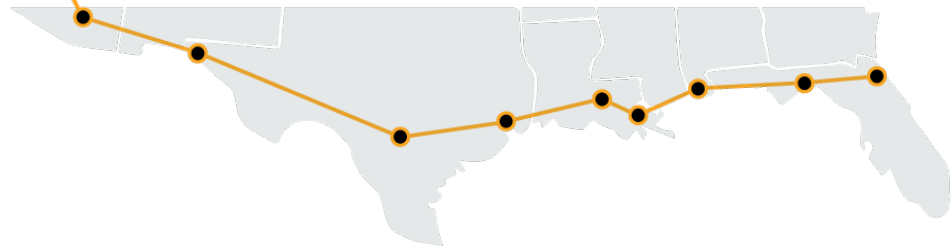


# **10 PRIZE**

**CLEAN COOLING STUDENT COMPETITION**



## **OVERVIEW PACKET**

(Last updated 9.5.23)

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## About the Competition Sponsors



Positioned on the front lines of demographic, social, economic, and climate change, the U.S. Interstate 10 corridor (including California, Arizona, New Mexico, Texas, Louisiana, Alabama, Mississippi, and Florida) presents the challenges of the 21st century in their most extreme. Ten Across recommends this singular transect as an observatory for the nation as a whole, one trained on critical trendlines and our capacity to respond to a knowable future. This geography is where the impact of global warming is already being felt in the most extreme as it relates to water, energy, drought, flooding, and immigration.

Ten Across, an [Arizona State University](#) initiative, provides an optimal testbed for strategies to adapt to what will continue to be an increasingly difficult and volatile environment. Together with our growing network, we engage the conditions found within this transect to reveal our collective capacity to create a more resilient and sustainable future.

More information about Ten Across is available at [10Across.org](https://10Across.org).



This competition is made possible through funding by The Clean Cooling Collaborative (CCC). CCC is a philanthropic initiative of ClimateWorks Foundation that is working to create a future with efficient, climate-friendly cooling for all. More information is available at [CleanCoolingCollaborative.org](https://CleanCoolingCollaborative.org)

# 2023 Competition Background

## Introduction

The most recent UN IPCC Report highlights a troubling heat trajectory—the planet is getting hotter and disadvantaged communities are being hardest hit. Recent analysis from First Street Foundation predicts an “extreme heat belt” may form in the U.S. by 2053 with 107 million Americans seeing temperatures above 125 degrees Fahrenheit. In some cases, populated areas will become virtually unlivable, while others will continue to experience and adapt to more intense and frequent heat waves with poorer and underserved communities being impacted the most.



As record-breaking heat waves become the new normal, energy-intensive and greenhouse gas-emitting air conditioning has become the go-to solution. Those most vulnerable to extreme heat often do not have the financial resources to pay for these systems nor are they able to afford newer more climate-responsive dwellings. This is compounded by the fact that current technologies contribute to the increase of greenhouse gas emissions making it imperative that alternative, affordable, and scalable solutions— whether mechanical, passive, or policy-driven—be developed to meet the growing cooling and environmentally critical needs of a hotter planet.

This scenario is playing out along the United States’ southernmost region most profoundly. Roughly tracking the U.S. I-10 from coast-to-coast, the Ten Across geography provides a through-line to some of the fastest-growing, most diverse, and now hottest cities, suburbs, and rural communities in the U.S. This is an area where heat mitigation that provides affordable, clean, and equitable cooling solutions is urgently needed now and for the future.

# About the Competition

## Overview

To meet the challenge of an ever-warming planet, this competition addresses the issue of scalable clean cooling solutions for communities most vulnerable to extreme heat to foster innovation and viable solutions. The Ten Across Clean Cooling Student Competition is one of the latest commitments by the Ten Across initiative to achieve a more equitable and resilient future.

