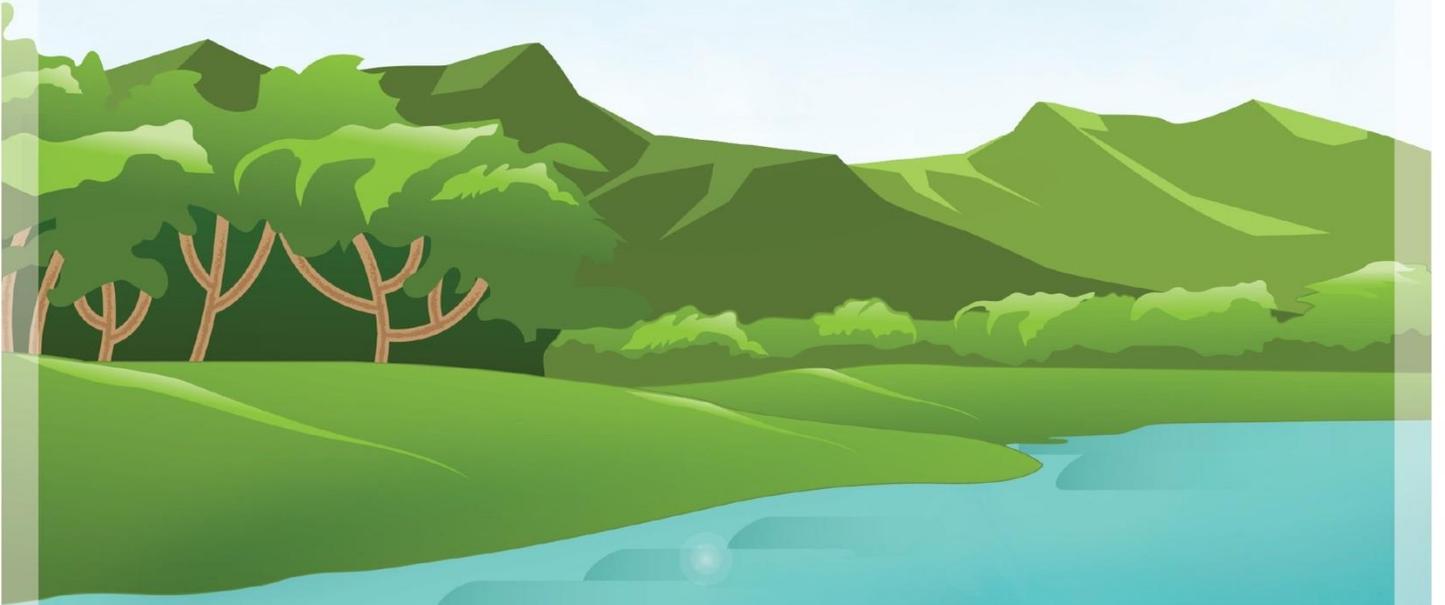


AMERICAN MADE WATER PRIZE

FISH PROTECTION PRIZE



Official Rules

January 2020



U.S. DEPARTMENT OF ENERGY

Preface

The U.S. Department of Energy Fish Protection Prize will be governed and adjudicated by this official rules document, which establishes the rules and requirements for the Fish Protection Prize. The Prize Administrator reserves the right to modify this official rules document if necessary and will publicly post any such notifications as well as notify registered prize participants.

MODIFICATIONS	DATE
1. Amended the CONCEPT Stage closure date to extend the deadline through May 13, 2020.	April 27, 2020
2. Amended anticipated dates and specification of in-person events.	June 30, 2020

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1. Executive Summary

In December 2019, the Bureau of Reclamation (Reclamation) announced winners of its Improving Fish Exclusion from Water Diversions and Intakes (Fish Exclusion Prize) competition. This effort is a continuation of that initial competition and is titled the Fish Protection Prize. The U.S. Department of Energy (DOE) Water Power Technologies Office (WPTO) in collaboration with Reclamation invites you to join this competition to share your innovative methods along with a design and research plan for protecting fish through improved fish exclusion technologies for water diversions and intakes.

Winners of the CONCEPT Stage will receive vouchers for up to 50 hours of support from the Pacific Northwest National Laboratory (PNNL) in the INCUBATION Stage to prepare for a PITCH CONTEST Stage, which will result in up to 3 winners and up to \$700,000 of combined cash prizes and voucher support for testing design and facilities support from DOE national laboratories and Reclamation.

The goal of the Fish Protection Prize is to catalyze new solutions, designs, and strategies to improve fish exclusion technology by decreasing the numbers of entrained fish from river and canal diversions, unscreened diversion pipes, or intakes at hydropower dams. Proposed solutions and research designs can include radical new ideas or technologies that are ready to commercialize. Submissions that address fish exclusion for one or more freshwater or migratory riverine species of concern in the United States, at any life stage, will be accepted.

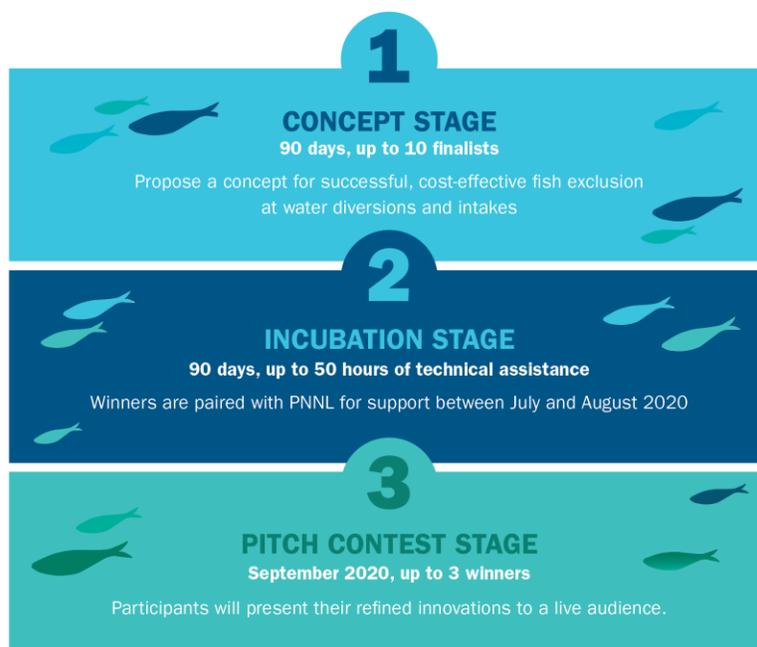
1.1 System Development Goals

The following six topic areas have been identified as having the greatest potential for gaining successful and cost-effective fish exclusion for water diversions and intakes. While the prize seeks all potential solutions, these are the areas identified as having the greatest opportunities:

