



FINAL PROGRAM

Climate Change 2022: Commitments to Actions

Virtual Conference • November 29-30, 2022

www.awma.org/climatechange

FINAL PROGRAM

GENERAL INFORMATION

CONFERENCE OVERVIEW

The Air & Waste Management Association's international conference on climate change will focus on the commitments and actions required to achieve carbon neutrality and bolster resiliency as society adapts to inevitable climate change impacts.

The conference will address emerging policies and strategies for tackling climate change impacts, including mitigation, adaptation and resiliency, along with GHG policies and initiatives and innovative technologies. The event will also emphasize advances in policies since the global 2015 Paris Accord and the climate commitments made at the COP26 and COP27 UN Conference on Climate Change.

REGISTRATION

Register online at www.awma.org/climatechange.

Registration includes access to all live sessions, panels, and presentations offered online during the conference, plus recordings of the presentations online for three months following the conference.

Online registrants will receive a confirmation and receipt, which they can access at any time by logging into their account. Your registration will not be processed without payment.

A few days prior to the conference, registrants will receive instructions on how to access the links for the virtual conference.

CONFERENCE COMMITTEE

Conference Co-Chairs:

Chris Easter, Environmental Science Associates (ESA)
Joshua Fu, University of Tennessee

Committee Members:

Chih C. Chao, Cantech Environmental Services
Michael Conrardy, AECOM
Sardar Hassan, U.S. Department of Defense
Harish Rao, Rao Consulting Services
C. Flint Webb, Leidos

CONFERENCE PROCEEDINGS/ON DEMAND ACCESS

Conference proceedings will include recordings of the live sessions and slides from presenters who have provided permission. The online proceedings will be accessible from the virtual conference website for three months following the conference. Attendees will be notified when the recordings and slides have been posted.

CONTINUING EDUCATION UNITS

Conference attendees may be eligible for continuing education credits and can apply to receive a Certificate of Participation for the sessions attended. For more information, please contact Gloria Henning at +1-412-904-6021 or glhenning@awma.org.

ABOUT THE AIR & WASTE MANAGEMENT ASSOCIATION

A&WMA is a not-for-profit, nonpartisan professional organization that enhances knowledge and expertise by providing a neutral forum for technology exchange, professional development, networking opportunities, public education, and outreach to more than 5,000 environmental professionals in 65 countries. A&WMA also promotes global environmental responsibility and increases the effectiveness of organizations to make critical decisions that benefit society. For more information, please visit www.awma.org.

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TECHNICAL AGENDA – Tuesday, November 29

OPENING KEYNOTE SESSION

10:00 am – 11:00 am ET

Welcome and Introduction

Nancy E. Meilahn Fowler, Kleinfelder, A&WMA President; Joshua Fu, University of Tennessee, Conference Co-Chair

EPA and Biden-Harris Administration Actions to Tackle the Climate Crisis

Vicki Arroyo, Associate Administrator for Policy, Office of Policy, U.S. EPA



Vicki Arroyo

CARBON NEUTRALITY PANEL

11:00 am – 1:00 pm ET

Chair: Chris Easter, ESA

This panel takes a deep dive into emerging clean technologies and innovative approaches to achieving carbon neutrality including a wide variety of renewable fuels, energy efficiency technologies, electrification, improved battery technology and the use of off-site mitigation known as carbon offsets. The panel will also discuss additional critical emerging tools such as carbon capture and sequestration, and even geoengineering if global warming pathways appear to become more extreme, as well as the adaptation and resilience necessary to survive and thrive in a difficult environment.

