

Bold Leaps and Action

Innovations in Climate Resilience Conference

March 28-30, 2023 | Columbus, Ohio



Join the climate resilience effort and present your new work that breaks the status quo and creates a leap forward to impact climate change.

Building upon the success of the 2022 inaugural event, ICR23 continues the mission of leading innovations in climate resilience with the theme "**Bold Leaps and Action**." The focus areas of the conference include restoring our ecosystems, enabling adaptation of our built infrastructure and societies, improving human health, boosting national security, securing the food supply, and dramatically reducing the trajectory of causative factors.

ICR22 was a first-of-its-kind event focused on innovations and solutions for climate resilience. Leaders from the White House, Department of Energy, National Labs, Department of Defense, industry, and academia convened to explore breakthroughs in technology, policy, and infrastructure that will help mitigate the existential threats that climate change poses to our environment, health, communities, national security, and economic well-being. Attended by world-leading environmental professionals, the platform talks, breakout sessions, and posters introduced transformative ideas that changed perspectives on the path forward in climate resilience. An archive of ICR22 keynote videos can be found **here**.



ICR23 Location

The Conference will be held at the Greater Columbus Convention Center (400 N. High St., Columbus, OH, 43215) and adjoining Hyatt Regency Columbus



Technical Program

Abstracts due September 30, 2022.

March 28: Opening Session

March 28-30: Technical programming with keynotes, platform talks, panel discussions and evening poster sessions with cocktail receptions

The program will emphasize field applications, case studies, technology solutions and test beds, but submissions on fundamental research and modeling studies are also encouraged.

The technical program themes:

- Climate Risk Analysis and National Security
- · Resilient Built Infrastructure
- Ecosystem Restoration, Sustainability and Other Innovative Climate Solutions
- Convergence with Health: Tools and Innovations to Prevent or Combat Climate Effects on Health
- Net-Zero Economy: Energy Technology, Decision-Making, and Capacity Expansion

Abstracts due September 30, 2022.

The program will be developed based on the abstract review conducted by the Program Committee and the Session Chairs. (See page 4 for the anticipated scope of the technical program and page 5 for information on preparing and submitting an abstract.)

Submit your abstract today

Technical Program Committee

Conference Chairs

Amy Heintz

Technical Fellow, Battelle

Justin Sanchez

Technical Fellow, Battelle

Technical Steering Committee

Andy Bochman

Senior Grid Strategist-Defender, National and Homeland Security Directorate, Idaho National Lab

Jill Brandenberger, M.S.

Climate Security Program Manager, Pacific Northwest National Laboratory

Sharon Burke

President and Founder, Ecospherics

Alice Caponiti

Deputy Assistant Secretary, Office of Nuclear Energy, Department of Energy

Jill Engel-Cox, Ph.D.

Director of the Joint Institute for Strategic Energy Analysis, National Renewable Energy Laboratory

Ralph T. Muehleisen, Ph.D., PE, LEED AP, FASA

Argonne National Laboratory

Francis Wiese, Ph.D.,

Science Director, Climate Solutions, Stantec



The Conference is Organized and Presented by Battelle

Battelle's environmental engineers, scientists and professionals offer focused expertise to government and industrial clients in the U.S. and abroad. Combining sound science and engineering solutions with creative management strategies, Battelle works with clients to develop innovative, sustainable and cost-effective solutions to complex problems in site characterization, assessment, monitoring, remediation, restoration, and management.

Every day, the people of Battelle apply science and technology to solving what matters most. At major technology centers and national laboratories around the world, Battelle conducts research and development, designs and manufactures products and delivers critical services for government and commercial customers. Headquartered in Columbus, Ohio, since its founding in 1929, Battelle serves the national security, health and life sciences and energy and environmental industries.



Conference Partners

The Conference is Organized and Presented by Battelle in partnership with the following National Laboratories.





















SPONSORSHIP OPPORTUNITIES

For information about sponsoring specific Conference events, see the **Conference Sponsors** page.



Technical Program Scope

Examples of anticipated presentation topics are listed below. The list is numbered to provide an easy means of referencing these topics on your abstract submittal form; see the "Abstracts Submission" paragraph on page 5.

Please note: The following is not a list of sessions, nor is it a comprehensive list of topics. Abstracts are welcome on all relevant topics within the focus of climate resilience.

