

MIT ALUMNI FOR CLIMATE ACTION

MACA endorses Fossil Fuel Non-Proliferation Treaty Proposal

By Martyn Roetter and Shiladitya DasSarma

The First International Conference on Transitioning Away from Fossil Fuels - the Santa Marta Conference - brought together 57 countries, accounting for one third of the world's economy, to focus on the practical "how-to" of phasing out fossil fuels. Three key workstreams were established at Santa Marta: the first focused on developing national and regional roadmaps away from fossil fuels. The second workstream focused on changing the financial system to better facilitate the transition away from fossil fuels and the third addressed the balance between trade and investment for decarbonization.

The conference co-host Colombia presented its national road map for the phase out of fossil fuels. Its target is to reduce fossil fuel use by around 90% by 2050, through a combination of electrification, renewable energy expansion, and structural economic transformation across sectors. This plan emphasizes a "Real Zero" transition that prioritizes absolute emission reductions over offsets.

The importance of science in political decision-making was stressed at Santa Marta and a proposal for a Fossil Fuel Non Proliferation Treaty resulted. MACA was invited to endorse the treaty and did so after an overwhelming vote in favor by our Board on May 17. See: <https://www.fossilfueltreaty.org/endorsements>.

Find A New Way to Engage and Support MACA on MIT.edu

By Victoria Owens

MACA has a brand-new website, most easily reached by going to <https://MACA.Earth/> or directly via the [MIT Alumni Association website](https://alum.mit.edu/account/). This new website offers many opportunities for engagement and collaboration with other MACA members and MIT alumni *writ large* but requires registration on <https://alum.mit.edu/account/>. Once registered, basic-level MACA members (which continues to be free) can upgrade to become supporting level members. This support will allow MACA to grow and broaden the range of its impact, and supporting (or regular) level members have the opportunity to apply to join the MACA board, vote on governing matters, and make a greater impact on the direction of the club. As a special perk, recent grads can sign up for free!

To reach the [membership signup page](#), register, login to your Infinite Connection account, and then click on Memberships on the tab at the top of the page. You will see the three options: Supporting, Regular, and Recent Grad. All membership dues are annual (starting on the date of sign-up). Members may also choose to set up automatic renewals. We encourage everyone to support MACA's efforts via this page, although current free basic membership, including affiliate membership, does not require signing up for membership through this system. The new MACA website also has tabs for [News](#), [Events](#), [Connect](#), [Papers & Content](#) and there are link outs to the original [MACA.earth](#) for more information on interest groups and ways to connect with MACA members. Hurry to sign up for supporting (or regular) MACA membership so you can engage and collaborate with other members and make a bigger difference to our future. Reach out to info@MACA.Earth with any questions or suggestions.

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Welcome!

MACA

Supporting
Annual membership fee for supporting members is \$50, plus recommended donation of \$50.

Regular
Annual membership fee for voting members is \$50.

Recent Grad
Free for anyone who graduated this year and last year.

MACA Editorial: Impacts of War on Climate and Energy

In 2026, the start of the second quarter of the twenty-first century, there are a half-dozen major wars on-going with another dozen minor ones world-wide. Among these is the Russo-Ukraine war, which is well into its fifth year and has resulted in over a million casualties ([Wiki](#)). More than 236,000 buildings have been damaged or destroyed across Ukraine since the full-scale invasion, with over 2.5 million housing units suffering impact or losing accessibility, affecting over 10% of the country's total housing stock ([UN News](#)). Meanwhile, the war in Iran which began nearly five months ago, has resulted in around 50,000 casualties in Iran and Lebanon, with an estimated 190,000 residential and commercial units damaged or destroyed ([GBFR](#), [IranWire](#)).

The economic costs of the two largest wars have been enormous. In Ukraine, reconstruction is projected to cost nearly \$588 billion over the next decade, with direct physical damages exceeding \$195 billion ([EuroNews](#)). These include costs for housing, transportation, and energy infrastructure. In Iran, the costs are still being calculated, but are estimated to be upwards of \$ 132 billion ([CFR](#)). In terms of carbon emissions, data is sparse, but a study by Climate & Community Institute found that the first two weeks of the Iran war produced more carbon emissions than the country of Iceland does in a year ([CCI](#)).