Panelists:

- Jeff Caton, *Climate Services Program Manager, ESA*
- Lizzie Aldrich, *Vice President of Business Development, Anew*
- Jami Goldman, *Sustainability Program Manager, CSAA Insurance Group*
- Gabriel Olson, *Director, Carbon Strategy and Sustainability, BayoTech*
- Brian Schuster, *Community Sustainability Director, ESA*

1:00 pm – 1:15 pm ET

Break

SESSION 1: CLIMATE CHANGE SOLUTIONS AND PRACTICES

1:15 pm – 3:00 pm ET

Chair: Chih C. Chao, Cantech Environmental Services

CC09

Solar Parking Lots, a Sustainable Approach to Decarbonization

Hoda Fakour, Chang Jung Christian University, Tainan City, Taiwan; Moslem Imani, Shang-Lien Lo, National Taiwan University, Taipei, Taiwan; Mei-Hua Yuan, Academia Sinica, Taipei, Taiwan; Chih-Kuei Chen, National I-Lan University, I-Lan City, Taiwan; Shariat Mobasser, Purdue University, West Lafayette, IN; Isara Muangthai, Solent University, Southampton, United Kingdom

CC04

Driving to Net Zero with Emissions Intelligence

Kerry Weichsel, Iconic Air, Pittsburgh, PA; Paul Espenan, Diversified Energy

CC07

Integration of Climate Risk Assessment into Evaluating Business Decisions

Jennifer Pohlman, Trinity Consultants, Kent, WA

CC12

Reducing the Climate Impacts of Concrete: Training the Next Generation of Civil and Environmental Engineering Students

Christian M. Carrico, Isabel Morris, New Mexico Institute of Mining and Technology, Socorro, NM

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TECHNICAL AGENDA – Wednesday, November 30

CLIMATE CHANGE INTERNATIONAL PERSPECTIVES PANEL

10:00 am – 11:45 am ET

Chair: Joshua Fu, University of Tennessee

Climate Change Economics and Politics

Mizan R. Khan, Deputy Director, International Centre for Climate Change & Development, Independent University, Bangladesh

Introduction to Taiwan's 2050 Net-Zero Pathway

Young Ku, Chair Professor, Department of Chemical Engineering, National Taiwan University of Science and Technology, and Chief Executive Officer, Taiwan Institute for Sustainable Energy

United Nations Climate Change Conference (COP27) Update

Brian Bunger, Partner, Holland & Knight, A&WMA Immediate Past President

11:45 am – 12:00 pm ET

Break

SESSION 2: CLIMATE CHANGE MITIGATION CHALLENGES AND ISSUES

12:00 pm – 2:00 pm ET

Chair: Harish Rao, Rao Consulting Services

CC02

What Do the Latest U.N. Science Reports Tell Us About the Climate Mitigation Challenge?

Frank Princiotta, U.S. EPA (retired)

CC01

EJ Issues in Climate Mitigation – Environmental Justice: Born in the South, Flourishing in the North, and What to Expect Next

Chris Whitehead, Enviro-Sciences (of Delaware), Inc.

CC08

Trustworthy Data: An Essential Element for Climate Change Mitigation

Ram Ramanan, Rakesh Sreekumar, Sunil Cherian, Copperwire Systems Inc.

CC05

The Role of the United States in Confronting Climate Gridlock

Daniel Cohan, Rice University, Houston, TX

2:00 pm – 2:15 pm ET

Break

SESSION 3: CLIMATE DATA AND IMPACTS

2:15 pm – 3:40 pm ET

Chair: Chih C. Chao, Cantech Environmental Services

CC03

Effects of Land Use and Climate Change on Soil Erosion

Suraj Kumar Maurya, Prabuddh Kumar Mishra, Amity University, Noida, India; Vartika Singh, Shivaji College, University of Delhi, New Delhi, India; Kesar Chand, G.B. Pant National Institute of Himalayan Environment, HRC, Mohal, Kullu, India

CC11

Gaining Insights into Positive Measurement Bias of Nitrogen Dioxide in an Ambient Monitoring Station in Fort Saskatchewan, Alberta

Charles A. Odame-Ankrah, Kelly Pickerell, Sanjay Vaswani, Brian Rosentreter, Global Analyzer Systems Ltd., Calgary, AB, Canada; Harry Benders, Fort Air Partnership, Fort Saskatchewan, AB, Canada; Dieter Kita, Kita Consultations LLC, Peterborough, NH

CC06

Real-time Analysis of Aerial Images Using Deep Learning to Identify Critical Areas in Natural Disasters

Nidhya Shivakumar, The Harker School, San Jose, CA

3:40 pm ET

Conference Wrap-Up and Closing Remarks

Chris Easter, ESA, Conference Co-Chair