

The Power of Climate Art

Art allows us to respond emotionally to climate change — and turn that emotion into action. Page 6

Manawa (2022)

Keith Buswell (United States, @keithdbuswell), Etching, 21 in x 14 in x 2 in

Inside

Efficiency

Doing More with Much, Much Less

To deliver affordable, clean energy globally, efficiency gains are essential. **Page 10**

Investment

Driving Investment in Clean Energy

RMI is banding together buyers to nurture demand and grow markets. **Page 28**

Innovation

Accelerating the Energy Transition

RMI is supporting climate tech startups and leveraging climate data where it matters. **Page 32**

The Tech to Take on Methane. Page 36

Hydrogen

A Solution for Heavy Industry

Clean hydrogen is poised to deliver low-carbon energy to steel, chemicals, and other essential industries. **Page 42**

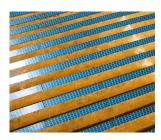
A Letter from Our CEO and Board Chair						
Board of Trustees	46					
Financials	47					
Thank You Donors	52					

Workforce



Investing in People

RMI is training, equipping, and empowering people around the world to provide the skills required to win the clean energy race. **Page 14**



China

China's Clean Energy Momentum

How RMI is supporting the world's top carbon emitter and biggest renewable investor in driving global decarbonization. **Page 18**



Access

Strengthening Communities Globally

From Nigeria to Texas, RMI is helping people stay powered up with reliable clean electricity. **Page 22**

ON THE COVER

Windfarm (2021) Janice McCullagh

(United States), photo etching with Chine collé, 16 in x 20 in From the artist: This image of a wind farm creates a feeling of movement and energy. The spirit is optimistic. The low horizon leaves lots of space for the suggestion of turning blades, and the abstract forms imply the expansiveness of wind power to effect positive results for our shift to sustainable energy.



A Message of Hope -Backed by Evidence

he past year has shown us the tension of two opposing forces at play around the world. On one hand, we see rising temperatures breaking records and causing devastating effects on human and planetary health. On the other, we continue to see an exponential rise in clean technologies such as solar power, electric vehicles, and batteries, which you'll see illustrated in this annual report.

Some believe we cannot solve the climate crisis without major trade-offs in profitability, affordability, jobs, equity, or reliability. Naysayers are concerned about dwindling business ambition, energy demand that cannot be met, rising temperatures, and political backlash.

But you will find a different message in the pages ahead — one of hope, possibility, and opportunity, with the evidence to back it up.

This past year, RMI has sharpened our strategy and doubled down on organization-wide goals. We tracked progress against outcomes in our three-year strategy, from increasing investment in innovative technology (page 32) to developing clean hydrogen hubs in critical locations (page 42).

We are laser-focused on developing and scaling marketbased solutions that:

- Drive investment by addressing barriers slowing the deployment of a clean energy workforce, climate finance, and technology;
- Expand renewable energy, energy access, and efficiency across major sectors in key regions and frontline communities; and
- Reduce heat-trapping pollution by minimizing methane leaks and removing pollution from the atmosphere.

And we have the team, partnerships, and expertise to do it. Now more than 700 strong, RMI is working worldwide with energy leaders taking bold action for our clean energy future. We engage in the most critical, highest-emitting geographies, including the United States, India, China, and Southeast Asia. We also work with emerging economies in sub-Saharan Africa, including Nigeria, where we are paving the way to finance clean energy projects in the country (more on page 22).

For those of you deeply rooted in the global energy and climate community, you may see other organizations



The climate challenge requires global vision with local leadership, and RMI's transformative programs across geographies are helping shape the world's climate future. This past year has been energizing and engaging, and we see growing consciousness and commitment to address the climate crisis in this decisive decade. The energy transition will not happen naturally, or easily, but intentionally.

working toward similar goals, and indeed, RMI's work is not possible without the critical network of partners and supporters worldwide.

With your partnership, RMI is developing world-leading economic and energy analyses alongside actionable roadmaps for corporations to lower their carbon footprints. Chief sustainability officers of leading companies are taking part in RMI initiatives like ZeroGrid to accelerate the transition to a zero-emissions grid, and 19 companies have joined our Virtual Power Plant Partnership to help scale renewable energy across the United States.

In our work, we are rarely alone. We believe in radical collaboration. This summer, Jon joined 20 leaders of diverse global climate organizations for a strategy session in Costa Rica, where against one of the world's most biodiverse backdrops, there was agreement and commitment for our organizations to coordinate and collaborate much more to achieve shared goals.

But we will admit our bias. RMI has a unique position in the ecosystem of organizations working toward a safe future for our planet. We have a "special sauce" that sets us apart. We are technical experts, solutions oriented, systems thinkers, fact-based and non-partisan, on-the-ground implementers, market shapers, and pragmatic collaborators. We work alongside decision makers committed to advancing clean energy, while focusing on bringing big solutions to market.

It has been a substantial year for us as an organization, and one of critical progress for the global energy transition. With the leadership of Sumant Sinha as the new Chair of RMI's Board of Trustees, our scope and mission take on even more global significance.

Momentum cannot slow down when the stakes are this high. We are grateful to our donors for your critical support to make possible RMI's work to transform the global energy system. We are on the mission of our lives.

Sincerely,

Jon Creyts, CEO Sumant Sinha, Chair, Board of Trustees

The Power of Climate Art

Art allows us to respond emotionally to climate change — and turn that emotion into action.

By Anais Reyes

s the impacts of climate change worsen, people are feeling increasingly alarmed.

Indeed, a recent global study of climate change beliefs found that, in more than three-quarters of the regions surveyed, most people described themselves as

"alarmed" — the poll's highest level of anxiety.

However, alarm does not necessarily translate to action. In the United States, 64 percent report being worried about climate change, but only 6 percent are talking about it. This dissonance between belief and behavior leads to what climate communications experts call the "spiral of silence." Despite feeling worried, people rarely talk about climate change because they rarely hear anyone else talking about it.

In short, people all over the globe are anxious about this existential threat but struggle with what they can do. This self-perpetuating cycle not only makes us feel overwhelmed and alone, it also holds us back from making progress on the climate crisis.

So how do we close this gap between anxiety and action? Art can be the bridge.

The what and why of climate art

Art has always been an avenue to connect with our emotions, explore social issues, critique injustice, question what we know, and experiment with seeing things from new perspectives. It can unite those who envision ways to do things differently — and it can help coalesce movements, both artistic and social. Climate art, similarly, has the potential to bring us together and motivate calls for change.

Climate art, though lacking a specific or universal definition, is what it sounds like — capturing the stories behind our understanding and experiences of climate change. It helps raise awareness of the issue. But beyond that, it creates opportunities for all people —

across languages, borders, and time — to react, relate, and, most importantly, respond to climate change.

Without needing to be an expert in climate science or policy, without needing to understand biogeochemistry or electric grid operations, climate art allows people to enter into the conversation simply by sharing their own experiences. Creating a physical, emotional, and social space for reflection and participation offers a way to break the spiral of silence.

