MIT ALUMNI FOR CLIMATE ACTION

MACA Annual Meeting Newsletter Issue 5

Feature Presentation on Data Centers by Climate XChange

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The MACA Annual Meeting on January 18, 2026 was kicked off by a presentation on Data Centers by two guest speakers from Climate XChange, Executive Director Paola Ferreira Miani (MIT SM '95 Course 1T) and Policy & Research Director Jordan Gerow, JD (Pace Law). The non-profit focuses on advancing state level climate policy to improve environmental, energy, and natural resource use. Through a network of policymakers, advocates, and researchers, they analyze state climate policy, publishing a climate policy dashboard tracking over 65 kinds of policies over main mitigation sectors. An issue at the forefront of climate has been enacting effective data center regulations and Gerow and Miani joined us to speak about their latest analysis of data center climate impacts and state policy approaches to regulating these facilities.

Energy consumption is booming with demand growth for AI and the power associated with running data centers. This unprecedented growth poses risks to energy affordability, water resources, grid reliability, and public health. The skyrocketing demand for AI in recent years has translated into uncertainty in how much energy will be needed and has left states trying to catch up.

Climate XChange has tracked state legislation to follow where AI is heading and how states are responding with policies. In the 2025 Legislative Session, 149 different bills were proposed across 34 states regarding data centers and the costs of electricity. Of the proposed bills, 20 were enacted in 15 states. Climate XChange identified three major themes across the enacted bills – rates and affordability, grid planning and reliability, and tax incentives for data centers.

Climate XChange has also conducted analyses through six major lenses for identifying states of concern, tracking and proposing recommendations for greenhouse gas emissions, water stress, energy affordability, energy reliability, tax revenue and employment, and political activity. You can learn more about their policy recommendations for each of these lenses here.

Contents:

An Overview on the State of MACA - We're Official!

Following the Climate XChange presentation, MACA President Shiladitya DasSarma provided the 'State of MACA' address, announcing that in May 2025, MIT Alumni for Climate Action (MACA) achieved official recognition status as an MIT club within the MIT Alumni Association. This was the most significant milestone in the evolution of MACA from a small group of climate advocates in Maryland in 2018 to an MITAA-recognized MIT Club with national and global membership.

DasSarma provided background information on the steps to official recognition which included an audit by MIT TLO (Trademark Licensing Office) in mid-2022. This led to MACA's application to the MIT Alumni Association in summer 2023. In May of the following year, criteria for recognition were updated, and after another year, the application was approved by the Board of Directors of the MITAA. On June 10, 2025, MITAA CEO Whitney Espich wrote in an email stating that "We look forward to working alongside you and [MACA's] board to cultivate even stronger connections between the alumni community and the Institute. The [MITAA] Board of Directors is looking forward to the impactful work the MIT Alumni for Climate Action will do in building and strengthening relationships between alumni and the Institute."

Exceptional climate changes that occurred during this period of time were highlighted, including 2024 being the warmest year on record and 2023 and 2025 being tied for second warmest, and notably July 21, 2024 was reported as the hottest day "ever" (or in the last 125,000 years) according to the Copernicus Climate Change Service.

DasSarma also reported on the troubling rollbacks in US climate policy, including the US leaving the Paris Agreement and the UN Framework Convention on Climate Change (UNFCCC) and the Interagency Panel on Climate Change (IPCC) by the end of the year. Many Biden-era policies were rolled back, including funding for renewable energy and carbon capture & sequestration technologies in the Bipartisan Infrastructure Law and Inflation Reduction Act. The EPA weakened many pollution abatement rules and policies intended to protect public health and welfare, rescinding the carbon dioxide regulating Endangerment Finding which forms the legal basis for regulating carbon dioxide emissions in the US. Indeed, it was reported that the EPA is no longer considering lives saved in its rules on air pollution.

Meanwhile, US major disaster data compilation by NOAA since 1980 ended in 2025 but has since been picked up by Climate Central, a non-profit focusing on the effects of climate change. They noted that last year was one of the costliest on record, with 23 weather and climate disasters in the US which caused damages of at least $1 billion and claimed an estimated 276 lives. Disasters cost a total of $115 billion, the third-highest year for billion-dollar disasters, after 2023 and 2024.

DasSarma then provided a summary of MACA activities, introducing MACA's Newsletter manager, Amelia Macapia, and highlighted some of the articles in the four quarterly newsletters which appeared in 2025 (https://maca.earth/newsletters), including three editorials: In Issue 2, why we need to transition away from fossil fuels ("Staying the course"); in Issue 3, why democratic principles shaped by science and truth are needed for climate action ("Dark clouds over democracy"); and in Issue 4, why increasing pollution will impact all of us ("America Needs a Commitment to Address the Health Impacts of Climate Change").