Some historians argue that wars have inadvertently driven human development, albeit at enormous human and social cost. The wars in Ukraine and Iran are undoubtedly inflicting enormous costs on humans and societies, both directly and indirectly, most of whom bear no responsibility for it. In addition to their immediate negative impact to increase global carbon emissions, largely through the destruction of buildings, and adding to the human costs of deaths and injuries, they have also introduced more uncertainty and turmoil into the decades-long transition from our overwhelming dependence on polluting fossil fuels as sources of energy, to renewable clean climate-friendly energy. This uncertainty complicates policy changes needed to manage and achieve resiliency in our overall supplies of energy ([NY Times](#)).

These conflicts have intensified global energy vulnerabilities, as nearly 80% of primary energy consumption still depends on fossil fuels. Because oil and gas are traded in interconnected global commodity markets, the marginal consumer sets prices, rather than domestic markets. As a result, consumers in both importing and producing countries—including the United

States, the world's largest oil and gas producer—face higher energy costs when global markets are disrupted ([FT](#)).

This is one of the reasons both economics and energy security are central considerations in the transition to a decarbonized global economy, and the 2026 Iran conflict has intensified these factors. Unlike fossil fuels, clean energy technologies rely primarily on locally available resources—such as sunlight, wind, water, and geothermal spots—rather than internationally traded energy commodities, reducing exposure to global geopolitics, strengthening energy independence, and changing behavioral economics and policy design. Buying electric vehicles avoids rising fuel costs and installing rooftop solar panels can lower electricity bills ([NY Times](#)).

An illustration of this is the war in Ukraine, which has reduced gas consumption in Europe by approximately 16% ([CREA](#)), and the 2026 Iran conflict will only intensify that trend. The EU case is a good example that the transition to a decarbonized global economy is underway, but still not fast enough. At current rates, the 2°C carbon budget will be exhausted well before mid-century. The problem is further amplified by two powerful trends: the rapid economic growth of the Global South and the explosive advance in energy demand for AI. While both are structurally important for the global economy, together they are driving a surge in demand for energy—both clean and fossil-based—placing additional strain on climate warming.

The combination of these two factors - alongside escalating regional and global tensions within an evolving geopolitical order - is intensifying the need for countries to focus on energy security. The recurring conflict in Iran might be a critical inflection point in this context that could accelerate clean energy even further, catalyzing the scale of innovation, R&D, and climate financing really required at the global scale.

Through strategic public-private partnerships, municipalities can simultaneously achieve multiple goals, including decreasing fossil fuel dependence, increasing community resilience and climate justice, and lowering energy bills for everybody ([NY Times](#)). While the US federal government wastes resources on war and jeopardizes domestic industries ([NY Times](#)), communities have the opportunity to rebuild themselves to be more resilient and better prepared for a challenging future.

Meet MACA's New Vice President, Quinton Zondervan

Quinton Zondervan was elected MACA's Vice President on April 26, 2026 by vote of the Board of Directors. Most of MACA already knows Quinton as an entrepreneur, non-profit leader and dedicated community activist and a leader and passionate spokesman for climate action with MACA. He has served as a member of MACA's Board since 2022 and has been a featured expert in many MACA panels and events, as well as the inaugural event hosted with Harvard, Stanford, and Yale climate alumni in launching CUSP, the Consortium of College and University Alumni for a Sustainable Planet.

Quinton has a long and distinguished record as a climate advocate, serving on the Cambridge, Massachusetts City Council, from 2018 through 2023 where he was instrumental in passing several environmental laws that established the city as a climate leader in the US. Currently, he serves as Policy Director at Run On Climate, a nonprofit focused on electing and supporting climate activists in local office. He also serves as President and board chair of Climate XChange, a 501(c)3 non-profit organization supporting climate policy at the state level.

In the past, Quinton served as president and board chair of Green Cambridge, Inc. a 501(c)3 non-profit corporation dedicated to improving the environment and enhancing Cambridge's sustainability, through 2017, and as a fiduciary board member until 2024. Quinton also served for 5 years (2014-2019) as board member of Better Future Project, Inc. a 501(c)3 non-profit corporation dedicated to a future free of fossil fuels and climate change.