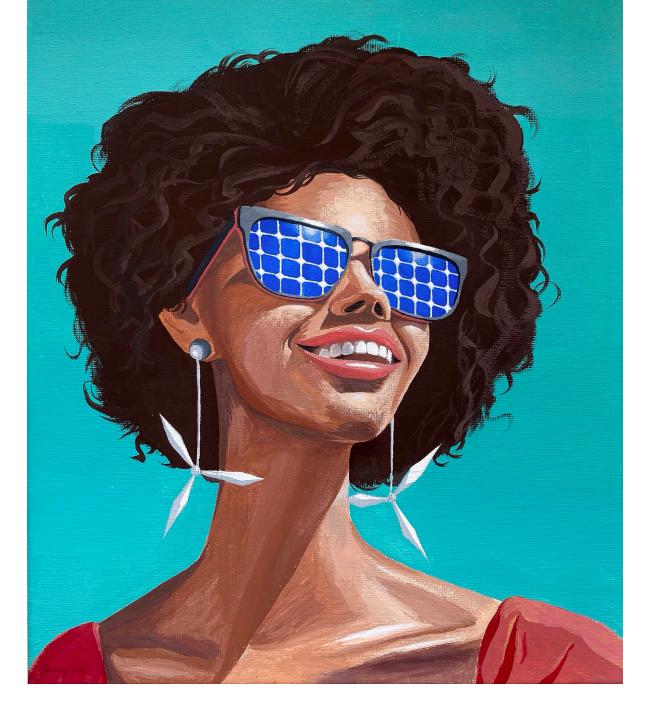
In the emerging field of "neuroarts," researchers are proving how art triggers the release of neurochemicals, hormones, and endorphins that leave you feeling more connected to yourself and others. Many of us think of art simply as a form of entertainment, but it can literally rewire your brain — building new synaptic connections and pruning inefficient ones. Tapping into our emotional responses to art can lead to tangible change, both individually and collectively.

Hope, applied

This summer, RMI invited artists from across the globe to submit art for inclusion in its annual report, and I had the honor of joining the jurying panel. They asked artists to evoke a sense of "applied hope" — to convey solutions, action, and the overarching idea that "systemic change is possible."

For Keith Buswell in Nebraska, this meant using the symbiotic relationship between trees and mycorrhizal fungi as a symbol of interconnectedness, exchange, and community. In *Manawa* (2022) (page 2), organisms work together to create a thriving, resilient system. Just as with each species in the forest, to restore the climate and create a sustainable energy system, every sector must come together — not just the sciences and business, but also the arts, education, public health, farming, fashion, and so on.

For Joy Saha in Bangladesh, this meant capturing the century-old traditional fishing festival on a glowing winter morning in Pabna. *Catch of the Day* (2023) (page 8) highlights the beauty of human stewardship, cultural heritage, communal participation, and the first-



Climate art in this report

This year, RMI solicited original artwork from artists around the world, inspired by our mission and the idea of "applied hope." We received nearly 800 submissions. A global jury selected the 11 pieces highlighted here in the report. This essay explores why art can be a potent agent to motivate climate action.

Eco Elegance (2024)

Yuning Liu (China), Gouache, 35 cm x 30 cm x 1.6 cm.

hand, present-day lived experience of sustainability.

And for Susie Oh in South Korea, this meant depicting the transition from a polluting, harmful energy system to a clean, renewable one. In a time when it is easy to feel weighed down by climate doom and gloom, *Winds of Change* (2024) (page 56) captures transition and transformation, allowing us to imagine the possibility of something better.

These are just three of the eleven works we selected from nearly 800 submissions. The others are included throughout this report. Taken together, the work offers a reminder that, in order to build a better future, we must first visualize that future.

A climate solution

Artists help us see our potential. When we can envision

what we need, we can create a guiding star and work toward it. Artists reveal our values and move us in ways that data often can't. As the author Toni Cade Bambara put it, "The role of the artist is to make the revolution irresistible."

Like renewable energy, climate art is a critical tool to bring about systemic change. Through climate art, we can close the gap between anxiety and action. By utilizing art as a climate solution, we can break the spiral of silence and change the existing culture around climate.

Anais Reyes is a curator and expert on the intersection of climate change and culture who has worked at The Climate Museum in New York City since 2018.

Find climate art on **Pages 1, 2, 7, 8, 9, 56, and 58**

Climate Art



Catch of the Day (2023)

Joy Saha (Bangladesh, @joysaha.official), Photography, 27.77 in x 41.66 in



Ablaze I (2023)

Kalyani Pramod (India, @kalyani.commonthreads), Upcycled fabrics, magazine and tea bag paper, repurposed yarn, 30 in x 50 in x 4 in



Wild Skies (2024)

Molly Lemon (United Kingdom, @mollylemonart), Wood engraving, 4 cm x 6 cm



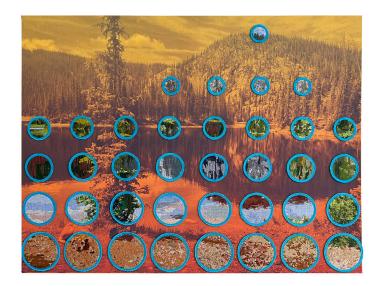
Swimming in the Sonal (2023)

Sanika Dhakephalkar (India, @_shoeblackplant), Mixed media, 16.5 in x 11.5 in



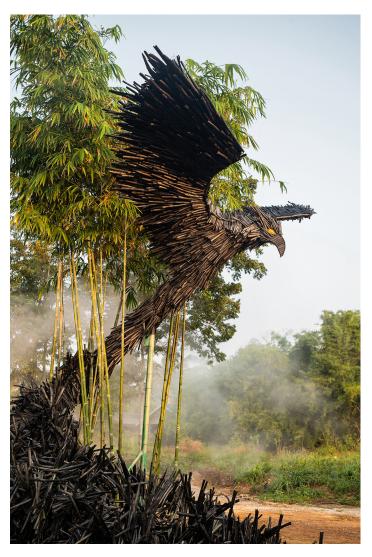
Horsepower (2022)

Jonathan Imafidor (Nigeria, @jonathanimafidor), Scrap metal, 84 in x 132 in x 48 in



Forest for the Trees (Three Island Lake) (2024)

Chloe Wilwerding (United States, @chloe_wilwerding_art), Digital embroidery, 25 in x 33 in x 1 in



Carbon Phoenix (2024)

Benjamin Von Wong (Canada, @VonWong), Biochar and steel sculpture, 84 in x 132 in x 48 in

Efficiency



At RMI's first headquarters in the 1980s, passive heating supports a grove of tropical banana trees — in Colorado.

Using Less Energy to Do Much More

To deliver affordable, clean energy globally, efficiency gains are essential. At RMI, the quiet hero of the energy transition is getting a fresh focus.

fficiency has been fundamental to RMI's success since our earliest days. Consider the home of RMI cofounder Amory Lovins, which doubled as RMI's first headquarters in the 1980s. The building is a living showcase of efficiency hacks, from the established — like super-insulated windows

— to the more exotic, such as passive heating solutions that sustain a small grove of tropical banana trees year-round in Basalt, Colorado's alpine climate.

Efficiency is deceptively simple. It means doing more with less, reducing both costs and waste in the process. Whether lighting a room using a fraction of the electricity or needing less heat to keep a well-insulated building comfortable, the solutions are often invisible.

For decades, efficiency gains have helped countless technologies, industries, and the wider economy do more with less energy.

Yet as the world transitions to clean energy, efficiency has suffered from under-investment and inattention. RMI is working to re-elevate efficiency, making the case to recognize its critical value and boost investment in parallel with spending on conventional clean energy technologies.

Indeed, efficiency gains could accelerate the arrival of a carbon-free energy system by a decade or more, while making the transition cheaper and more equitable. And many businesses and governments have taken notice and are now applying RMI's ideas and whole-systems approach to efficiency at an unprecedented scale.

Building efficiency and affordability

Outside Mumbai, India's largest city, a development called Palava City is "an efficiency dream in progress," as RMI CEO Jon Creyts put it. RMI India has collaborated with Lodha, one of India's largest real estate developers, on the project since 2018. The approximate 45,000-unit, 4,500-acre development boasts extensive on-site solar power and water-reuse systems, along with passive

design features such as window shading, building orientation, and green space to cut the heat load. Lodha's Net Zero Urban Accelerator "is a major step in this direction to drive collaborative, large-scale solutions for a greener future," said Abhishek Lodha, managing director and CEO of Lodha Group.