1. **Sensory deterrents** – Sensory deterrent systems rely on introduced stimuli to create avoidance behavior in the fish. Technologies that make up this innovation category include but are not limited to air bubble curtains, electrical barriers, underwater sound, and underwater strobe lights.
2. **Turbulence and velocity-based deterrents** – These technologies alter flow by inducing or redirecting turbulence and/or velocity to deter fish from diversions, pipes, and intakes.
3. **Combination stimulus barriers** – This innovation category can utilize multiple stimulus deterrents, or a combination of physical and nonphysical barriers, to avert fish from diversions, pipes, and intakes.
4. **Diversion or intake layouts/geometry** – This category addresses siting conditions and/or design elements for diversions and intakes that can enhance fish exclusion.
5. **Fish screen materials or coatings** – This category includes alternate fish screen materials or coatings that can reduce the cost of installing and/or maintaining fish screens, reduce debris impacts, or enhance the performance of fish screens.
6. **Fish screen cleaning methods** – This innovation category improves fish screen performance by reducing the impacts of debris, sediment, ice, and biofouling. Existing technologies include air burst, water jet, and brush cleaning systems.

1.2 Prize Stages and Awards

The Fish Protection Prize has three stages: (1) CONCEPT, (2) INCUBATION, and (3) PITCH CONTEST. Anyone can submit an idea for the Fish Protection Prize CONCEPT Stage, including competitors from the previous Fish Exclusion prize. Up to 10 Finalists will be selected from the CONCEPT submissions to enter the INCUBATE Stage. In the INCUBATION Stage, participants will be paired with PNNL and receive up to 50 hours of support, which could include technical analysis or other support, in advance of the PITCH CONTEST. The PITCH CONTEST will determine which of the finalists will receive the cash and voucher Grand Prizes.



The three open stages are as follows:

Stage I: CONCEPT

90 DAYS: January 27, 2020, to May 13, 2020

Win Up To 50 Hours of Support

Competitors in the CONCEPT Stage submit their new concepts for successful and cost-effective fish exclusion at water diversions and intakes or improvements to existing fish exclusion technologies. Submissions will include a Technical Narrative which describes the technical innovation, technical feasibility, market feasibility, and a description of a research and development plan for the concept. In addition, competitors must submit a 90-second Video Summary and a one-page summary slide of their concept. The Prize Administrator will screen completed submissions and assign subject matter expert reviewers to independently score the content of each submission. Up to 10 winners will be selected by the Prize Administrator, in consultation with WPTO and Reclamation, for up to 50 hours of support from PNNL, as well as travel expenses for one team member to attend the PITCH CONTEST.

More information on what to submit and the criteria for this stage can be found in Section 3—CONCEPT Rules and Requirements.

Stage II: INCUBATION

90 DAYS: June 2020 through August 2020

Win an Invitation to the Pitch Contest

Finalists from the CONCEPT Stage are paired with PNNL for 50 hours of support from June through August 2020 in advance of the PITCH CONTEST. Participants work with PNNL to advance their concept maturity and refine their value proposition for the fish protection and water resources management communities. Work conducted with PNNL can include analysis, communications support, or light technical support.

Participants will submit their revised Technical Narrative ten business days prior to the PITCH CONTEST and a slide deck 24 hours prior to the PITCH CONTEST. The Prize Administrator will screen the submissions and determine if the competitor has submitted their materials.

Should STAGE II competitors fail to submit the required Technical Narrative and pitch deck, there will be no invitation to pitch for STAGE III. More information on what to submit can be found in Section 4—INCUBATE Rules and Requirements.

Stage III: PITCH CONTEST

1 DAY: September 2020

Three Winners with Prize Pool Up to \$700,000 in Cash and In-Kind Prizes

Competitors will present their concepts in the form of a 10-minute pitch and 10-minute question and answer period. Competitors will be scored based both on their pitch and their required Technical Submission and will be evaluated based on technical innovation, technical feasibility, market feasibility, and the proposed research and development plan. The total calculated score—which includes the INCUBATION Stage Technical Narrative, and the PITCH CONTEST evaluation—can be found in Section 5. The PITCH CONTEST will be scored by a panel of reviewers selected by WPTO and Reclamation. The Prize Administrator, in consultation with WPTO and Reclamation, will select the contest winners. The winners of this stage will receive cash and in-kind voucher support for use through September 30, 2021.¹ More information on what to submit and the criteria for this stage can be found in Section 6—PITCH CONTEST Rules and Requirements.

1.3 Application Requirements

Any proposed solution must address the following Technical Requirements to be eligible to receive consideration beyond the CONCEPT Stage.

- The solution proposes a method(s) for excluding fish from water diversions and intakes.
- The proposed solution represents an innovation that will move the industry beyond its current state.
- The proposed solution does not involve the lobbying of any federal, state, or local government.
- The proposed solution is based on sound fundamental technical principles.

If a proposed solution does not meet the above requirements, it will not be subjected to additional review, will not receive scores from the reviewers, and will not be considered for advancement in the Fish Protection Prize.

1.4 Participant Eligibility

The competition is open only to: (a) citizens or permanent residents of the United States; and (b) private or non-federal public entities, such as townships, tribes, corporations, or other organizations that are incorporated in and maintain a primary place of business in the United States. Individuals can compete alone or as a member of a group.

¹ This date is subject to change as advised by WPTO.

A representative of a private entity can register the entity to compete. So long as an entity is legally formed under the laws of a state or the laws of the United States, individuals working under that entity may participate regardless of immigration status.

DOE employees, employees of sponsoring organizations, members of their immediate families (i.e., spouses, children, siblings, or parents), and persons living in the same household as such persons, whether or not related, are not eligible to participate in this prize. Federal entities and federal employees, acting within the scope of their employment, are not eligible to participate in any portion of this prize. DOE national laboratory employees cannot participate in any stage of the prize.

2. Background

On December 11, 2019, Reclamation announced the winners of its Improving Fish Exclusion from Water Diversions and Intakes Prize (Fish Exclusion Prize) competition, which sought ideas to keep fish safe from water diversions and intakes. The Fish Protection Prize competition builds upon this effort and asks any potential competitors to develop a concept and design a research and testing plan for protecting fish through improved fish exclusion technologies for water diversions and intakes. This competition will support competitors by providing cash and in-kind prizes, technical expertise from PNNL, and by showcasing the solutions at a live pitch.

This document is the official rules for the Fish Protection Prize. Participants are encouraged to visit the [HeroX website](#) for more information on how to submit their innovative solutions for prize consideration. The prize is also advertised on [Challenge.gov](#).