Amelia, a science writer and incoming Columbia graduate student who co-directs interview articles with the MIT Science Policy Review, asked all members to contact her with ideas for climate articles and club updates at ameliamacapia@gmail.com or by filling out this form: https://tinyurl.com/2s3wa68r.

DasSarma then introduced MACA's new Communications manager, Victoria Owens, who is a member of MACA's BOD. Victoria announced the launch of the new MACA MITAA website and the benefits of using the MIT-approved tools which can improve member connections to each other and the greater alumni community. All members were asked to create an Infinite Connection account by going to https://alum.mit.edu/account/ (which is required by MIT for full access).

Next, DasSarma introduced MACA's new Community Manager, Lily Rose Smith, who is in charge of MACA's events scheduling and membership activities. Lily Rose is on the Annual Giving Leadership team within the MIT Alumni Association and she joined MACA in October with the goals of becoming more involved in environmental activism, and to help make MACA's transition to an official MITAA member group smooth. She also plans to assist in the

State of MACA - We're Official! (cont.)

migration to the new MACA website, and to make sure all members have their own account. All members should contact Lily Rose with event ideas and let her know if interested in helping with MACA's Community management activities: lilyrose10smith@gmail.com.

Finally, DasSarma introduced Margaux Filippi, chair of MACA's Strategy Planning Committee (SPC) and a member of MACA's BOD. Margaux reported that during 2025, the SPC reflected on MACA's past activities and current status and proposed augmented strategies for upcoming years. Member feedback shaped SPC recommendations with some changes already implemented by the President and the BOD, including our Communications and Community managers. Attendees were encouraged to attend follow-up discussions in a breakout room.

Following Margaux's presentation, attendees were invited to join breakout room discussions on the topics of MACA Official Status & Team Volunteers, MACA Strategic Plan, New Architecture Group, New Climate Moonshot Paper, Emerging and Developing, Economies Paper, Campus Decarbonization, or Data Centers. After the breakout rooms, everyone returned to hear summaries of the discussion from each of the breakout rooms and synthesis discussion (see below). DasSarma announced the need for more engagement on the part of MACA members as volunteers for the board, as managers and active members. Openings were announced for member leads for various groups, e.g. on entrepreneurs, technologies like EVs, affiliates, and climate news. Interested members should reach out with an email to info@maca.earth.

After the breakouts, further discussion ensued, including the importance of MACA members taking a stand together with authoritative reports and position papers, like those available on the website: "Climate Introduction" for students to MACA's "Roadmap for Responding to Climate Change", as well as our papers on "Green Alternative Fuels" and "Carbon Dioxide Removal". MACA has also produced a valuable consumer resource on heat pumps and the campus decarbonization plan led by Susan Murcott, MACA campus lead, together with her D-lab students.

Many members felt that MACA was on the right track in providing a reasoned science-based path forward with the goal of making a better world.

Climate change is a long-term problem which will not vanish by wishful thinking. As climate change continues to take a human toll and becomes increasingly costly for society, we cannot ignore it.

DasSarma thanked all the members who attended for their help with meaningful climate action as a group of active volunteer MIT alumni. He repeated his mantra that "no one has to do anything or everything, but we all can do something" in a supportive and constructive manner in MACA, and closed by saying that "Doing nothing is not an option." With constructive dialog going on for nearly an hour, the annual meeting was gavelled closed with members agreeing to start a monthly discussion group.

MACA's Annual Meeting Program - Sunday, January 18, 2026, 1-3 pm EST

1:00 pm Feature Presentation: Where States Stand on Data Centers: Exploring Climate Impacts and Policy Approaches, Jordan Gerow and Paola Ferreira Miani, Climate XChange

1:40 pm State of MACA-We're Official! Shiladitya DasSarma, MACA President; Amelia Macapia, News Manager; Victoria Owens, Communications Manager; Lily Rose Smith, Community Manager

2:00 pm MACA Strategic plan, Margaux Filippi, SPC chair

2:15 pm Networking / Breakout rooms

2:45 pm Returned to main room for Breakout room reports and synthesis discussion

3:30 pm Adjourned

Strategic Plan Update

By Victoria Owens and Margaux Filippi

In 2025, MACA established a Strategy Planning Committee (SPC) to review the organization's status and propose a strategic direction for the future. The SPC engaged in extensive iterative discussions throughout the year, including internal meetings, consultations with the MACA Board of Directors and broad member feedback via a dedicated survey. Thanks to all members who filled out the survey! Member input shaped the SPC's recommendations: respondents indicated stronger networking and a desire to connect with and learn from MIT climate experts as key priorities.