Palava City also provides a living laboratory to test efficiency theories and push new technologies. The Global Cooling Efficiency Accelerator, cofounded by RMI, is gathering data there on real-world air conditioner (AC) performance. This testing is an essential step to unlock the kind of innovation showcased in the Global Cooling Prize, which RMI led along with India's Department of Science & Technology and Mission Innovation.

Judged on their performance on both their climate benefits as well as their affordability compared to current technologies, the prize winners designed and built ACs that slashed electricity demand by 75 percent. But so far, outdated performance testing has hindered the commercialization and scaling of such innovative technologies. That's why RMI and our partners are developing new performance metrics that reflect the true cost and energy savings of high-efficiency AC units.

As dangerously hot temperatures multiply worldwide, cooling is increasingly a necessity to protect public health — not an optional luxury. And as the technology spreads around the world, lowering its energy needs is vital. By mid-century, updated standards could triple the efficiency of cooling equipment, according to a recent UN Environment Programme report that featured contributions from RMI experts.

The deep force of efficiency

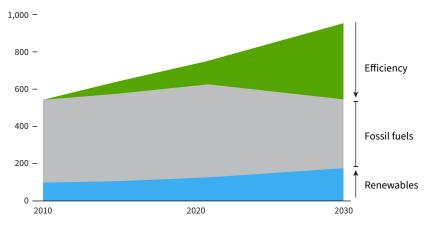
At scales both large and small, efficiency — along with renewable energy and electrification — is transforming the global energy system and reducing demand for fossil fuels, RMI's Kingsmill Bond, Sam Butler-Sloss, and Daan Walter write in their third annual energy transition report. Renewables and electrification are directly replacing fossil technologies, while efficiency gains — such as the two- to four-fold efficiency gains from switching to EVs and electric heat pumps — reduce the total energy needed (see top exhibit on right): As renewables multiply and efficiency expands globally, fossil fuels are being squeezed out everywhere.

China is leading the way in this transformation, but countries around the world, including in the Global South, are also seeing exponential growth as they seek to keep pace in the global clean energy race. "Cleantech is now 10 percent of global GDP growth," the authors explain, "and there is a race to lead the cleantech industries of the future."

Nevertheless, efficiency remains an underutilized — and under recognized — resource (see lower exhibit on right). All too often, this lack of recognition means that

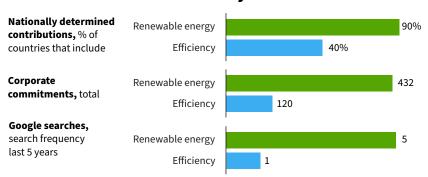
Renewables and efficiency outcompete fossil fuels

Global primary energy demand, EJ



Source: IEA Net Zero Roadmap, RMI analysis on efficiency.

Renewables often attract more attention — and investment — than efficiency



Source: UNFCCC ("multi-sector energy efficiency"), The Climate Group ("doubling energy productivity"), Google Trends ("efficient energy use"). Subtitle inspiration from Mission 2025.

efficiency misses funding, even when it often delivers the biggest bang for the buck. Much low-hanging fruit remains, such as upgrades to home insulation or air sealing that can shave 10 to 20 percent from energy bills — savings that can help all building owners and residents, especially low-income tenants. "Efficiency makes the energy transition faster, cheaper, more equitable, and more widely beneficial for the planet," RMI's James Newcomb and his colleagues wrote in an August article.

Keeping our foot on the accelerator

For more than four decades, RMI has pushed energy efficiency into the mainstream, as evidenced by the more than 100,000 visitors to Amory's home and the emergence of efficiency-minded developments such as Palava City. But the job is far from done. As the energy transition takes off, RMI is doubling down on efficiency solutions that deliver economic, climate, and societal benefits for people around the world.

Impact of the Acceleration Fund



With support from

the Acceleration Fund, we are re-invigorating our efficiency work with new thought leadership, research, and analysis to ensure business leaders embrace efficiency and demandside solutions as catalysts to reach our climate goals. A donor-supported source of flexible funding, the Acceleration Fund helps us scale proven work rapidly and broadly and refine emerging projects that can offer a big return on philanthropic investment.

Global Cooling for All

Last year was the warmest ever recorded, with countries from the equator to the poles experiencing dangerous heat waves that are only predicted to worsen. This extreme heat is expected to drive a 2.5 times jump in cooling energy use from current levels, with an additional 5 billion air conditioners (ACs), by 2050. RMI, the Government of India, and Mission Innovation started the Global Cooling Prize in 2018 to come up with a more efficient and affordable air conditioner. In 2021, two teams won the prize for their units that emit five times less carbon than typical AC units.

With the technology piloted, the next barriers are regulatory and market based — so RMI India is focusing on these fronts. In 2024, RMI and partners formed a coalition called the Global Cooling Efficiency Accelerator to take the products from promise to commercial reality. The ACs are now being field tested in Palava City, India, to help inform policy and bring affordable, super-efficient units to market.

The Light House Project in Perumbakkam, Chennai, offers another example of scaling efficient building solutions with potential benefits globally. Inaugurated by Prime Minister Narendra Modi, the project provides 1,152 affordable housing units. Completed in just 17 months at a cost of around \$14 million, the project demonstrates scalable solutions for India's urban housing challenges. At the Light House Project, RMI applied high solar reflective index coatings to the roofs, demonstrating that simple, affordable solutions can help keep temperatures down. In this case, the roofs' outside surface fell by up to 8°F during peak hours; indoor temperatures fell by up to 4°F.

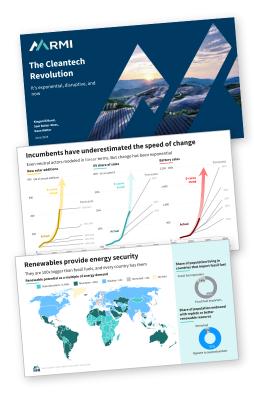
The success highlights the potential of cool roofs to improve living conditions, reduce energy consumption, and mitigate extreme heat in affordable housing. Residents at the pilot site reported feeling more comfortable indoors and experiencing lower temperatures since the cool roof paint was applied.



From our donors

Since first hearing Amory Lovins' stirring message of the power of energy efficiency, I have been a supporter and promoter of RMI's work. Amory's advice to 'always take your best buy first' remains true. End-use efficiency makes every other energy buy more potent. I am thrilled to know that RMI has elevated its efficiency practice, and I will continue to support your work."

— Peter Boyer, donor and former RMI Trustee



Efficiency Is the Essential Catalyst

Today's energy system is shockingly inefficient. Globally, we waste almost two-thirds of all primary energy — worth over \$4.5 trillion or nearly 5 percent of worldwide GDP — before any bulbs glow, cars roll, or other kind of value is created with that energy.

Amory Lovins, Kingsmill Bond, and other RMI experts not only showed the inefficiency of the fossil fuel system in a June 2024 in-depth article, but also explained how the fundamentals of the global energy system are shifting, as coal, gas, and oil technologies are undercut by lower cost, more-efficient alternatives.

And in RMI's 2024 report, *The Cleantech Revolution*, some of those same experts explain how, as electricity grows to become the largest source of useful energy, efficiency has reduced energy demand by a fifth. "Efficiency lies at the core of the energy transition to come, as was the case in energy transitions before," the report states. "It should not merely be seen as one driver out of many but as an essential catalyst driving competitiveness, sustainability, and availability of all new clean technologies and systems."