Fish exclusion is a way of preventing movement of fish into a water diversion or intake. This includes both physical and non-physical barriers. Without a fish exclusion device or method, fish can be entrained into diversions or intakes, which means that they are removed from their natural environment. This can result in the loss of native fishes and reduced operating capabilities of the involved infrastructure.

Improved technologies and methods that reduce entrainment at diversions and intakes will promote more sustainable and reliable water resource systems that can provide greater benefits for aquatic species and the public. While effective fish exclusion for some fish species and life history stages can be achieved, improvements are needed to increase fish protection efficiencies, target a wider range of fish species and sizes, and reduce construction, operation, and maintenance costs compared to conventional fish exclusion methods.

2.1 Improving Fish Exclusion from Water Diversions and Intakes

Alterations to the natural environment caused by water resource development have impacted many aquatic species. Declines in the number of native fish, both resident and migratory, in the United States have led to numerous listings of fish species as threatened or endangered under federal and/or state laws.

Unscreened water diversions and pipes used to redirect water for irrigation and water supply provide avenues for fish to be separated from their natural habitat and moved into unnatural environments. This movement is referred to as “entrainment.” Entrainment of fish into water diversions and intakes can have population-level impacts, threatening biodiversity and impeding fish recovery efforts for threatened and endangered species.

The rate of water diverted can range from as little as 2 ft³/s (0.06 m³/s) up to 5,000 ft³/s (142 m³/s) for any width of diversion up to 1,000 ft (305 m) long or any diameter of pipe from 0.5 to 20 ft (0.15 to 6.1 m). Fish that move with the flow of water into unnatural habitat can be injured or killed because of exposure to or impingement on anthropogenic structures and increased predation. Fish passage through turbines and pumps at hydropower dams and open-loop pumped storage facilities may harm entrained fish due to physical collisions with machinery, shear stress and turbulence inside the hydraulic equipment, and barotrauma caused by rapid pressure changes.

There are a broad range of fish species of concern in the United States that encounter water diversions and hydropower and flood control dams including salmon, steelhead, sturgeon (green, pallid, shovelnose)

and paddlefish, eel, lamprey (Pacific, brook, river), Delta smelt, shad, suckers, river herring (alewife, blueback herring), and bull trout. In addition to preventing the unintentional movement, or entrainment, of species of concern, fish exclusion devices and techniques can also be used to:

- Improve downstream fish passage at dams and other obstacles by guiding fish to the preferred location for passage.
- Prevent the movement and range expansion of invasive or unwanted fish species because they can alter the natural ecosystem and cause genetic and population impacts to native fish. In regions where they have been introduced, carp, trout, northern pike, sea lamprey, smallmouth bass, and round goby are invasive fish species.

All species and life stages of fish can be vulnerable to entrainment. Fish have variable vulnerability to entrainment because of diverse body shapes and sizes (e.g., 2 mm [0.08 in] to over 40 cm [15.7 in]) and different habitat use, movement tendencies, and migration patterns. Poor swimming ability is often linked to increased entrainment risk. For example, weaker swimming and juvenile fish may be more likely to face impingement on physical barriers such as screens.

Furthermore, traditional fish exclusion methods are often ineffective for larval fish and eggs because they move like a particle in the flow and can fit through some physical barriers (e.g., screens) because of their small size. The position of the fish in the water column relative to the position of an intake can also affect entrainment. Juvenile salmon, for example, tend to be near the top of the water, and adult sturgeon tend to be near the bed of the river and so their entrainment susceptibility differs depending on the location of the intake in the water column. Fish photo galleries such as [EPRI's Larval Fish and Egg Keys](#) and [Reclamation's Fish of the South Delta](#), are good references to see the diversity of fish species and sizes within the United States.

Because of these differences, a one-size-fits-all solution may be unlikely. However, fish exclusion ideas that are effective for a subset of conditions are highly valuable, and even solutions that apply to a single fish species and life stage can be very useful for water diverters.

3. Stage I: CONCEPT Rules and Requirements

3.1 Introduction

The Fish Protection Prize is a three-stage contest seeking new concepts for innovative and cost-effective fish exclusion at water diversions and intakes or novel improvements to existing fish exclusion technologies.

The purpose of the CONCEPT Stage is to challenge competitors to: (1) clearly demonstrate the technical feasibility and analytical evidence of a concept; and (2) develop a research and development plan which identifies ways in which technical and facilities support available at PNNL will be utilized to demonstrate a pathway to prototype development.

Solutions must have high fish protection efficiencies and low impact to fish health and the environment. Competitors are not limited to one specific fish species, but rather can submit solutions that are effective for any fish species found in freshwater rivers and/or estuaries in the United States. Concepts that can successfully exclude multiple fish species are encouraged. A successful solution should describe which fish species and size class(es) would be excluded with the proposed concept, the method of exclusion, as well as a plan for design, engineering, and commercialization support to advance the concept.

The CONCEPT Stage invites competitors to develop and submit a Technical Narrative that includes:

- Information on how the system meets the goals of the prize, as laid out in Section 1.1 of this document; and
- A plan for how the competitor intends to develop and refine the concept design in the subsequent INCUBATION Stage, and a preliminary plan for testing the concept design utilizing PNNL and/or Reclamation facilities and capabilities.

The competitors that demonstrate they have the technical capability to further develop and design a proof-of-concept may be selected to receive 50 hours of in-kind support from PNNL for the INCUBATE Stage.

The following rules are for competitors in the CONCEPT Stage. “You” and “your” reference competitors in this stage. Any eligible competitor can compete in this stage. There are no limits on the number of submissions from any one competitor or team.

3.2 How to Enter

Complete a submission package online at <https://www.herox.com/fishprotection> before the contest closing date and time.

3.3 Important Dates

Opening of CONCEPT Stage: January 27, 2020, 8AM ET

CONCEPT Stage Prizes

- Up to 10 finalists will receive 50 hours of in-kind support from PNNL and advance to the INCUBATE Stage.
- Only INCUBATE Stage competitors will be eligible to participate in the PITCH CONTEST Stage, with a prize pool of \$700,000.

Close of CONCEPT Stage: May 13, 2020, 5PM ET

Expected Winner Notification: June 2020

3.4 What to Submit

The following items constitute the submissions package for the CONCEPT Stage and must be submitted through the HeroX platform:

- Cover Page Content (to be made public, not scored)
- Submission Summary Slide (to be made public, not scored)
- 90-second Video Summary (to be made public, scored)
- Technical Narrative (scored)²
- Optional: Supporting Documentation
- Optional: Letters of Commitment or Support.