Quinton is an MIT educated Software Engineer and entrepreneur, and has worked at AT&T Bell Labs and IBM (Lotus), was the Chief Technology Officer (CTO) at internet start-up company Clickmarks, Inc. and was the founding CEO at therapeutics focused biotech Excelimmune, Inc. for 7 years (2006 – 2012 inclusive). He has worked as a software consultant and technical advisor at big companies like eBay, and at smaller AI startups Nivi and Jaxon. He served as the founding CTO at eCare Vault, Inc., a secure medical information sharing and care coordination software startup he helped found in 2015.

In 2015 Quinton helped found and started serving on the board of Potluck Energy, now Gridline.ai, a Delaware benefit corporation and pioneering greentech startup that created the first community solar project serving Cambridge and Somerville in 2017.

Quinton holds a master's degree in electrical engineering and computer science from MIT (1995) and bachelor's degrees in



MACA VP Quinton Zondervan

the fields of mathematics and computer science from Eckerd College (1992) in St. Petersburg, Florida, and serves on the board of trustees at Eckerd since 2013.

Did you know that the Boston region has a new Bluebikes bikesharing system that is expanding E-Bike access in Cambridge? See [StreetBlog Mass](#).

MACA Officers & Board Members

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 Quinton Zondervan, Vice President
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 Martyn Roetter, Board member
 Meral Ekincioglu, Board member
 Harini Sundaram, Board member
 Lily Rose Smith, Community Manager



Meral Ekincioglu and Harini Sundaram join MACA's Board



Harini Sundaram is a strategy and growth executive with more than 20 years of international experience helping organizations scale clean energy, digital infrastructure, and industrial technology businesses. Throughout her career, she has focused on turning innovative energy technologies into practical, commercially viable solutions that create both business value and climate impact.

Most recently, Harini led growth, product management, marketing, and sales operations at GreenStruxure, a Schneider Electric joint venture that developed AI-enabled Energy-as-a-Service microgrids for commercial and industrial customers. Previously, she held multiple global leadership roles at Schneider Electric, where she led growth strategy for its €1 billion EcoStruxure digital platform, commercialized digital energy solutions, and drove enterprise-wide

transformation initiatives. Today, she advises select clean energy and digital infrastructure companies on growth positioning and commercialization strategy.

Having lived and worked across the United States, France, and India, Harini has led global teams spanning North America, Europe, and Asia. She holds an M.Tech in Chemical Engineering from IIT Madras, an MBA from INSEAD, and an Executive MBA with a Sustainability Certificate from MIT Sloan. Harini believes that climate progress depends on both innovation and scale. Continued advances in technology are essential to achieving long-term decarbonization, but many solutions needed to reduce emissions are already commercially viable today. Accelerating their adoption will require innovative business models, supportive policy, cross-sector collaboration, and engaged communities.

As she joins the MACA Board, Harini looks forward to leading the technology workstream and collaborating with fellow MIT alumni across academia, industry, startups, investment, and policy. She hopes to strengthen the technology perspective within the MACA Roadmap by fostering thoughtful dialogue, sharing practical insights, and identifying scalable pathways for climate action. Above all, she hopes to build a collaborative community, enabling members to learn from one another, contribute their expertise, and help translate promising ideas into meaningful real-world impact.



Trained as an architect, **Meral Ekincioglu, Ph.D.**, is a committed scholar with professional, curatorial, teaching, and publishing experience who conducted postdoctoral research as a visiting scholar at the Department of Architecture and served as an architectural curator for MIT-Archnet. Prior to this, she pursued her Ph.D. research as a research scholar at Harvard University in the History of Art and Architecture Ph.D. Program, and at Columbia University in the Graduate School of Architecture, Planning and Preservation. Meral has served twice as an invited nominator for the Aga Khan Awards for Architecture, delivered 40 presentations, publishing over 30 international works, and teaching at both the graduate and undergraduate levels.

Meral has contributed to more than 100,000 square meters of built projects, gaining direct insight into the role of climate-responsive design in advancing sustainable and resilient built environments. She believes that meaningful climate action in the built environment begins with understanding how environmental, geographic, spatial, cultural, and historical contexts shape human needs. Within this framework, architectural design brings together environmental knowledge, local context, and technology to create climate-responsive environments that are resilient and responsive to community needs. Her climate leadership has been strengthened by a Certificate of Leadership from the City of Cambridge and 13 American Institute of Architects–approved certificates of completion in climate change, resilience, and adaptation.