	1	2	3	4		5	6	7	8	9		10	11	12
13						14						15		
16					17							18		
19					20					21	22			
23				24					25					
26						27	28	29			30			
			31		32		33			34				
35	36	37 N		38		39						40		
41		E	42						43		44			
45		G			46			47		48		49	50	51
52		Α		53				54	55					
56		W				57	58				59			
60		Α		61	62					63				
64		Т		65						66				
67		Т		68						69				

Amory Debuts in the New York Times Crossword

The clue? Measure of energy savings, as when the meter runs in reverse

What's an eight-letter word for energy savings? On Thursday, February 1, 2024, Amory Lovins received what many crossword enthusiasts — and energy wonks — consider a lifetime honor: inclusion of "negawatt" in *The New York Times* daily crossword. In 1989, Lovins

noticed a typo in a Colorado Public Utilities Commission report with "negawatt" instead of "megawatt." He adopted the term to help popularize the value of avoiding the need to generate more electricity through smart conservation and efficiency investment.

37D. The NEGAWATT is a theoretical unit of electrical power measured in watts. It represents an amount of power saved by not consuming that energy. The term was coined by Amory Lovins, a physicist and energy efficiency expert. It is considered to be a concept that motivated the public to conserve energy.



Investing in People

RMI is training, equipping, and empowering people around the world to provide the skills required to win the clean energy race.

he shift to a carbon-free economy is the biggest economic opportunity of our era. And it starts with people. To reach net-zero by 2050, we need to train and develop a specialized workforce across the diverse ecosystem of financiers, utilities, developers, installers, and more. A recent International Energy Agency report estimated that to reach net-zero emissions by 2050, 14 million new clean energy jobs will need to be created globally by 2030, with another 16 million existing workers shifting to new roles in clean energy.

RMI has been working hard to unlock, equip, and

empower this workforce. It will take the participation of everyone to achieve a clean energy economy and no one should be left out.

Modernizing the grid with people power

Our grid of the future needs technically savvy, ambitious, future-oriented planners. To invest in these leaders, RMI launched a Transmission Fellowship Program.

In the year-long program, eight fellows were embedded in clean energy and environmental NGOs across the United States. Fellows gained hands-on experience by

Continued on page 16

Anaitee Mills,
Rochelle Johnson,
and Melissa Le Blanc
at the 2024 annual
Women in Renewable
Energy (WIRE)
network convening in
Barbados.



Personal Story

Skeeta Carrasco: Financing Critical Infrastructure Projects in the Caribbean

Skeeta Carrasco grew up in Saint Lucia, and lived without access to electricity for the first 16 years of her life. Living on a low-lying island often hit by severe weather also made her very aware of climate change's effects on aging infrastructure and across the agriculture, health, and utility sectors. Carasco knows, after years working with Saint Lucia's water and energy regulator, that what's needed are investments to climate-proof and harden infrastructure to make it more resilient to storms.

Through the Climate Finance Access
Network (CFAN), Carasco is now the Climate
Finance Advisor for Saint Lucia, helping
to unlock much needed finance for the
climate adaptation and mitigation projects
that the island wants to pursue. The island
needs upgrades; increased water storage
capacity within water systems; more water
treatment and collection systems; improved
infrastructure for roads, pipes, and intakes;
and a more resilient energy system.

But Carasco also knows that good intentions can go awry if they don't take into account the perspectives and insights

of the communities they're designed to serve. This is where key facets of Carasco's role come into play, including stakeholder consultation as part of her work to design climate finance project proposals. She meets with engineers, healthcare workers, utility representatives, community residents, and others to make sure that critical perspectives are taken into consideration. "I always knew this sort of consultation was important, but it's never been so evident," Carasco says. "Bringing those diverse perspectives and knowledge together helps ensure the success of a project."

Carasco is currently working on procuring funding for several solar microgrids on key facilities across the island including schools, hospitals, and a water treatment center. "CFAN has allowed me to connect the dots between critical infrastructure work, climate resilience, and the needs of communities," Carasco says. "I am now in the best position to make a difference, because finance is the biggest challenge that Caribbean countries face."



Accelerating US Local Clean Energy Opportunities

RMI and the Brookings Institution developed a free resource — the Clean Growth Tool — that matches cities and regions across the United States to clean energy industries and technologies. The tool shows where clean energy industries are best poised to thrive in communities across all 50 states, given existing workforce strengths and related economic capabilities, and it shows the workforce gaps that communities can bridge to improve their long-term industrial competitiveness. The tool's insights have been discussed by stakeholders across the country from economic developers in the Pacific Northwest to state energy officials in the Midwest to staff on Capitol Hill.



The Climate Finance Access Network trains professionals to better access financing for clean energy projects

Continued from page 14

supporting their organization's efforts to plan and build transmission at the pace, scale, and sophistication needed. The fellowship included a combination of industry experience, an intensive curriculum, peer-to-peer learning, and mentorship, helping to fill a critical knowledge and experience gap.

Ben Adams, a Transmission Fellow hosted by the Southern Alliance for Clean Energy — a nonprofit that promotes equitable energy access across communities in the US Southeast — called the fellowship an outstanding experience. "I came into this program with only casual knowledge of the energy sector and, thanks to a varied and extensive set of learning tools provided by RMI and my host organization, I have developed skills and knowledge that will help me make an impact on this critical component of our clean energy future," he explains.

RMI also leveraged the fellowship curriculum to offer a transmission fundamentals training program. Nearly 60 people from clean energy and environmental NGOs participated, attending a bi-weekly training course over 10 months.

In Nigeria and the Caribbean, partner utilities requested RMI's support to develop training courses and guides on battery energy storage, modeling power systems, and utility-scale solar and storage. Developed in partnership with the US National Renewable Energy Laboratory (NREL) and our regional partners, these training tools are being used by utilities across the Caribbean and Nigeria to upgrade their generation systems and provide more reliable, clean, and secure electricity.

Supporting women in the workforce

To address the lack of women in high-level energy positions, RMI supports the Women in Renewable Energy (WIRE) network, a professional networking group for Caribbean women working in energy. Gender balance in the energy workforce can breed innovation and provide agile solutions to more effectively make the shift needed for the energy transition. WIRE's goal is to boost gender equality across the energy sector by ensuring a pipeline of motivated and experienced women.

From our donors

The Heinz Endowments is thrilled to partner with RMI to support Pittsburgh's transition to a new clean energy economy. RMI's unique ability to conduct critical analysis, convene diverse stakeholders, and drive investment to the region is helping the city serve as a national model for other US cities looking to do the same."

— Rob Stephany, Senior Program Director of Community & Economic Development for The Heinz Endowments

One way that WIRE does this is through its two-year mentorship program. Each year, 12 women are selected and paired with more established women in senior leadership roles for guidance on how to make the most of their professional opportunities. The current WIRE Mentorship Program hosts 24 women across 14 nations in the Caribbean.

Shalenie Madho, a WIRE alumna from Trinidad and Tobago, says that her professional pathway was significantly shaped by her participation in WIRE. As the Climate Finance Access Network advisor in Jamaica, "WIRE was more than a network, it was a sisterhood," says Madho. "Having a supportive community is crucial for women in male-dominated fields. It can provide them with the confidence and support they need to succeed in their careers."

Building on our success in the Caribbean, RMI is starting to expand the WIRE program to Africa.

Access to finance

To build more clean energy projects, we also need to train more professionals to better access financing. RMI's Climate Finance Access Network (CFAN) has been training and deploying climate finance advisors in governments throughout the Pacific since 2022. These advisors develop high-quality projects to make their islands more resilient to climate change and to help meet their climate goals.

In the past year, three more countries and the international development organization, The Pacific Community, were added to the mix, for a total of 12 Pacific advisors who have mobilized \$67 million. The money unlocked not only helps countries with adaptation and mitigation, but also creates more local clean energy jobs.