Cover Page Content

Cover page—List basic information about your submission (will be made public)

- | | |
|---|--|
| <ul style="list-style-type: none">• Title• Short description | <ul style="list-style-type: none">• Key project members (names, contacts, and links to their other professional online profiles)• Your city and state• Other partners (if any) |
|---|--|

Submission Summary Slide

Submission Summary Slide (will be made public)

Make your own public-facing, one-slide submission summary that contains technically specific details but can be understood by most people. There is no template, so feel free to present the information as you see fit. Please make any text readable in a standard printout and conference room projection.

Scored Items: 90-Second Video Summary and Technical Narrative

There are two required items: A 90-second Video Summary and the Technical Narrative.

The Technical Narrative and Video Summary scoring will be used to calculate the final score. The Technical Narrative and Video Summary statements will each be rated on a score of 1–6, as shown here.

² Competitors who do not want the Technical Narrative or other documents to be made public will need to mark them according to the instructions in Section 11 of Appendix 1.

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

The table below explains the manner in which the final scores for each submission will be calculated.

Item	Number of Scored Statements	Percentage of Total Score	Total Possible Points
90-Second Video Summary	1	5%	6
Technical Narrative Total	17	95%	102
Criteria 1: Innovation	3	17%	18
Criteria 2: Technical Feasibility	6	33%	36
Criteria 3: Market Feasibility	3	17%	18
Criteria 4: Research and Development Plan	5	28%	30
TOTAL	18	100%	108

90-Second Video

Post your publicly accessible video online (e.g., YouTube, Vimeo, etc.). Be creative and produce a video that conveys the suggested content listed below or any other information that will help the reviewers understand your solution in an exciting and interesting way, but do not focus on time consuming activities that only improve production values (i.e., technical elements such as décor, lighting, and cinematic techniques). The reviewers will score the video based on the content you have provided.

Online Public Video – What is your solution in 90 seconds?	
<p>Suggested Content You Provide:</p> <ul style="list-style-type: none"> Concise summary of your concept innovation, technical feasibility, market feasibility, and research and development plan. Introduction to your team. 	<p>Each Statement Scored on 1–6 scale</p> <ul style="list-style-type: none"> The proposed solution presents a clear and concise summary of the concept and introduces the project team.

Technical Narrative

The Technical Narrative should address the technical innovation, technical feasibility, market feasibility, and overall research and development plan. There are four criteria you will be evaluated against for your Technical Narrative. You can use **up to 5,000 words (excluding references)** and **up to 10 supporting images, figures, or graphs** to populate the template provided on [HeroX](#).

The four criteria are as follows:

- **Criteria 1: Innovation**—Does your concept represent a novel solution that offers an effective fish exclusion system for one or more species?
- **Criteria 2: Technical Feasibility**—Is your solution technically feasible?
- **Criteria 3: Market Feasibility**—Can you prove the financial feasibility of your proposed solution, including the potential for commercialization and successful market adoption?
- **Criteria 4: Research and Development Plan**—What is your plan to achieve your goals?

The following table suggests content for you to provide and the statements used to evaluate your Technical Narrative. The content bullets are only suggestions to guide your responses; you decide where to focus your response.

Criteria 1: Innovation—Does your concept represent a novel solution that offers an effective fish exclusion system for one or more species?	
Suggested Content You Provide	Each Statement Scored on 1–6 Scale
<ul style="list-style-type: none"> ● How this solution is unique from what has been demonstrated or is currently available. ● Identify the fish species or type(s) that the technology is applicable to. ● Any novel or unique material technologies, or any other choices driving innovation. ● How this technology is specifically suited to exclude one or more fish species. ● Describe the fish species and size class your innovation addresses: <ul style="list-style-type: none"> ○ Larval: 2 mm–3 cm (0.08–1.2 in) ○ Small: 3 cm–15 cm (1.2–5.9 in) ○ Medium: 20 cm–40 cm (7.9–15.7 in) ○ Large: >40 cm (>15.7 in). ● Describe the types of water diversions or intakes your innovation applies to. 	<ul style="list-style-type: none"> ● The proposed solution presents a novel approach or includes innovative elements or fundamental advances compared with incumbent fish exclusion systems. ● The proposed solution has unique attributes that make it more likely to serve the needs of water diversions and intakes than incumbent or existing technologies. ● The proposed solution clearly identifies and defines the application space (fish species, size class, diversion type, and characteristics).
Criteria 2: Technical Feasibility—Is your solution technically feasible?	
Suggested Content You Provide	Each Statement Scored on 1–6 Scale
<ul style="list-style-type: none"> ● Describe specific installation strategies, including any special equipment that is needed for installation, in a narrative of how the device will be installed in a hypothetical water diversion or intake site. ● Describe how your solution minimizes mortality, harm, and stress to fish. 	<ul style="list-style-type: none"> ● The fish exclusion system demonstrates a feasible deployment, retrofitting, and installation approach. ● The submission adequately describes how the entire system will function once installed. ● The solution adequately addresses how it will minimize mortality, harm, and stress to fish.

<ul style="list-style-type: none"> ● Technology risks/challenges (e.g., equipment, material, or processes) associated with your concept and how they will be mitigated. ● The fish exclusion device principles and implementation strategy. ● Identify how your solution adequately manages debris, sediment, ice, and biofouling. 	<ul style="list-style-type: none"> ● The proposed fish exclusion solution is free of any major technical flaws. ● The risks associated with the proposed solution are well understood and articulated. ● The fish exclusion maintenance and operation systems are adequately described.
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Criteria 3: Market Feasibility—Can you prove the financial feasibility of your proposed solution, including the potential for commercialization and successful market adoption?

<p>Suggested Content You Provide</p> <ul style="list-style-type: none"> ● Describe the path to commercialization, including the identification of cross-cutting industry partnerships that would enable the development of the technology. ● The unique value proposition of your solution. ● The scalability of your solution to other market or technological applications. ● Describe any potential environmental or other risks and associated mitigation strategies. ● Additional consideration of end-user requirements or needs. 	<p>Each Statement Scored on 1–6 Scale</p> <ul style="list-style-type: none"> ● The proposed solution clearly identifies the path to commercialization. ● The proposed solution can be produced with known manufacturing processes or leverages off-the-shelf components. ● As described, the solution identifies environmental or other risks and proposes a potential mitigation plan.
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Criteria 4: Research and Development Plan—What is your plan to achieve your goals?