As the planet warms and populations continue to grow along the I-10, urban heat poses a looming threat to our most vulnerable populations. Communities and individuals alike desperately need affordable and equitable cooling solutions. This competition awards creative cooling solutions, from technological innovations to policy and passive solutions. Teams of students and faculty from colleges and universities residing in eight states along the Interstate 10 corridor (California, Arizona, New Mexico, Texas, Louisiana, Mississippi, Alabama, and Florida) are invited to participate in this competition.

Teams of 3-5 students with a faculty sponsor will bring together different study areas, skill sets, and perspectives to ensure a comprehensive and diverse approach to the competition challenge. Each team must also include a community implementation partner, such as a municipality, community foundation, or nonprofit organization.

## Jury

Reflecting the multidisciplinary nature of the competition, Ten Across selects jurors from diverse backgrounds to evaluate team submissions, choose the finalists, and ultimately select one winner from among the finalists. While there is no official prescription for the composition of the jury, it may include a strategic mix of industry, academic and community thought leaders.

In agreeing to serve as members of the competition jury, the jurors attest that they have reviewed the competition program and agree to abide by the rules, regulations, and guidelines as stated.

## Eligibility

Ten Across invites the participation of teams of students (undergraduate and/or graduate level) and faculty from colleges and universities residing in states that the U.S. Interstate 10 transects (including California, Arizona, New Mexico, Texas, Louisiana, Alabama, Mississippi, and Florida). Teams include 3-5 student members with a faculty sponsor, bringing together different study areas, skill sets, diverse backgrounds, and perspectives to ensure a comprehensive approach to the competition challenge. Confirmation of student status as of January 2024 at their respective college or university will be required. Ten Across reserves the right to disqualify teams or to limit the number of teams allowed to participate in the competition.

# The Competition Challenge

## Defining the Challenge and Opportunity

Competition proposers will identify a specific geography where extreme heat is a challenge for an underserved community most vulnerable to extreme heat challenges. The location, scale, people to be served and other particulars should be well-documented. Proposals should also identify an implementation partner, such as a local community-based organization, municipality, or institutional partner which can help to refine responses and is prepared to help implement a solution if a prize is awarded. A letter of support for the student team is required. Emphasis should be placed on identifying a partner whose work addresses systemic change through coalition building, civic engagement, and direct community support.

## Solution Options

Proposed solutions may come in any form including designs for physical structures, alterations to existing conditions, new materials, health related ideas, policy or procedural innovations, and financial options— essentially anything that brings the benefits of clean cooling to an underserved, vulnerable place and people—regardless of scale. This approach to open innovation excels when the aperture is left open as wide as possible, so applicants can be creative in their solutions. The scoring rubric will select solutions most likely to achieve the best results.

This is an ideas competition but one with an intent to prototype, and if successful, implement the winning solution. To that end, we will ask applicants to submit a proposal suggesting how they would bring their idea to life in a real-world setting in collaboration with the implementation partner (foundation, city resiliency lead, and community/non-profit organization).

## Awards

On February 14, 2024 Ten Across will announce the top five finalists. Finalists will have the opportunity to pitch for the grand prize of \$100,000 to implement their project. The remaining four finalists will be awarded \$10,000 following their pitch to the distinguished judging panel.

All approved projects will be eligible for the Peoples' Choice Award. An additional \$10,000 will be awarded to the People's Choice.

The grand prize will be distributed as follows: \$50,000 will be awarded to the community partner to support their commitment towards implementation, \$100,000 will be awarded to the college a portion of which will be allocated towards prototype implementation as outlined in the project plan and budget sheet.

## Deliverables

A digital template will be provided in the competition portal where proposers can present their concepts and submit them to the competition organizers. This will include opportunities for text, images, video, and other mixed media submissions. Entries will attach an estimated implementation budget to each project to aid in the assessment.

## Competition Checklist

The following list includes all the items available for download from the **10X Prize Open Water Portal** and serves as a checklist to ensure that you receive all the resources:

- All submissions will be accepted only in the 10 Across Prize Open Water Portal
- Bibliography, all citations in APA format
- Project Plan and Budget, see provided template
- Partner letter of support
- College or University Letter of Intent
- Presentation Slides
- Fast pitch video (2-minutes)
- Unofficial transcripts indicating current enrollment as of January 2024
- Faculty lead name, contact information and link to current biography

Access to the portal is available from the 10X website at [10across.org/10Xprize](https://10across.org/10Xprize).