This past year, CFAN expanded into the Caribbean, with eight advisors supporting The Bahamas, Barbados, Grenada, Jamaica, Saint Vincent and the Grenadines, Saint Lucia, the CARICOM Development Fund, and The Caribbean Community Climate Change Centre.

"We take a practical approach to addressing the climate challenge, one that is driven by country priorities and is fundamentally people-centered," says Laetitia De Marez, RMI CFAN director. "In this effort to unlock climate finance, our advisors are the tip of the spear."

Globally, CFAN advisors have a project pipeline totaling US\$1.3 billion. These projects cover climate-resilient agriculture, sustainable forests, waste management, clean mobility, renewable energy, and more.

In the clean energy race, climate action is more than just about technology or economics, it's about people. RMI is working hard to ensure we have enough people with the right skills and know-how to do the work we need to win the race for our future. ^^



A Community to Catalyze **Energy Solutions**

Launched this past year, RMI's Regulatory Collaborative (Reg Lab) is a cohort-style initiative that builds regulatory staff capacity and develops cutting-edge solutions to pressing issues. The first Reg Lab cohort brought together staff from 13 US states to explore the cutting edge of planning and federal funding. The goal was to help utility resource plans incorporate Inflation Reduction Act (IRA) opportunities to help utilities meet future grid needs. A new toolkit informed by the cohort, Planning to Harness the Inflation Reduction Act, provides a suite of tools and benchmarks that regulators can leverage to ensure that resource plans optimize federal funding to benefit ratepayers.

Impact of the Acceleration Fund



With support from the Acceleration Fund, we are expanding our efforts to boost gender equality across the energy sector and will launch a WIRE technical track focused on large-scale energy storage projects, helping build capacity

among women energy leaders in the Caribbean Islands. A donor-supported source of flexible funding, the Acceleration Fund helps us scale proven work rapidly and broadly and refine emerging projects that can offer a big return on philanthropic investment.



China's Clean Energy Momentum

How RMI is supporting the world's top carbon emitter and biggest renewable investor in driving global decarbonization.

he world can't achieve a clean and secure energy future without China, the world's highest emitter of carbon. Fortunately, China is now the world's leader in clean energy due to its record installations of clean electricity generation and its electrification efforts.

The Chinese government has pledged to peak carbon emissions before 2030 and achieve carbon neutrality before 2060. In 2013, RMI started working in China to help make that a reality. Through our work, we are assisting China in reducing its dependency on fossil fuels and setting a pathway for other countries to follow. The country is making significant progress. In

May of 2024, despite rising electricity demand, clean energy generated a record high of 44 percent of China's electricity, reducing coal's share to its lowest ever — 53 percent. Yet to reach its ambitious goals, the country needs to do even more, which is why RMI is providing research and analysis to Chinese policymakers, research institutes, businesses, industry associations, and other stakeholders.

And that research has been having an impact on the right people, including members of the China Enterprise Confederation, which represents China's employers and enterprises (see quote on page 20).

Continued on page 20



At left, a solar farm in Qinghai province, and, above, the Baihetan hydropower station.

Personal Story

Guo Qian: Entrepreneur Producing Eco-Friendly Products for High-End Hotels

China's rural areas are losing young laborers as they move to cities. This lack of laborers and technological capacity makes it challenging to implement rural climate solutions. Enabling young people to return to their hometowns to start businesses and nurturing young climate leaders can help create sustained momentum for the rural equitable climate transition. Guo Qian, who was born in 1994 in Ganjiagou Village of Qingshen County in Sichuan Province, successfully started her own business after returning to her hometown with the support of the government, and has become a role model for rural equitable climate transition in the region.

Born into a bamboo weaving family, Guo Qian tapped her experience in hotel management after graduating from university to start her own business producing green and eco-friendly products for high-end hotels based on the bamboo products of her hometown. The Qingshen County government offered robust support for Guo Qian's startup — Meishan Yisenfa Trade Co, Ltd. To date, Meishan Yisenfa is supplying nearly 500 hotel brands with annual sales of nearly \$4 million.

The company creates flexible jobs for more than 13,000 people annually, enabling the local farmers to increase their income and revitalize the local industry, while achieving the benefits of emissions reduction through the replacement of plastic with bamboo. In addition, Guo set up and chairs the Qingshen Association of Entrepreneurship in Returning to Rural Areas, with assistance from the local government, to attract more university graduates and other returning and young entrepreneurs committed to the sustainable development of their hometowns.

The policy support of the local government was critical to Guo's success. However, non-governmental organizations also have important roles to play. For example, RMI provided strategic and technical support to an international youth entrepreneurship competition, in particular for innovation in rural carbon neutrality. Nearly 1,000 people entered the competition and more than 20,000 participated in online learning. Such activities are expected to cultivate young climate leaders like Guo to accelerate the rural equitable climate transition.

Paving the way for a renewabledominated power system

China has the largest fleet of power plants in the world, and it contributes around 40 percent of the nation's carbon emissions. RMI is working to transition the giant and complicated power system from coal to renewables. One key bottleneck is the mismatch between renewable energy supply and electricity demand. Making the power grid more flexible so it can quickly and efficiently adjust to changes in energy supply and demand could help get more renewables on the grid faster.

In May 2024, RMI partnered with Tsinghua University to publish a report on evaluating and enhancing system flexibility. The report focused on Qinghai province, a renewable energy center where 90 percent of electric power is zero carbon, and Guangdong province, which is still dominated by fossil fuels, to provide province-specific assessments and recommendations on enhancing system flexibility by incorporating zero-carbon resources such as battery storage, concentrated solar power, and green hydrogen.

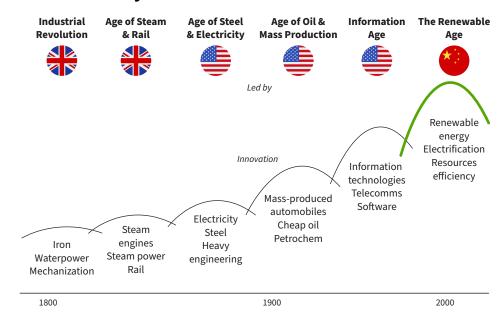
Decarbonizing heavy industry

Iron and steel manufacturing is one of the world's most carbon-intensive industries. China produces more than half of the world's iron and steel, and the emissions from that are responsible for about 17 percent of the country's total carbon emissions. So climate actions by Chinese iron and steel companies are critical not only to China's carbon neutrality goal, but also to the success of the global energy transition.

In June 2024, RMI published a report to help China's iron and steel companies develop strategies to reduce their emissions. From target setting to developing innovative financial mechanisms, the five suggestions outlined in the report will help companies find feasible carbon reduction levers and set practical climate targets.

However, decarbonizing heavy industry cannot happen without financial support. In March 2024, RMI and the Climate Bonds Initiative released a report on financing the

Six Waves: Major World Transitions



Source: Carlota Perez (first five), RMI (Renewable Age). For more see X-Change: The Race to the Top.

A Race to the Top

In the race against climate change, China is making great strides. In RMI's 2024 report X-Change: The Race to the Top, Kingsmill Bond and others describe how China is leading in cleantech supply chains, renewable energy, electric vehicles, and electrification. China's battery and solar manufacturing capacities have grown on average by 78 percent and 26 percent per year, respectively, over the past decade. When it comes to deployment, China

added more solar capacity and sold more electric vehicles in 2023 than the United States has in 30 years. And China has become the first major electrostate, quietly electrifying all its end-use sectors. X-Change: The Race to the Top shows that although China is leading, it is crucial to shift our focus from mere competition to concerted efforts in achieving a comprehensive energy transition.