<p>Suggested Content You Provide</p> <ul style="list-style-type: none"> ● Describe the support you would seek from PNNL during the INCUBATE and post-PITCH CONTEST voucher support periods. ● Describe your strategy to develop a proof-of-concept of your technology, providing preliminary diagrams, or other materials. ● Provide a plan to meet your goals after the conclusion of the PITCH CONTEST Stage, including such things as estimated funding amounts to build your prototype, useful introductions and connections to stakeholders or customers, required testing facilities or equipment needed (both software and hardware), subject matter 	<p>Each Statement Scored on 1–6 Scale</p> <ul style="list-style-type: none"> ● The stated goals to advance the solution in the INCUBATE Stage are realistic. ● The submission adequately identifies lab resources to advance their solution. ● The proposed plan for the post-PITCH CONTEST Stage is reasonable given the time allocated and the team’s available resources. ● The team’s drive, knowledge, and complementary skillsets provide a strong competitive edge. ● This innovation, team, and plan should be strongly considered for an INCUBATE Stage prize (score only a 1 or a 6).
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<p>expertise;, or any other relevant services, infrastructure, or partners that you think you will need.</p> <ul style="list-style-type: none"> • Describe your team’s readiness to meet your goals and if additional talent and resources are needed. 	
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Letters of Commitment or Support

Letters of Commitment or Support (Optional)
 Attach one-page letters (of support, intent, or commitment) from other relevant entities (e.g., potential users of the proposed innovation) to provide context. This could include letters of support from partners or others that you believe are critical to the success of your proposed solution. Please do not submit multi-page letters.

3.5 How We Determine Winners

The Prize Administrator screens all completed submissions and, in consultation with DOE and Reclamation, assigns subject matter expert reviewers to independently score the content of each submission. The reviewers will be composed of federal and non-federal subject matter experts with expertise in areas relevant to the competition. Reviewers will review Technical Narrative submissions according to the evaluation criteria described in Section 3.4.

Reviewer Panel Scoring: The scoring of submissions will proceed as follows:

- Reviewers will review the Technical Submission (Technical Narrative and video) individually and assess the competitors’ response to each statement for all three criteria questions.
- Reviewers will score each statement between 1 and 6, depending on the degree to which the reviewer agrees that the Technical Submission (Technical Narrative and video) reflects the statement.
- Each statement score will be added together to generate a total score for the submission, ranging from 18 to 108.
- The total scores from each reviewer will be averaged to develop a final score for the applicant. This score will inform the judges’ decisions on awarding prizes.

Interviews: WPTO and Reclamation may decide to interview a subset of competitors. The interviews would be held prior to the announcement of winners and would serve to help clarify questions the reviewers may have. Participating in interviews is not required, and interviews are not an indication of winning.

Final Determination: The Director of WPTO and the Science Advisor of Reclamation are the judges of the competition and will make the final determination of winners. Final determination of winners by the judges will take the reviewers’ scores and the interview findings (if applicable).

Announcement: Approximately 30 days after the contest closes, the Prize Administrator will notify winners and request the necessary information to distribute the in-kind prizes. The Prize Administrator will then publicly announce winners.

3.6 Additional Terms and Conditions

See Appendix 1 for additional requirements. COMPETITORS THAT DO NOT COMPLY WITH THE ADDITIONAL REQUIREMENTS IN APPENDIX 1 MAY BE DISQUALIFIED.

4. Stage II: INCUBATION Stage Rules and Requirements

4.1 Overview

Competitors in the INCUBATION Stage are invited to continue to refine their concept in preparation for the PITCH CONTEST Stage. During this period, winners of the CONCEPT Stage will access up to 50 hours of support from PNNL. More information about the agreements that will be used to conduct this work can be found in Appendix 1. The 50 hours of support are only for use from the beginning of the INCUBATION Stage up to the day of the PITCH CONTEST.

4.2 What to Submit

Although it is not a requirement to use the 50 hours of support, all INCUBATION Stage competitors are required to submit:

- (1) **Technical Narrative:** A Technical Narrative is due at least **10 business days before the PITCH CONTEST**; and
- (2) **Pitch Deck:** A pitch deck for the PITCH CONTEST Stage is due at least **24 hours in advance of the PITCH CONTEST**.

The Technical Narrative should include updated content submitted for Stage I: CONCEPT, as well as a description of how the support provided by PNNL during Stage II: INCUBATION was utilized to develop and refine your fish exclusion technology. You can use **up to 5,250 words (excluding references) and up to 10 supporting images, figures, or graphs** to populate the template provided on HeroX.

The following items constitute the submissions package for the INCUBATE Stage and must be submitted through the HeroX platform:

- **Technical Narrative** (scored as part of the Stage III: PITCH CONTEST overall scoring, will not be made public)
- **Pitch Deck** (scored as part of pitch presentation in Stage III: PITCH CONTEST, will be made public)

The Prize Administrator will screen the submissions and, in consultation with WPTO, determine if the participant has submitted all the required materials.

Should Stage II: INCUBATION participants fail to submit the required report, there will be no invitation to pitch for Stage III: PITCH CONTEST. The review criteria for the Technical Narrative and pitch deck, which will be used in the PITCH CONTEST Stage to evaluate finalists for the \$700,000 prize pool, can be found in Section 5 PITCH CONTEST.

4.3 Important Dates

Expected Start: June 2020

Expected Close: August 2020

5. Stage III: PITCH CONTEST Stage Rules and Requirements

INCUBATION Stage finalists who submit their required materials will be invited to a PITCH CONTEST Stage, where competitors will be evaluated on their Technical Narrative and pitch deck. Competitors will be evaluated by a panel of reviewers. Competitors will present information to convince an expert panel of reviewers of the technical underpinnings, business case, and feasibility of deployment of their concept. Up to three winners will be selected after the public PITCH CONTEST, with a total prize pool of up to \$700,000 in cash and in-kind vouchers from the national laboratories.

PITCH CONTEST Stage Prizes

- Up to 3 finalists will be selected and allocated a portion of the cash and in-kind prize pool of \$700,000.
- The Grand Prize Winners will receive in-kind voucher support from PNNL through September 30, 2021 to further develop their innovations.

Competitors will provide a pitch presentation to a panel of expert reviewers and members of the public. The details and agenda for the event will be provided 30 calendar days in advance of the event. Reviewers' scores will be informed by the Technical Narrative, as well as their assessments at the PITCH CONTEST.

5.1 Important Dates

Expected PITCH CONTEST: September 2020

Expected Winners Announced: September 2020

5.2 Scored Items

To determine winners of the PITCH CONTEST Stage, there are two scored elements that will be used by the reviewers to determine the three winners of the \$700,000 prizes:

- (1) **Technical Narrative:** The written narrative submitted at the INCUBATION Stage, which includes a revision of the submission from the CONCEPT Stage, and details on how the 50 hours were utilized; and
- (2) **Public Pitch:** A public pitch presentation in front of an audience, which includes details on the system.