In response, MACA implemented changes to streamline communication and increase networking by creating new roles: Communications Manager (Victoria Owens), Newsletter Editor (Amelia Macapia) and Community Manager (Lily Rose). Improvement is ongoing and we always welcome member feedback! To this end, a breakout room at the Annual Meeting was dedicated to discussing the SPC's work and gathering further input from members.

Feedback gathered during the session reinforced the survey results in three main areas. First, members asked the SPC to proactively communicate with members about the SPC's work and progress, including how the creation of new roles, intended to streamline communications, enhance networking and build a stronger community fit into the strategy. We hope this newsletter is a starting point. Second, members asked to engage in joint initiatives with other universities and network groups. MACA currently collaborates with groups like CUSP and EESN, but the SPC is taking note that we should increase the visibility of these collaborations. Finally, there was a strong interest for MACA to facilitate more networking opportunities with MIT Alumni currently working full-time jobs in climate-related positions. The SPC is committed to integrating this feedback and developing initiatives to meet member needs.

Based on this and other feedback, MACA will continue to focus on supporting project-based initiatives led by members, with opportunity for members to share ideas for and progress on initiatives at general member meetings, to be facilitated by MACA leadership.

Strategic Plan Update (cont.)

After President Kornbluth announced the MIT Climate Project to the alumni community at a MACA-sponsored event in 2024, MACA clearly has an important role to play in terms of building a climate-focused community of MIT Alumni and affiliates. We are dedicated to improving communications and networking to better disseminate awareness and advocacy across our networks.

Architecture Group Inaugural Breakout Session: Climate Action Through Design Leadership and MIT Values

By Meral Ekincioglu

The Architecture Group, announced in the MACA December 2025 Newsletter and led by Meral Ekincioglu, Ph.D., held its inaugural meeting in a breakout session during the MACA 2026 Annual Meeting. In the session, an introduction emphasized generating measurable impact at the intersection of architecture and climate action.

The session's critical theme was the absence of architecture in the current and initial set of MIT Climate missions. Given the building sector's substantial contribution to global carbon emissions, the Architecture Group addresses this gap by asserting architectural leadership within MIT's climate framework. This action-based leadership prioritizes a systemic shift in architectural design practice. Participants and MACA members identified shared priority areas, including disaster-resilient critical infrastructure; energy-efficient building design and retrofit strategies; cost-effective sustainable architecture; building automation systems to reduce carbon emissions; and structured platforms for knowledge exchange.

To sharpen the Group's focus, the planned next phase is targeted engagement with academic leaders and alumni of the MIT School of Architecture and Planning (MIT SA+P), grounded in disciplinary integrity. Through these discussions, the most urgent issues at the intersection of architecture and climate change will be prioritized, informed directly by their architectural expertise.

Architecture (cont.)

This will guide the Architecture Group's roadmap aligned with climate goals of MIT and MACA. Planned initiatives include a public online event convening MIT SA+P academic leaders and alumni, as well as monthly online group meetings. The Group also aims to engage with major international climate initiatives, including the UN Climate Conference in Türkiye in 2026.

The Architecture Group affirms its commitment to MIT President Sally Kornbluth's call "to marshal a bold, tenacious response to the run-away crisis of climate change," while embracing MIT's 17th President L. Rafael Reif's words from the MIT Climate Action Plan: *"There is room and reason for each of us to be part of the solution."*

Interested in more information on MACA's Climate Moonshot group? Send an email to info@maca.earth.

Drawing, Designing, Thinking: 150 Years of Teaching Architecture at MIT, a past exhibition at the MIT Museum. Photo: Meral Ekincioglu.
References:
 1. See MIT Climate Project's six topics, MIT Climate Project, Mission Descriptions, https://climateproject.mit.edu/six-missions/mission descriptions, last accessed on January 28, 2026.
2. MIT President Sally Kornbluth, 2023, Inaugural Address, May 1, https://president.mit.edu/writing-speeches/inaugural-address, last accessed on January 28, 2026.
3. L. Rafael Reif, 2021, MIT Climate Change Action Plan, Letters To The MIT Community, October 21, https://reif.mit.edu/speeches writing/mit-climate-change-action-plan, last accessed on January 28, 2026.

The Climate Moonshot

By Glenn Weinreb

The MACA moonshot team currently has 13 members. Their interests vary from raising money, to filmmaking, to writing position papers for the United Nations, to team building, to working on buildings.

The Climate Moonshot (cont.)