From our partners



RMI has a highly professional and efficient team that publishes thorough and comprehensive research. Their reports and insights are widely appreciated and recognized by the companies on our platform, especially by some large enterprises." — Hongren Zhu, Executive Vice-President and Chairman of the Board, China Enterprise Confederation

transition of three heavy industry sectors steel, cement, and petrochemicals — to low carbon. The report presents guidance on matching the capital needed with available financial instruments and suggests ways to design financing to channel more funds into the low-carbon transition of heavy industry.

Zero-carbon home heating

Using RMI's analysis, 20 million homes in the Yangtze River Delta (YRD) region will have heat pumps by 2030, avoiding 10 million tons of carbon emissions. The YRD region, a manufacturing hub and home to 200 million people without adequate

winter heating, is seeing an increasing investment in home heating systems. The energy demand for those systems, if relying on fossil-fuel-powered inefficient heating units, will be unsustainable.

RMI analyzed a zero-carbon residential heating pathway for the region, focusing on accelerating the adoption of heat pumps and incentive mechanisms essential to overcome the relatively high initial installation costs and the lack of willingness from market actors. RMI's efforts have galvanized action from value chain players, including leading developers, manufacturers, the state grid, and government officials, to advance clean heating in the region. This not only contributes to zero-carbon heating in the YRD but also accelerates the global adoption of heat pumps to achieve zerocarbon heating on a larger scale.

Renewables and beyond

China's leadership in the renewable revolution is just the beginning. Using RMI's insights, it is also working on many other aspects of the energy transition. Over the past year, RMI has produced research and analysis on the potential for having industrial companies reduce their electricity consumption or shift it to off-peak hours when demand is lower and developed a roadmap to accelerate sustainable aviation fuels. We also initiated pilot projects to implement climate solutions in rural communities, and advanced the production and consumption of biomethane from organic wastes like crop residues, livestock manure, food waste, and industrial wastewater.

China's lead in the energy transition shows that exponential change is happening and is likely to spread to the rest of the world, as costs decrease, technology transfer speeds up, and fossil fuel demand declines. The nation's commitment to clean energy is reshaping the global landscape, and RMI is proud to have informed this transformative journey. With continued collaboration, innovation, and investment, China's leadership can serve as a beacon for other nations to follow, ensuring a sustainable and prosperous future for all.



Promoting Electric Trucks

Although China's EV sales have been soaring, electric trucks are lagging due to cost and insufficient infrastructure. This past year, RMI's China team has been working on changing that. We published a roadmap and feasibility analysis comparing fossil fueled, electric, and hydrogen fuel cell trucks. We also initiated the Shenzhen-Dongguan-

Huizhou electric heavy-duty trucks pilot project with 45 trucks operating on their daily delivery routes for 4–6 months.

The pilot is the first large-scale electric heavy-duty trucks pilot in port drayage — moving containers from ports to other locations — and will serve to identify the barriers and potential solutions to electrify trucking in China.

A Rural Equitable Transition

China's rural areas, home to 500 million people who still live on less than half of the income of those in cities, feed nearly one-fifth of the world's population. This essential rural land is especially vulnerable to climate risks. Climate actions — such as renewable development, natural carbon conservation, and climate adaptation — must be carried out in an equitable and inclusive manner to advance rural development.

In December 2023, RMI's China team launched the Rural Equitable Climate Transition Index Tool, which provides a provincial-level landscape of the current status and future potential of carbon neutrality and equitable development in rural China. This tool helps inform policy, investment, technological innovation, and institutional design to ensure that the social, environmental, and economic benefits of climate action are distributed in an equitable way.

Access

Strengthening Communities Globally

From Nigeria to Texas, RMI is helping people stay powered up with reliable clean electricity.

lectricity is critical to our everyday lives.
Yet many of us in the United States and other industrialized nations take it for granted. With a flick of a switch, we have light. With an electrical outlet and a cord, we can keep our food cold, our air conditioners humming, and our medical appliances online.

But that reliability isn't available elsewhere in the world, and with the increasing severity of storms, at times it's not even a given in the United States either. RMI is working to bring clean, reliable electricity to all. From rural communities in Africa to climate-vulnerable islands to US grids that might go down from wildfires or hurricanes, we are supporting communities in staying powered up.

Powering a brighter future for Nigeria

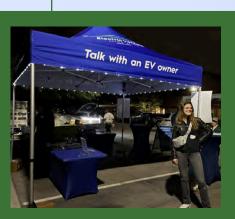
Like much of sub-Saharan Africa, Nigeria struggles to provide its growing population with sufficient electricity. Electricity demand far outstrips the supply, meaning constant power outages. Yet, located just north of the equator, Nigeria's potential to generate solar power rivals or exceeds the best conditions in Europe and the United States.

So RMI, along with the Global Energy Alliance for People and Planet (GEAPP) and Nigerian utilities and solar developers, have implemented five

Continued on page 24

United States: Microgrids

RMI organized a cohort of 13 local governments, Tribal communities, churches, and schools that want to take advantage of new federal funding to implement microgrids.



United States: EJ Communities

RMI engaged with residents in communities that lack EV charging infrastructure to learn about their transportation needs and propose solutions. We published our findings in a report, *Plugging into Mobility Needs at Lower-Income Multifamily Housing*, that helped lead three major US cities to commit to install EV charging ports at more than 10 low-income multifamily communities.



Nigeria: Powering Minigrids

RMI and the Global Energy Alliance for People and Planet's solar minigrids bring reliable electricity to thousands of people. RMI is also working to transform agricultural processes with electricity.



Dominica: powering resources for communities

RMI provided funding and technical assistance for two solar microgrids on the Island of Dominica following damage from a hurricane.



India: supporting electric vehicles

RMI created a practical guide for how market actors and financiers can more effectively manage and mitigate electric two- and threewheeler lending risks.

Access



A connected minigrid in Northern Nigeria.

Continued from page 22

interconnected solar minigrids. Today, two are operational — in the communities of Zawaciki and Toto — and three are in development. These minigrids are bringing reliable electricity to thousands of people, such as the Zawaciki minigrid, the first interconnected minigrid in Northern Nigeria.

Whether on remote farmland or wired into a buzzing city neighborhood, an interconnected minigrid supplies an underserved community that's already connected to the conventional grid but that faces unreliable power.

Impact of the Acceleration Fund

With support from RMI's Acceleration Fund, we are continuing to strengthen global communities by scaling electric two- and three-wheelers in Nigeria and Indonesia. A donor-supported source of flexible funding, the Acceleration Fund helps us scale proven work rapidly and broadly and refine emerging projects that can offer a big return on philanthropic investment.

Interconnected minigrids consist of a renewable energy source such as solar panels, and sometimes battery energy storage and a backup generator. They are connected to the main electrical grid and can buy energy from the main grid when needed, especially at night, to reduce the cost of battery backup.

For example, until recently, the 1,000 homes and businesses in northern Nigeria's Zawaciki housing settlement had about four hours of electricity each day. And at times, the enclave went days without any electricity at all. Now, they have 16 to 20 hours of steady power daily from the 1 megawatt of solar panels and diesel generator backup.

Agriculture is the backbone of Nigeria's economy, but smallholder farmers are struggling with the impact of climate change. Income-generating energy allows rural farmers and entrepreneurs to utilize clean electricity to support their businesses and increase their incomes. That is why RMI is working with Nigeria's Rural Electrification Agency and the Global Energy Alliance for People and Planet to power agricultural processes with electricity.