Technical Narrative

The Technical Narrative should address the innovation potential, technical feasibility, market feasibility, and the overall research and development plan. There are 16 statements used to evaluate the Technical Narrative.

Each statement for the Technical Narrative will be scored based on a 1–6 scale, as shown here.

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

The table below explains the way the final scores for each submission will be calculated:

	Number of Scored Statements	Percentage of Total Score	Total Possible Points
Technical Narrative	18	79%	114
Criteria 1: Innovation	3	13%	18
Criteria 2: Technical Feasibility	6	25%	36
Criteria 3: Market Feasibility	3	13%	18
Criteria 4: Research and Development Plan	5	20%	30
Criteria 5: Description of Concept Development	2	8%	12
Pitch Presentation	5	21%	30
TOTAL	23	100%	144

There are five criteria you will be evaluated against for your Technical Narrative. The table below suggests content for you to provide and the statements used to evaluate your Technical Narrative. The content bullets are only suggestions to guide your responses; you decide where to focus your response.

Criteria 1: Innovation—Does your concept represent a novel solution that offers an effective fish exclusion system for one or more species?

Suggested Content You Provide

- How this solution is unique from what has been demonstrated or is currently available.
- Identify the fish species or type(s) that the technology is applicable to.
- Any novel or unique material technologies, or any other choices driving innovation.

Each Statement Scored on 1–6 Scale

- The proposed solution presents a novel approach or includes innovative elements or fundamental advances compared with incumbent fish exclusion systems.
- The proposed solution has unique attributes that make it more likely to serve the needs of

<ul style="list-style-type: none"> ● How this technology is specifically suited to exclude one or more fish species. ● Describe the fish size class your innovation addresses: <ul style="list-style-type: none"> ○ Larval: 2 mm–3 cm (0.08–1.2 in) ○ Small: 3 cm–15 cm (1.2–5.9 in) ○ Medium: 20 cm–40 cm (7.9–15.7 in) ○ Large: >40 cm (>15.7 in). ● Describe the types of water diversions or intakes your innovation applies to. 	<p>water diversions and intakes than incumbent or existing technologies.</p> <ul style="list-style-type: none"> ● The proposed solution clearly identifies and defines the application space (fish, size class, diversion type, and characteristics).
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Criteria 2: Technical Feasibility—Is your solution technically feasible?

<p>Suggested Content You Provide</p> <ul style="list-style-type: none"> ● Describe specific installation strategies including any special equipment needed for installation, in a narrative about how the device will be installed in a hypothetical water diversion or intake site. ● Describe how your solution minimizes mortality, harm, and stress to fish encountering fish exclusion devices. ● Technology risks/challenges (e.g., equipment, material, or processes) associated with your concept and how they will be mitigated. ● The fish exclusion device principles and implementation strategy. ● Identify how your solution adequately addresses the method for effectively managing debris, sediment, ice, and biofouling. 	<p>Each Statement Scored on 1–6 Scale</p> <ul style="list-style-type: none"> ● The fish exclusion system demonstrates a feasible deployment, retrofitting, and installation approach. ● The submission adequately describes how the entire system will function once installed. ● The solution adequately addresses how it will minimize mortality, harm, and stress to fish. ● The proposed fish exclusion solution is free of any major technical flaws. ● The risks associated with the proposed solution are well understood and articulated. ● The fish exclusion maintenance and operation systems are adequately described.
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Criteria 3: Market Feasibility—Can you prove the financial feasibility of your proposed solution, including the potential for commercialization and successful market adoption?

<p>Suggested Content You Provide</p> <ul style="list-style-type: none"> ● Describe the path to commercialization, including the identification of cross-cutting industry partnerships which would enable the development of the technology. ● The unique value proposition of your solution. 	<p>Each Statement Scored on 1–6 Scale</p> <ul style="list-style-type: none"> ● The proposed solution clearly identifies the path to commercialization. ● The proposed solution can be produced with known manufacturing processes or leverages off-the-shelf components.
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<ul style="list-style-type: none"> • The scalability of your solution to other market or technological applications. • Describe any potential environmental or other risks and associated mitigation strategies. • Additional consideration of end-user requirements or needs. 	<ul style="list-style-type: none"> • As described, the solution identifies environmental or other risks and proposes potential mitigation plan.
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Criteria 4: Research and Development Plan—What is your plan to achieve your goals?

<p>Suggested Content You Provide</p> <ul style="list-style-type: none"> • Description of the support you would seek from PNNL during the INCUBATE and Post-PITCH CONTEST voucher support periods. • Describe your strategy to develop a proof-of-concept of your technology, providing preliminary diagrams, or other materials. • Provide a plan to meet your goals after the conclusion of the PITCH CONTEST Stage, including such things as estimated funding amounts to build your prototype, useful introductions and connections to stakeholders or customers, required testing facilities or equipment needed (both software and hardware), subject matter expertise, or any other relevant services, infrastructure, or partners that you think you will need. • Describe your team’s readiness to meet your goals and if additional talent and resources are needed. 	<p>Each Statement Scored on 1–6 Scale</p> <ul style="list-style-type: none"> • The stated goals to advance the solution in the INCUBATE Stage are realistic. • The submission adequately identifies lab resources to advance their solution. • The proposed plan for the Post-PITCH CONTEST Stage is reasonable, given the time allocated and the team’s available resources. • The team’s drive, knowledge, and complementary skillsets provide a strong competitive edge. • This innovation, team, and plan should be strongly considered for an INCUBATE Stage prize (score only a 1 or a 6).
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Criteria 5: Description of Concept Development—How did you utilize the 50 hours of support from PNNL to advance and refine your concept?

<p>Suggested Content You Provide</p> <ul style="list-style-type: none"> • Describe the support utilized from PNNL to refine and advance your concept during the INCUBATE Stage. • Describe the activities that were undertaken to understand where the potential barriers and opportunities exist with your innovation. • Define how potential cash and in-kind support would be utilized following the PITCH CONTEST. 	<p>Each Statement Scored on 1–6 Scale</p> <ul style="list-style-type: none"> • The competitor clearly articulates how the 50 hours of support provided by PNNL were utilized to support the advancement and refinement of their fish exclusion innovation. • The concept defines support needed by PNNL and others for the Post-PITCH CONTEST cash and in-kind voucher support period.
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Submissions must include protective markings, where necessary, as set forth in Appendix 1, Section 11. All submissions that do not include protective markings will be considered to have been submitted with unlimited rights and may be published or used for any purpose whatsoever.

Pitch Presentation

During the PITCH CONTEST, presentations are limited to 10 minutes followed by 10 minutes for questions from the reviewers. Pitch presentations should clearly and concisely present the technical innovation, technical feasibility, market feasibility, and the overall research and development plan. The table below provides suggested content for you to include and the statements used to evaluate your pitch presentation. The content bullets are only suggestions to guide your responses; you decide where to focus your response.