Climate Risk Analysis and National Security

- 1a. Translation of Climate and Multi-Sector Models into Decision Making.
- **1b.** Geopolitical Impacts of Climate Risk Including Change in Population Centroid Due to Migration and Impact on Supply Chain, Energy and Communication Infrastructure, and Economic Security.
- 1c. Geoengineering Approaches to Reduce Uncertainty in Ecological and Security Risks.
- 1d. Case Studies that Prioritize Infrastructure Resilience Policies and Actions Based on Consequence.

Resilient Built Infrastructure

- 2a. Innovations in Material Design to Enable Adaptation or Hardening.
- 2b. Infrastructure Systems that Address Sequential or Compounded events.
- 2c. Nature-Based Solutions for Climate Resilient Infrastructure Design.
- 2d. Climate Resilient Infrastructure and Climate Justice.

Ecosystem Restoration, Sustainability and Other Innovative Climate Solutions

- **3a.** Technologies to Enable Circular Economy.
- **3b.** Sustainable and Climate Resilient Food Production and Agriculture (Soil Health, Drought Resistance, Alternative Protein, Controlled Environment Agriculture).
- 3c. Testbeds to Monitor Ecosystem Health and Response to Disturbances.
- **3d.** Large-Scale CO2 or Greenhouse Gas Capture and Storage.

Convergence with Health: Tools and Innovations to Prevent or Combat Climate Effects on Health

- **4a.** Environmental Justice Metrics and Strategies to Quantify, Reduce, and Counteract the Effects of Climate Change (e.g., Drought, Flooding, and Movement) and Address the Underlying Health Inequities Created by Climate Change.
- 4b. Role of Climate Effects on Emergence of Infectious Disease, Antibiotic Resistant Organisms and Interventions.
- 4c. Geo-Designing of Built Environment or "Design Cities of Tomorrow."

Net-Zero Economy: Energy Technology, Decision-Making, and Capacity Expansion

- **5a.** Transition of High-Emission Products to Low-Emission Products.
- **5b.** Transformation and/or Acquisition of New Physical Assets: Stable/Carbon Emission-Free Systems and their Transition without Disruption.
- 5c. Vulnerabilities and Resilience Approaches for Clean Energy Supply Chains.
- 5d. Jobs and the Reallocation of Labor: Optimizing Socioeconomic Benefits and Training for Net Zero.
- **5e.** Improved Modeling Methods for Utility Capacity Expansion.



Abstract Preparation and Submittal

Abstracts are due September 30, 2022.

The abstract submission portal will remain open until we reach program capacity and the agenda will be finalized after a multilevel review by the Technical Program Committee. To ensure full opportunity for placement in the program, abstracts should be submitted no later than September 30, 2022. Abstracts must be well-written to clearly and concisely outline the material being proposed for presentation. Abstracts with a pronounced commercial slant will not be accepted. Abstracts must convey the information reviewers will need to assess the scope of the work and the data likely to be available at the time of the presentation, determine its relevance, compare it with other proposed presentations, and, if accepted for the program, assign it to an appropriate session.

Format, Content & Required Subheadings. Abstracts must be in English and cannot exceed one standard-size page. Format requirements and an example abstract are available on the **Abstract Specifications and Submittal** page.

NOTE: Abstracts must be organized under the following required subheadings: 1) Background/Objectives, 2) Approach/Activities, and 3) Results/Lessons Learned.

Abstract Submission. Abstracts are to be submitted online only via the link on the **Abstract Specifications and Submittal** page. Abstracts submitted by email will not be accepted or reviewed. The submittal form will require complete contact information (postal mailing address, phone number, and email) for the corresponding/presenting author and for all co-authors. **Session placement suggestions may be entered on the submittal form**. However, acceptance, final placement, and format preference cannot be guaranteed. Final decisions will be based on the best overall design of the Conference program.

Notification of Acceptance/Placement. In late January 2023, the corresponding/presenting author of each abstract will be notified by email of the placement decision. If the abstract is accepted, this email will state the session and format to which it has been assigned and provide information on preparing the presentation.

Inquiries. Questions about abstract preparation and submittal should be addressed to climateconf@battelle.org.

Submit an Abstract for the 2023 Conference

No financial assistance is available to support registration or other costs of attending the Conference. All presenting authors and session chairs are expected to register and pay the applicable technical-program registration fees.