Through our Energizing Agriculture Program (EAP), we are helping farmers replace their fossil fuel powered

Continued on page 26

Personal Stories

Three Entrepreneurs Embody the Impact of Access to Reliable Electricity

Meet some of the people who live and work with reliable electricity thanks to RMI, GEAPP, and local partners



Mary Alaele Baelanki is a fashion designer who makes women's and men's clothing out of a stall at Wuse market, the largest market in Abuja, Nigeria, with over 2,000 stalls. The market is powered by a 1 megawatt solar microgrid with battery storage that runs Baelanki's sewing machines and iron.

"It's good working with the solar panel because even though rain is falling the light is OK. And there is no need to buy [fuel] for our generator."



Aheji Gembo runs a small shop with cold drinks out of his home in the Zawaciki housing settlement in northern Nigeria. The unreliable power from the grid made his business challenging. But he now has power from the 1 megawatt solar minigrid powering the community, helping him grow his small business from one fridge to four.

"Sometimes we even spent two days without electricity. But now that we have this minigrid... they give us at least 16 to 20 hours of electricity a day, every day."



Blessing Bitrus is a fish trader in Kiguna community, Nasarawa State, Nigeria, who used to buy fish and sell it at a low price because she had no refrigeration. She used to lose up to 50 percent of her fish due to spoilage. Now the community has a 60 kilowatt solar hybrid minigrid that powers a three-ton cold room.

"This cold room has been very helpful. We are very appreciative of the cold room. Now we'll buy fish, plenty of fish, and keep it there so our fish doesn't spoil. And we don't have to sell our fish very cheaply."

Financing Electric Two- and Three-Wheelers

India has the world's largest fleet of twoand three-wheeled vehicles, which are used to make deliveries, as taxis, and for personal trips. But many of India's cities have terrible air quality — a large part of which is due to the millions of petrol burning vehicles on their roads.

Shifting these two- and three-wheelers to electric, in India and around the world, is crucial for both environmental and equity reasons. But limited access to financing to

help buy new, cleaner electric vehicles is a barrier. Today, just over 6 percent of two-wheelers and 21 percent of three-wheelers are electrified, versus the target of 30 percent by 2030, which would help reduce air pollution, save money, and improve health.

RMI's report, *De-Risking Lending for a Brisk EV Uptake*, is a practical guide for how market actors and financiers can more effectively manage and mitigate electric

two- and three-wheeler lending risks. Indian financiers have been using the findings in the report to improve and grow their financing programs, including the Electric Mobility Financiers Association of India (EMFAI). The implementation of these de-risking measures has now become a core strategy for EMFAI, and the identified practices are being leveraged to reduce perceived risks in electric vehicle financing.



A downed tree in Houston following a hurricane in 2024.

Continued from page 24

equipment with electric mills, cold storage, and vehicles. EAP's latest study, *Harvesting Sunshine*, shows how productive uses of energy can change lives and transform power system economics, greatly reducing the cost of producing electricity. At the same time, rural communities can reap the benefits of more efficient equipment that produces higher-quality outputs.

"By integrating renewable energy into agricultural processing, we've reduced energy costs by up to 60 percent in many instances," says RMI's Deji Ojo. "Simultaneously, our innovative technologies have improved product quality, enabling farmers to command higher market prices."

Electric two-wheeled vehicles also are making a big

impact. "Compared to the [motorbike] that we used to use, this one makes life easy," says Yakubu Abdulrahman Gwam, a field officer with One Acre Fund, a group that works with millions of smallholder farmers throughout sub-Saharan Africa. "Sometimes, to go to the field, you have to spend almost 3,000 naira [\$1.83] to buy fuel. But with an electric two-wheeler, if you charge with just 500 naira [30¢] it will last almost three days."

Reliable power for storm-ravaged islands

Solar microgrids are also helping climate-vulnerable islands with resilient local energy. The Morne Prosper Primary School and Paix Bouche Primary School were both severely damaged by Hurricane Maria in 2017, disrupting the education of hundreds of Dominican children. RMI, in conjunction with the Clara Lionel Foundation, the Dominica Ministry of Education, and local community members, rebuilt the schools with solar and battery-powered microgrids that are reinforced to

From our donors

Our work with RMI has shown that many emerging economies are already leading on EVs.

We are collaborating with RMI's expert teams in Nigeria and Indonesia to demonstrate how philanthropy can supercharge this transition to boost local economies, create cleaner air, and support an equitable shift to clean energy."

— Rebecca Fisher, Drive Electric Program Director, ClimateWorks Foundation

EV Charging Solutions for All

Much of the current electric vehicle (EV) charging infrastructure in the United States is concentrated in higher-income communities characterized by single-family housing. This past year brought an unprecedented level of funding for EV charging infrastructure, and we must ensure that those charging solutions are affordable, reliable, and safe for all, including multifamily housing residents and lower-income neighborhoods.

So RMI engaged with residents in those communities to learn about their transportation needs and propose solutions. We published our findings in *Plugging into Mobility Needs at Lower-Income Multifamily Housing*, providing scalable, replicable solutions that policymakers and utilities can use to prioritize equity in their transportation electrification efforts. So far, the findings have been used by utilities and departments of transportation in Portland, Ore.; Phoenix, Ariz.; and Atlanta. Collectively, the three cities have committed to install new EV charging ports at more than 10 low-income multifamily communities.



"RMI was instrumental in helping Portland receive important community input which has informed our approach to EV charging-related programs and policy for low-income residents living in multifamily housing."

Ingrid Fish, transportation decarbonization policy expert at Portland's Bureau of Planning and Sustainability

withstand a Category 5 hurricane. The schools are acting as hurricane shelters for the wider community.

Since RMI started working in the Caribbean in 2014, we have been involved in 19 solar-powered microgrids, providing reliable power for more than 31,000 people.

Vulnerable grids in the United States

Even in the United States, where many take electricity for granted, vulnerable communities often lose power due to increasingly severe climate change-fueled storms. This past July, more than 2.2 million Texas homes, schools, and businesses lost power when Hurricane Beryl barreled across Houston. And 12 of the 22 deaths reported were due to electricity outages. Solar-plusstorage microgrids can help keep people safe during the next hurricane to hit the Gulf Coast.

This past year, RMI organized a cohort of 12 local governments, Tribal communities, churches, and schools from around the country that want to take advantage of new federal funding to implement microgrids. The cohort is participating in RMI's Microgrids for Resilient Communities Workshop, a series of eight workshops where community leaders can learn the ins and outs of financing, designing, deploying, and maintaining solar-plus-storage microgrids.

These microgrids will serve as community resilience hubs, not only keeping the power flowing in an outage, but also providing critical services in a disaster. They will ensure that resources stay in communities to facilitate economic development, create savings, provide resilience, and help the communities achieve their emissions goals.

US utilities are also integrating renewable microgrids into their business models with the support of RMI's Virtual Power Plant Partnership (VP3). Virtual power plants (VPPs) are an aggregation of distributed energy resources such as electric vehicles, smart thermostats, heat pumps, and solar-plus-storage systems.

During normal operating conditions, these assets can be harmonized to help balance electricity demand and supply on the grid, increasing reliability, lowering customer bills, and decreasing system emissions. During extreme weather events, microgrids enrolled in VPPs can provide critical services including backup power. A recent report from the Brattle Group found that across the United States, using VPPs rather than building new large power plants could save more than \$15 billion annually by 2030.

With 19 members from the automotive, building, energy service, and software sectors, VP3 supports policy updates, regulatory reforms, and market rules that can unlock and scale VPPs. This past year, RMI published *The VPP Flipbook*, a collection of VPP case studies highlighting key program design elements and takeaways to help utilities and other stakeholders implement efficient and impactful VPP programs.

In the 21st century, with all of our technological advances, no person should be without critical services. From Africa to the Caribbean to the United States, RMI is working to ensure everyone has access to the clean, affordable electricity they need.