Criteria 1: Innovation—Does your concept represent a novel solution that offers an effective fish exclusion system for one or more species?	
<p>Suggested Content You Provide</p> <ul style="list-style-type: none"> ● How this solution is unique from what has been demonstrated or is currently available. ● Identify the fish species or type(s) that the technology is applicable to. ● Any novel or unique material technologies, or any other choices driving innovation. ● How this technology is specifically suited to exclude one or more fish species. ● Describe the fish size class your innovation addresses: <ul style="list-style-type: none"> ○ Larval: 2 mm–3 cm (0.08–1.2 in) ○ Small: 3 cm–15 cm (1.2–5.9 in) ○ Medium: 20 cm–40 cm (7.9–15.7 in) ○ Large: >40 cm (>15.7 in). ● Describe the types of water diversions or intakes your innovation applies to. 	<p>Each Statement Scored on 1–6 Scale</p> <ul style="list-style-type: none"> ● The proposed solution clearly and effectively explains the proposed fish exclusion innovation.
Criteria 2: Technical Feasibility—Is your solution technically feasible?	
<p>Suggested Content You Provide</p> <ul style="list-style-type: none"> ● Describe specific installation strategies, including any special equipment needed for installation, in a narrative about how the device will be installed in a hypothetical water diversion or intake site. 	<p>Each Statement Scored on 1–6 Scale</p> <ul style="list-style-type: none"> ● The proposed solution clearly and effectively explains the proposed fish exclusion technical feasibility.

- Describe how your solution minimizes mortality, harm, and stress to fish encountering fish exclusion devices.
- Technology risks/challenges (e.g., equipment, material, or processes) associated with your concept and how they will be mitigated.
- The fish exclusion device principles and implementation strategy.
- Identify how your solution adequately addresses the method for effectively managing debris, sediment, ice, and biofouling.

Criteria 3: Market Feasibility—Can you prove the financial feasibility of your proposed solution, including the potential for commercialization and successful market adoption?

Suggested Content You Provide

- Describe the path to commercialization, including the identification of cross-cutting industry partnerships that would enable the development of the technology.
- The unique value proposition of your solution.
- The scalability of your solution to other market or technological applications.
- Describe any potential environmental or other risks and associated mitigation strategies.
- Additional consideration of end-user requirements or needs.

Each Statement Scored on 1–6 Scale

- The proposed solution clearly and effectively explains the proposed fish exclusion market feasibility.

Criteria 4: Research and Development Plan—What is your plan to achieve your goals?

Suggested Content You Provide

- Describe your strategy to develop a proof-of-concept of your technology, providing preliminary diagrams, or other materials.
- Provide a plan to meet your goals after the conclusion of the PITCH CONTEST Stage, including such things as estimated funding amounts to build your prototype, useful introductions and connections to stakeholders or customers, required testing facilities or equipment needed (both software and hardware), subject matter expertise, or any other relevant services, infrastructure, or partners that you think you will need.

Each Statement Scored on 1–6 Scale

- The proposed solution clearly and effectively explains the proposed fish exclusion research and development plan.

<ul style="list-style-type: none"> Describe your team’s readiness to meet your goals and if additional talent and resources are needed. 	
<p>Criteria 5: Overall Effectiveness—Did the pitch presentation clearly and effectively communicate the proposed innovation and feasibility for development and eventual commercialization?</p>	
<p>Suggested Content Your Presentation Will Include</p> <ul style="list-style-type: none"> Provide a clear and effective description of your innovation and how it is unique from incumbent solutions. Provide a clear and effective description of the technical feasibility of your innovation, including risk identification and proposed mitigation. Provide a clear and effective description of the market feasibility of your innovation including a path to commercialization. Provide a clear and effective description of the research and development plan for your innovation and how you would best utilize post-PITCH CONTEST support from PNNL. 	<p>Each Statement Scored on 1–6 Scale</p> <ul style="list-style-type: none"> The pitch presented for the fish exclusion innovation was clearly articulated, easy to follow, professional, addressed all five criteria outlined in the rules document, and was well-presented.

5.3 How We Determine Winners

The reviewers will comprise federal and non-federal subject matter experts with expertise in areas relevant to the competition. Reviewers will review Technical Narrative submissions according to the evaluation criteria described in Section 5.2.

Reviewer Panel Scoring: The scoring of submissions will proceed as follows:

- Reviewers will review the Technical Submission individually and assess the competitors’ response to each statement.
- Reviewers will score each statement between 1 and 6, depending on the degree to which the reviewer agrees that the Technical Submission reflects the statement.
- Reviewers will score the pitch presentation and score between 1 to 6, depending on the degree to which the reviewer agrees that the pitch presentation reflects the statement.
- The total scores from each reviewer will be averaged to develop a final score for the applicant. This score will inform the judges’ decisions on awarding prizes.

Final Determination: The Director of WPTO and the Science Advisor of Reclamation are the judges of the competition and will make the final determination of winners. Final determination of winners by the judges will take the reviewers’ scores and the interview findings (if applicable).

Announcement: Prize winners will be announced during the PITCH CONTEST and will receive a cash and an in-kind voucher that can be utilized to develop their concept beyond the PITCH CONTEST through September 30, 2021.³

General Submission Requirements

1. To participate visit the ideation platform at <https://www.herox.com/American-Made-Challenges> and click Login to register and join the Fish Protection Prize community.
2. Complete a submission online at <https://www.herox.com/fishprotection> before the contest closing date.

³ This date is subject to change as advised by WPTO.

Appendix 1— Additional Terms and Conditions

1. Requirements

Your submission for the Fish Protection Prize is subject to the following terms and conditions:

- You must post the final content of your submission or upload the submission form online at <https://www.herox.com/fishprotection> before the CONCEPT Stage closes. Late submissions or any other form of submission may be rejected.
- All submissions that you wish to protect from public disclosure must be marked according to the instructions in Section 1.1. Unmarked or improperly marked submissions will be deemed to have been provided with unlimited rights and may be used in any manner and for any purpose whatsoever.
- 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 caused by technical challenges.
- Your submission must be in English and in a format readable by Microsoft Word or Adobe PDF. Scanned handwritten submissions will be disqualified.
- Submissions will be disqualified if they contain any matter that, in the sole discretion of the DOE or the National Renewable Energy Laboratory (NREL), 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 any of the contest stages described in this document, these rules will form a valid and binding agreement between you and DOE, and 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 contest described here and to no other contest on the HeroX platform or anywhere else.
- The Prize Administrator, when feasible, may give competitors an opportunity to fix non-substantive mistakes or errors in their submission packages.