This policy is necessary because registration fees are the major source of funding for the Conference and a significant percentage of registrants will make presentations or chair sessions.



Live Demonstrations

Proposals are due October 31, 2022.

Generate exposure, demonstrate use, or solicit feedback for a technology, software, prototype, or tool in hands-on demonstration, or user experience.

Anyone may submit a live demonstration proposal. Selection decisions will be based on the best overall design of the Conference program. In general, live demonstration presenters should plan for approximately 20-minute presentations. Final presentation length will be communicated to the submitter upon acceptance.

Submit a Live Demonstration Proposal

Lightning Talks

Proposals are due October 31, 2022.

Any cutting-edge, breakthrough technology, relevant to the overall technical scope of the Conference, is welcome. Young professionals (5 years or less since highest degree conferred) are encouraged to submit a lightning talk proposal.

A panel of experts will judge the applicable talks. Review criteria will include originality of the research, thoroughness of the technical approach, validity of data interpretation, and relevance to the overall scope of the Conference. In general, lightning talk presenters should plan for no more than 5-7 minute presentations and one PowerPoint® slide.

Submit a Lightning Talk Proposal

Registration

By October 30, 2022, a link to online registration will be available on the **Registration** page.

The following technical program registration fees cover admission to all technical sessions and keynote presentations, daily continental breakfasts, beverage breaks, group lunches, and the Tuesday and Wednesday evening poster receptions.

	Paid by January 20, 2023	Paid after January 20, 2023
Industry	\$900	\$950
Government	\$850	\$900
University*	\$650	\$700
Student**	\$400	\$450

Registration discounts apply only to payments received by the specified dates.

^{*} The university fee applies to full-time faculty and other teaching and research staff, including post-doctoral students.

^{**} The student fee is reserved for full-time students through PhD candidates whose fees will be paid by their universities or who will not be reimbursed for out-of-pocket payment. Documentation of current college or university enrollment is required.



Registration terms and conditions are subject to change without notice and are applicable to all levels of registration. No one under 18 years of age will be admitted to any Conference event unless registered as a student; valid college or university student ID required at check-in.

Payment. Payment is required to confirm registration and registration discounts apply only to payments received by the specified dates. Checks will be accepted for registrations made through January 20, 2023. Beginning January 21, 2023, payment can only be made by major credit card. Purchase orders will not be accepted at any time. Fees are not transferable to other Battelle Conferences. Conference information meant for attendees only (e.g., Conference-specific links, abstracts, etc.) will be sent only to individuals that have paid in full.

Conference Venue & Hotels

The Conference will be held at the Greater Columbus Convention Center (400 N. High St., Columbus, OH, 43215) and adjoining Hyatt Regency Columbus (350 N. High St, Columbus, OH, 43215). Information on room rates and reservation options will be available on the Venue: Hotel and City page in October 2022. The Hyatt Regency Columbus is conveniently connected to the Greater Columbus Convention Center and offers easy access to the Conference session rooms.

Conference Room Block. A block of rooms has been set aside at the Hyatt Regency Columbus for Conference attendees. The rates below are in effect for reservations made by March 10, 2023, unless rooms in the block sell out before that date. The Conference group rate may be used for check-in as early as March 25, 2023, and check-out as late as April 2, 2023; subject to availability of rooms at the time reservations are made.

The group rate at the Hyatt is \$183 per night (single/double) plus applicable taxes, fees, and assessments.

A percentage of rooms will be available at the prevailing U.S. Government per diem rate (plus tax) for U.S. federal, state, and local government employees, not applicable to government contractors. Government ID will be required at check-in for verification for rooms reserved at the government rate.



The Climate Conference has group rate agreements with only the Hyatt Regency Columbus. We have not partnered with any travel agency or third-party for travel/hotel discounts. If you receive a call or an email offering assistance in making hotel reservations or changing existing reservations, we advise caution. The Conference has no agreement with any organization to contact participants and offer reservation assistance, nor have we provided attendee contact information to anyone for that purpose.

Please use only the reservation links provided on the Conference website (available in October 2022) to make hotel reservations.

Inquiries | Program Management | Climate Conference Office | climateconf@battelle.org

Registration & General Inquiries | Susie Warner (The Scientific Consulting Group, Inc.)

Climate2023@scgcorp.com | phone: 301.670.4990 | fax: 301.670.3815

08/24/22