

UMassAmherst

The Inaugural UMass Energy Forum (UMEF)

Tuesday, May 4, 2021 | 5:30 - 7:45 pm

UMEF is an initiative for students, faculty, and staff across the UMass Amherst campus to present their work on clean energy, climate, and decarbonization.

Collaborating Units:

*UMass Energy Transition Institute, UMass Wind Energy Fellows Program,
UMass Clean Energy Extension, and the UMass iCons Program*

5:30 - 5:35 pm | Welcome

5:35 - 7:00 pm | Student Poster Sessions exploring research and climate action on the UMass Amherst campus and across the world.

Presentation information and Zoom breakout rooms are listed on the second page.

5:35 - 6:15 pm - Session A

6:20 - 7:00 pm - Session B

7:00 - 7:45 pm | Panel Discussion on equity and resilience in a clean energy system with members of the ELEVATE program.

ELEVATE is a Ph.D. program that trains students to solve technical, equity, and climate challenges in the energy transition.

Panelists: **Paola Furlanetto**

Ph.D. student in Mechanical and Industrial Engineering

Krista Harper

Professor of Anthropology and Public Policy, Acting Director of the Institute for Social Science Research (ISSR)

Jay Taneja

Assistant Professor of Electrical and Computer Engineering

Brian Yellen

Research Assistant Professor of Geosciences

Erin Baker - Moderator

Associate Dean of the College of Engineering, Professor of Industrial Engineering, Faculty Director of the Energy Transition Institute (ETI)

Student Poster Sessions

Each presentation will take place in separate Zoom breakout rooms.

Session A | 5:35 - 6:15 pm

Breakout Room 1

Low-Temperature Hot Water: Will UMass Be Using More or Less Water?

Carly Bell, Ariel Fine, and Marley Norton

Breakout Room 2

Smart Buildings, Green Campus

Callista Macpherson, Lucia Pan, Jake Talmer, and Kieran Tay

Breakout Room 3

PPAs and UMass' Plan for True Carbon Neutrality

Samantha Chasalow, Antonio Escallon, Kathryne Lovell, and Amelia Navarre

Breakout Room 4

Environmentally Friendly Geothermal Heat Exchanger

Nicholas Capra, Lauren Gustafson, and Ariel Waldman

Breakout Room 5

Campus Stakeholder Perspectives on Carbon Mitigation

Jessica Avery

Breakout Room 6

Roads to Renewable Energy: Solar Thermal Asphalt

Kale Abrha, Emma Cady, Jessica Johnson, and Bao Le

Breakout Room 7

Campus Stakeholder Perspectives on Carbon Mitigation

Magnus Popov

Breakout Room 8

Reasons to Invest in a Geothermal Heating System for UMass Amherst

Sebastian Haro, Rishabh Jain, Emily Laus, and Andrew Sullivan

Breakout Room 9

Localization of Climate Change in the UMass Curriculum

Kathrine Esten

Breakout Room 10

Electric Vehicles and Fishing Boats in East Africa to Build Sustainable and Inclusive Economies

June Lukuyu, Aggrey Muhebwa, and Jay Taneja

Breakout Room 11

Facilitating a Sustainable Energy Transition: Lithium-brine Extraction and Impacts on Freshwater in South America

David Boutt, Daniel Corkran, Alexander Kirshen, Sarah McKnight, and Brendan Moran

Breakout Room 12

Student Perspectives on Climate Change Education at UMass

Trevor Campbell

Session B | 6:20 - 7:00 pm

Breakout Room 1

Wind Energy Patent Analysis

Erin Baker, Kaitlin Fung, and Anna Goldstein

Breakout Room 2

Demographic Disparities in Financial Returns to Residential Solar Deployment

Emma Grazier

Breakout Room 3

UMass Carbon Mitigation and Building Retrofits: Interpretation of Buildings' Actual Energy Data

Mahsa Farid Mohajer

Breakout Room 4

Addressing Dorm Overheating to Reduce Campus Heat Waste

Hong Hguyen, Yael Liebman, Rebecca Schaefer, and Kieran Tay

Breakout Room 5

Modeling Window Retrofitting in UMass Dorms for Enhanced Thermal Efficiency

Benjamin Canton, Nora O'Connor, and Sruthi Tanikella

Breakout Room 6

Analysis of the Proposed UMass GHX System and Its Effects on Ground Temperature

Nicholas Capra, Alexander Marshall, and Herlin Rijo

Breakout Room 7

WhitMORE: Modelling Options to Reduce EUI

Joshua Lauterbach, Marley Norton, and Kevin Zheng

Breakout Room 8

Equity and Responsibility: Whose Job Is It?

Theresa Cayabyab

Breakout Room 9

The Electricity Scene from Above: Exploring Power Grid Inconsistencies Using Satellite Data in Accra, Ghana

Zeal Shah

Breakout Room 10

Student Preferences for Funding Campus Sustainability

Nathaniel Reynolds

Breakout Room 11

Carbon Mitigation at UMass Amherst: Equity in Financing

Timothy Scalona

Breakout Room 12

Feasibility Analysis of Low Temperature Hot Water Systems at UMass Amherst

Jeffrin Daniel, Raveena Dookhan, and Abigail Guinan