2. VERIFICATION FOR PITCH WINNER PAYMENTS:

The Prize Administrator will verify the identity of a participant selected to receive the prizes. Receiving a prize payment is contingent upon fulfilling all requirements contained herein. The Prize Administrator will notify winning participants using provided email contact information after the date that results are announced. Each participant will be required to sign and return to the Prize Administrator, within 30 days of the date the notice is sent, a completed NREL Request for ACH Banking Information form, and a completed W9 form (<https://www.irs.gov/pub/irs-pdf/fw9.pdf>). In 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; (iv) the submission or person/entity is disqualified for any other reason.

3. TEAMS AND SINGLE ENTITY PITCH AWARDS

The Prize Administrator will award a single dollar amount to the designated primary submitter whether consisting of 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.

4. SUBMISSION RIGHTS

By making a submission and consenting to the rules of the contest, a competitor is granting to DOE, the Prize Administrator, and any other third parties supporting DOE in the contest, permission to use the submission consistent with the Rules of this Prize. Portions of submissions that are marked as protected from public disclosure according to Section 11 of Appendix 1 will be treated accordingly. Potential uses of submissions include posting or linking to the non-protected portions of the submission on the Prize Administrator or HeroX platforms, 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, Prize Administrator, and judges for purposes of the contest, including, but not limited to, screening and evaluation purposes. The Prize Administrator and any third parties acting on their behalf will also have the right to publicize a competitor's name and, as applicable, the names of a competitor's team members and organization, and the abstract for their idea at the CONCEPT Stage on the contest website indefinitely.

By entering, a competitor represents and warrants that:

1. The competitor has not included third-party content (such as writing, text, graphics, artwork, logos, photographs, dialogue from plays, likeness 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 Prize 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 in the public domain without any limitations on use;
2. Unless otherwise disclosed in the submission, the use thereof by Prize Administrator, or the exercise by Prize Administrator or others acting on its behalf 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. The competitor is not and will not conduct any activity pertaining to this prize competition that would infringe upon any intellectual property right of any third party, such as any patent, copyright, trade secret, or other intellectual property right; and that it has exercised reasonable efforts and diligence in making this representation and warranty. The foregoing representation and warranty shall be ongoing during the course of this competition and will be considered to have been made again and as of the date of each subsequent stage of the competition in which the competitor participates.
4. 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 use 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 Prize Administrator to provide permission in writing.

5. 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 participant or that the participant has acquired sufficient rights to use and to authorize others, including DOE and Reclamation, 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 participant is aware, and that the submission is free of malware.

6. CONTEST SUBJECT TO APPLICABLE LAW

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

7. 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.

In the event of a dispute as to any registration, the authorized account holder of the email address used to register will be deemed to be the participant. The "authorized account holder" is the natural person or legal entity assigned an email address by an internet access provider, online service provider, or other organization responsible for assigning email addresses for the domain associated with the submitted address. Competitors and potential winners may be required to show proof of being the authorized account holder.

8. PUBLICITY

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

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.

9. 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 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 related entities 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.

In accordance with the delegation of authority to run this contest delegated to the Director of WPTO, the Director has determined that no liability insurance will be required of participants to compete in this competition per 15 USC 3719(i)(2) in the Stage I: CONCEPT Stage. The Director will evaluate possible activities in the rest of the stages and make additional determinations. Participants may be required to obtain liability insurance in future stages.

10. SUBMISSION MARKING AND Freedom of Information Act

All materials submitted to DOE as part of a submission become DOE records. Any confidential commercial information contained in a submission should be designated in writing at the time of submission.

Participants are required to employ protective markings in the following manner:

The cover sheet of the submission must be marked as follows and identify the specific pages containing trade secrets or commercial or financial information that is privileged or confidential:

Notice of Restriction on Disclosure and Use of Data:

- Pages [list applicable pages] of this document may contain trade secrets or commercial or financial information that is privileged or confidential and is exempt from public disclosure. Such information shall be used or disclosed only for evaluation purposes. The Government may use or disclose any information that is not appropriately marked or otherwise restricted, regardless of source. [End of Notice]
- The header and footer of every page that contains trade secrets or commercial or financial information that is privileged must be marked as follows: "May contain trade secrets or commercial or financial information that is privileged or confidential and exempt from public disclosure."
- In addition, each line or paragraph containing trade secrets or commercial or financial information that is privileged or confidential must be enclosed in brackets.

Competitors will be notified of any Freedom of Information Act (FOIA) 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 FOIA representative prior to the release of materials.

11. 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.

Federal employees are subject to the non-disclosure requirements of a criminal statute, the Trade Secrets Act, 18 USC 1905. The Government may seek the advice of qualified non-federal personnel. The Government may also use non-federal personnel to conduct routine, nondiscretionary administrative activities. The respondents, by submitting their response, consent to the Office of Energy Efficiency and Renewable Energy providing their response to non-federal parties. Non-federal parties given access to responses must be subject to an appropriate obligation of confidentiality prior to being given the access. Submissions may be reviewed by support contractors and private consultants.

12. 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 contest, as determined by DOE in its sole discretion, DOE may cancel the contest.

Although DOE indicates in the Fish Protection Prize Stages that it will select up to several winners for each stage, 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.

DOE reserves the right to request additional and/or required documentation from the competitors within a reasonable time after the close of the competition.

13. PRIZE ADMINISTRATOR

The Prize Administrator is the Alliance for Sustainable Energy, LLC, operating in its capacity as the Managing and Operating Contractor for NREL. WPTO is the Federal Agency sponsor of the prize.

14. NATIONAL ENVIRONMENTAL POLICY ACT COMPLIANCE

DOE's administration of the Fish Protection 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/>.

15. VOUCHER FUNDING

Labs and participants will enter into a suitable agreement for the 50 hours of assistance, e.g., Short Form CRADA, technical assistance agreement, or other agreement for conducting work that is authorized under the Lab's Management & Operating Contract and is acceptable to the Lab Contracting Officer. Vouchers are part of the Grand Prize winners' prizes purse. DOE funds have been provided directly to PNNL to conduct a mutually agreed upon scope of work between PNNL and the winner. Vouchers will be conducted under a Cooperative Research and Development Agreement (CRADA), the template for which is available as a resource on the HeroX website. The vouchers are time-limited and are for use through September 30, 2021. These vouchers cannot be used to subcontract out to any third parties.

16. Judge Conflict of Interest

The judge of this prize may not (a) have personal or financial interests in, or be an employee, officer, director, or agent of any entity that is a registered participant in the prize; or (b) have a familial or financial relationship with an individual who is a registered participant.

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