Climate moonshot involves doing R&D, to the extent required, to solve the entire climate problem. For background information, see the following links:
Moonshot Strategy
Moonshot Summary

The main questions discussed were:
(a) *Where does the initial moonshot money come from?*
(b) *Where does it go?*
(c) *What does it do?*
(d) *Who manages it?*

Following the MACA Annual Meeting, the group presented ideas to the Healthy Planet Action Coalition (HPAC).

The MACA Moonshot Group is new and growing and new members are welcome. They are holding a "big" meeting on the 1st Tuesday of each month, and a "smaller" meeting on the 3rd Tuesday of each month, both at 1pm ET (10am PT).

The next meeting is scheduled for March 3, Tuesday, 1pm ET (10am PT): Zoom link

Interested in more information on MACA's Climate Moonshot group? Send an email to info@maca.earth.

Emerging and Developing Economies Update

By Jose Pareja

A MACA Climate Justice group, which is actively working on a position paper on Emerging and Developing Economies (EMDEs), held another breakout meeting. The discussed three major points:

1. The importance of EMDEs in future carbon emissions is significant, as their economies are projected to grow rapidly, and consequently, their energy consumption will also increase. Currently, the massive deployment of clean energy cannot keep up energy demand, so fossil fuels fill the gap and carbon dioxide emissions continue.

Emerging and Developing Economies Update (cont.)

However, energy security and economics, as clean energy becomes more competitive, rather than the impacts of climate change itself, are likely to be the primary drivers of clean energy massive deployment.
2. The cost of capital, systemic risk by regions of EMDEs, and awareness of inaction in the face of rising climate costs for consumers, for example, home insurance. It is imperative to apply appropriate policies to prevent avoidable future emissions, and it is necessary to eliminate barriers like outdated policies, incentivize simplified permitting processes, and implement market incentives.
3. Capacity factors, or natural and technological advantages, relative to EMDEs regions for clean energy alternatives. Different models based on regionalization, regional differences in capacity factors and energy storage, true decarbonization end-to-end, and equitable access to zero emission for energy produced. These capacity factors should be aligned with a global roadmap for competitive advantages by regions in clean energy projects that can offset the higher cost of capital in EMDEs.
MACA supports the need to reduce the perceived risks of clean energy projects, to incentivize R&D in key sectors that today are too expensive to decarbonize, and ways to demonstrate that they are attractive for investments in EMDEs.

There is still time to get involved in this exciting paper. Reach out by sending an email to info@maca.earth.

Decarbonizing the MIT Campus: Centralized and Distributed Approaches

By Susan Murcott

The MACA Campus group held a breakout discussion on campus decarbonization, including three recent plans:
1. AEI (12/2024) – A consultant study proposes a centralized, phased approach with flexibility to adopt future technologies including large geothermal heat pumps located at the Central Utilities Plant, nuclear microreactors or deep geothermal; targets ~90% reductions by 2045. (unpublished)

2. MITTEN (1/2025) – MACA-MIT Campus group/Geo@MIT alumni, student, faculty proposal for a 5th generation distributed thermal energy network with water-source heat pumps and campus-wide retrofits, projecting full decarbonization in 10 years by 2035 (starting campus building retrofits -- west, south, north, east, location-by-location). (MIT Thermal Energy Networks), "MITTEN" Plan)
3. DECARB (12/2025) – A faculty-student class and White Paper aiming for net-zero by 2050. "We need to deep retrofit our buildings and work towards a 5th generation (distributed) district system" (8 buildings/year): C Reinhart, D Hsu, C Mueller, L Norford, J Sterman and J Trancik, 2025, "*A Primer on Decarbonizing MIT's Campus,*" White Paper: "*How to decarbonize the MIT campus?*" MIT Faculty Newsletter, Nov./Dec. 2025.
The group discussion also addressed the tension between aspiration and execution on campus. While MIT has historically leaned on incremental measures and carbon offsets, the group felt that transformative leadership, investment in energy efficiency retrofits, and adoption of cutting-edge 5th generation approaches and energy efficiency and retrofit strategies are required to meet decarbonization goals within 10 years. *If you are interested in learning more, please reach out by sending an email to murcott@mit.edu.*

Data Center Discussion on Cooling Technologies

Herb Zien led the discussion on data center cooling technologies, bringing his many years of experience to the subject. Instead of chilled air blowing from penthouse air handlers, as a thermal engineer, he discussed five liquid cooling technologies.
Members interested in continuing the discussion on data centers should reach out with an email to info@maca.earth.

For Full Member Benefits, Don't Forget to Sign Up on the MITAA website:

https://alum.mit.edu/account/