## How You May Use Downloaded Materials

- You may download competition resources for distribution only among your team members, faculty advisers, and professional advisers.
- You may only use competition resources for this competition. You may not use, copy, or distribute these resources for any other purpose without written permission from Ten Across.

## Presentation Requirements

- Ten Across has developed the presentation requirements for the benefit of both competitors and the jury. These requirements ensure that the jury will have enough information to evaluate and compare solutions to this challenge.
- Effective presentation of your solution is crucial for success: your submission may have great ideas, but if your materials do not present these ideas clearly, your submission will not compete well.
- While teams may choose to depart from some aspects of the brief, disregarding presentation requirements and guidelines entirely, or not addressing the fundamental goals of the brief, may place your team at a disadvantage.

## Criteria for Judging

The jury will select finalists that it deems have best satisfied the goals of the challenge outlined above and the combination of criteria described below.

Specifically, proposals should strive to meet the following criteria:

- Project Questionnaire
- Suitability of the proposed solution to the identified context
- Potential to reduce heat impacts on those most vulnerable in the community
- Environmental impact
- Innovation, feasibility, and scalability

The jurors also will rely on their knowledge and expertise in design, climate innovation and implementation. While the jury may not ignore any of the above criteria, it may, if it wishes, use additional criteria in making its final decisions.

Ten Across strives to conduct a thorough, fair, and rigorous jury evaluation process, yet teams need to consider the realistic constraints on, and limitations of, the jury. Teams should make their video presentations as clear and easy to understand as possible given the large number of submissions and the limited time the jurors have available to review each one. The jurors Ten Across selects are leaders in their fields and generously donate their time to the Ten Across Competition. Jurors will not have extensive time to delve into every detail of every proposal, nor will they have the capacity to provide lengthy detailed feedback. Just as in the real world in which developers and designers have a finite window in which to present themselves, your team should strive to make a meaningful first impression by packaging your solution in a compelling and succinct fashion that invites additional analysis of the proposal.

## Competition Logistics

Specific details of the schedule are subject to change. Please refer to the Ten Across website [10across.org/10Xprize](https://10across.org/10Xprize), or email [rae.ulrich@asu.edu](mailto:rae.ulrich@asu.edu) for relevant updates.

### General Competition Schedule

- Competition Announced – April 2023
- Competition Launches – September 5, 2023
- Intent to Apply Deadline – November 15, 2023
- Application Deadline – January 31, 2024
- Finalists Announced – February 14, 2024
- Pitch Presentations – March 7, 2024
- 10 Across Prize Winning Team Announced – March 8, 2024
- Prototyping and Testing Executed – March-December 2024



## Submission Process

- Each team member will need to create an Open Water account and profile.
- Form a collaborative team in the 10X Prize Open Water Portal
- Utilize the templates (budget, project implementation, presentation, etc.)
- **Submit your materials in Open Water by January 31, 2023**
- Ten Across will not accept—and the jury will not review—any supplemental diagrams or information that you do not present directly on the sheets described above under “Required Presentation Materials.”

## Submission Deadline

1:00 p.m. AZ MST January 31, 2024

## Final Competition Requirements

Ten Across will share additional program rules and guidelines for the finalist stage of this competition with the finalist teams. The final rules and brief will be available online after the competition concludes.

## Questions

During the competition, teams may send questions in writing via email to [rae.ulrich@asu.edu](mailto:rae.ulrich@asu.edu). Ten Across will periodically post questions and answers in the **Frequently Asked Questions** located on the login page on the 10 Across Prize Open Water Portal. Ten Across reserves the right to edit submitted questions before posting them on the website. Ten Across also reserves the right to not answer all questions posted on the website. Please do not post redundant questions or remarks deemed inappropriate or irrelevant. Please make sure you are monitoring your team email address during the competition period.

**Thank you for joining this year’s competition and best of luck!**