For the new Architecture Group in MACA Meral is establishing, she has been prioritizing the integrative capacity of architectural design intelligence at the intersection of human essential living-space needs, building systems and their operation, technology, culture, history, and innovative thinking, to mitigate and adapt to climate change. The group engages with leaders and alumni of MIT SA+P, the home of the oldest architectural course of study in the U.S., and is focusing on global climate action initiatives spanning the U.S., Brazil, Syria, and Türkiye, the host of COP31.

By engaging across all MIT schools - from humanities, arts, and social sciences to architecture and planning, computing, engineering, management - she identifies an important opportunity to further strengthen MACA's leadership in climate action.

Upcoming Webinar: Hannah Safford, Federation of American Scientists

Organized By Joylette Portlock

There is an increasingly obvious mismatch between “wicked” modern problems and the aging institutions and regulatory strategies we rely on to solve them. Perhaps nowhere is this more true than in climate. Foundational environmental laws like the Clean Air Act and the National Environmental Protection Act were built to curb industrial pollution in the 1970s – and while they largely succeeded at that task, they've been less successful at guiding the rapid, durable, equitable, and society-wide shift to clean energy that's needed to tackle the climate crisis. On **September 3**, Dr. **Hannah Safford** will discuss how the Federation of American Scientists' Center for Regulatory Ingenuity is laying the foundation for the next chapter of climate policy in the United States. including by better coupling regulatory and non-regulatory tools, helping states and cities move faster on clean energy, and unlocking the finance that climate projects need. As she'll explain, these projects have the potential to deliver substantial near-term emissions reductions while simultaneously building momentum for national statutory and institutional reform.

Hannah Safford is Associate Director of Climate and Environment at the Federation of American Scientists. She most recently served as Director for Transportation & Resilience at the White House Climate Policy Office, where she managed key pillars of the Biden-Harris Administration's historic climate agenda. Hannah's work and commentary has been featured on MSNBC and Al Jazeera, as well as in Nature, PNAS, and others. Hannah holds a Ph.D. in Environmental Engineering from the University of California, Davis, as well as an MPA in Public and International Affairs, an M.Eng in Environmental Engineering and Water Resources, and a B.S.E. in Chemical and Biological Engineering, all from Princeton University.

Take climate action with MACA

- Is your passion advocacy/policy, architecture, campus, education, justice, entrepreneurship, or technology-related? Contact us at info@maca.earth to contribute your ideas.
- Send updates, announcements, editorials and short articles for our quarterly newsletter through the [news submission form](#) or share upcoming meetings and events, use MACA's [event submission form](#).
- All MACA members are invited to organize a panel with your local MIT Club or Climate Group. Request a [MACA panel here](#).

MACA Interest Group News Flash

The newly established **Architecture Group** within MACA has been advancing four climate action initiatives since its inaugural group meeting in late February 2026. Each climate action initiative is being developed through a structured framework that defines the essential problem, pilot context, methodological approach, key focus areas, impact metrics, stakeholder engagement, project phases, anticipated start and completion. Contact **Meral Ekincioglu** to get involved.

The newly revitalized **Technology Group** organized a panel on World Environment Day. Contact **Harini Sundaram** for more information or to get involved with this group.

The **Justice Group** is finishing up its paper on “The relevance of Emerging Market and Developing Economies (EMDEs) in future CO2 emissions.” Reach out to **Jose Pareja** for more information.

The **Campus Group** meets weekly. Reach out to **Susan Murcott** if you want to get involved with campus activities.

The **Advocacy, Education, and Entrepreneurship** groups are looking for new leaders with project ideas. Reach out by emailing info@maca.earth.

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

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



- Help our community grow - it takes a member to bring in a member - invite other alumni and affiliates to join MACA today!
- MIT Alumni can join by filling out this [Member form](#). Sponsored affiliates can join MACA by filling out this [Affiliates form](#).
- Remember to check out our website at <https://MACA.Earth> for more news and information.
- We are looking for volunteers! Contact us at info@maca.earth to volunteer!