Investment

Driving Investment in Clean Energy

Suppliers don't grow if they can't connect with customers. So when it comes to scaling carbon-free solutions, RMI is banding together buyers to nurture demand and grow markets.

any of the solutions to our most pressing decarbonization problems exist today, but not at the scale or price point that the world needs to reach its net-zero goals. In heavy industry, one of the most challenging sectors to decarbonize, solutions can get lost in a chicken-and-egg paradox. The high up-front investment required to produce clean products forces suppliers to increase prices, at least initially, making it harder for costlier, lowemissions products to compete in traditional markets. The product languishes in the purgatory of "almost there."

At RMI, we know that "almost" is not enough to face up to the challenge of catastrophic climate change, so we've devised a solution: buyers' platforms that bring customers together to aggregate demand. Much like how crowdfunding platforms such as a startup's Kickstarter campaign can prove that customers are ready to pay for a product that may not yet exist, these buyers' platforms signal that real customers are committed to paying for future products.

Alongside our partners, RMI has played a key role in several platforms and collaborations bringing together customers in the aviation, shipping, steel, and concrete sectors.

The Sustainable Aviation Buyers Alliance:

To accelerate the shift to net-zero aviation, SABA facilitates the pooling of demand from interested airlines, shippers, and others for sustainable aviation fuel certificates (SAFc); in turn, vendors compete on price to deliver these pooled orders, leading to lower prices and greater volume. In April 2024, the largest-ever collection of deals to purchase high-integrity SAFc went through: 20 corporations committing to approximately \$200 million worth of SAFc over five years — equal to about 50 million gallons of high-integrity SAF or 500,000 tons of abated CO₂ equivalent (CO₂e). This is roughly equivalent to the emissions of 3,000 fully loaded passenger flights from New York City to London. With that milestone deal on the books, more are expected soon.

The Zero Emissions Maritime Buyers Alliance:

ZEMBA is a first-of-its-kind buyers' group within the maritime sector with the mission to accelerate commercial deployment of zero-emission (ZE) shipping fuel and technologies, enable economies of scale for freight buyers and suppliers, and help cargo owners maximize emissions reduction potential beyond what any single buyer could accomplish alone. In April 2024, ZEMBA, in collaboration with RMI and the

Continued on page 30



RMI's Catalytic Climate Capital approach "de-risks" clean energy projects so they are seen as secure and profitable bets for investors, helping island communities like Saint Lucia secure millions in clean energy investment to build critical solar and battery storage projects.

Cleaner Energy through Smart Accounting

A book and claim system separates a product's environmental attributes from its physical form, allowing the two to be sold separately. These systems are helpful when direct access to a physical product is limited. So a kilowatt hour of electricity produced from wind can be divided into the electricity plus the value of the emissions reductions it delivers relative to the grid average. The producer (say, an Illinois wind farm) can sell the power to its local market and separately "book" and sell the emissions savings to a different buyer even one far away. The buyer (say, a big Florida supermarket that can't buy renewable power from its local utility) can "claim" the emissions benefit from the Illinois wind power. Pioneered for renewable power markets, book-and-claim systems have since expanded to shipping and aviation fuel, along with the production of plastics, cement, steel, and other materials.

Mærsk Mc-Kinney Møller Center for Zero Carbon Shipping, announced that it successfully completed its deal with global container line Hapag-Lloyd as part of a collective tender process. Under the agreement, over a dozen companies committed to purchase the emissions reduction credits that will avoid 82,000 metric tons of CO₂ equivalent over two years through Hapag-Lloyd's independently certified and exclusively waste-based biomethane service.

Sustainable Steel Buyers Platform: SSBP is a first-of-its-kind buyers' group working to accelerate the path to netzero steel by driving investment in deeply decarbonized ironmaking technologies, stimulating the initial supply of near-zero emissions ore-based steel, and supporting end-users of steel in achieving their supply chain emissions targets. In September 2024, RMI launched a Request for Proposal to steel producers on behalf of SSBP membership for near-zero emissions steel for delivery into North America before 2030. This inaugural procurement process aims to provide clean steelmakers with the bankable agreements they need to spur project investment and accelerate the energy transition across this sector.

Activating demand for low-emissions cement and concrete: RMI is working with the Center for Green Market Activation (GMA) to strengthen demand for low-carbon concrete. The first phase consists of the design of a standardized "book and claim system," a well-established market mechanism that nurtures the growth of clean supplies (see sidebar page 29). In the second phase, RMI and GMA will aggregate demand for direct and indirect procurement of low-carbon concrete.

These market signals are just the beginning for these ambitious buyers' platforms, and more offtake agreements are planned in the coming months. These organizations will continue to facilitate demand aggregation as markets mature, scaling the demand signal needed to catalyze supply growth of lower-carbon products, and driving the lower-carbon product markets toward cost-parity. At RMI, we know that change can't happen alone, but even the heaviest lift can be achieved when we band together.

Catalyzing growth in the Global South

This year, RMI launched the Catalytic Climate Capital (C3) team to coordinate RMI's efforts to mobilize, scale up, and catalyze climate finance globally. Led by RMI energy investment expert Ije Ikoku Okeke, C3 focuses on helping the climate finance community in the Global South move from small kilowatt-scale, grant-funded clean energy pilots to gigawatt, commercial-scale projects funded through a mix of private, public, and philanthropic partnerships.

RMI is scaling financial impact through Project
Preparation and Development Facilities (PPDFs), which
support utilities and project developers in securing
commercial financing and bringing projects online
— while building their capacity to scale this work
independently in the future. A relatively small PPDF
investment can de-risk a project and create a significant
multiplier effect. In Saint Lucia, for example, RMI's
\$400,000 PPDF generated a \$7.4 million final project
investment; in the Bahamas, \$200,000 led to \$2.7 million;
in Monserrat, \$600,000 created \$9.2 million. But this is
only the start, by leveraging RMI's unique expertise, C3's
goal is to mobilize 10 GW of bankable projects over the
next three years.

Groundbreaking Corporate Partnership to Transform the Grid

Akamai, Apple, General Motors, HASI, Meta, Microsoft, Prologis, Salesforce, Walmart, and other leading companies have joined with RMI to launch the Zero-Emissions | Reliability Optimized Grid Initiative, or ZEROgrid — a comprehensive roadmap to accelerate the transition to a zero-emissions grid.

This is a first-of-a-kind corporate effort to ensure rising electricity demand — driven by industrial electrification and the rise of electric vehicles and artificial intelligence — is met with clean, reliable energy.

To do this, the focus and the incentives for companies must expand beyond



the traditional practice of buying more renewables on the grid where it is convenient.

Businesses can play a leading role by working across systems, with grid

operators and policymakers, to drive decarbonization alongside reliability and affordability.

Already, ZEROgrid has assessed best practices to define how corporations can play a key role in clean policy advocacy, cleantech investment, research and development, piloting new technologies, and operational changes. Now, they are turning their attention to pilot projects that incorporate grid enhancing technologies, virtual power plants (energy resources like solar panels and batteries that can serve an electricity grid during high demand), and more.



RMI's Joey Cathcart (L) and Thomas Koch Blank (R) before takeoff.

RMI Takes First-Ever Sustainable Commercial Flight

This past year marked a turning point for sustainable aviation. In November 2023, a Virgin Atlantic passenger jet flew from London to New York using 100 percent sustainable aviation fuel (SAF), a historic first. The fuel — made from organic waste products and farming residues — when combusted in a jet engine, can cut carbon emissions by up to 70 percent.

RMI's Joey Cathcart and Thomas Koch Blank were aboard that historic flight where they also helped trial new technologies to track and characterize contrails — those wispy clouds of condensation that follow aircraft — which can increase the planet-warming impact of flying. Developed with Virgin Atlantic, this innovative in-flight contrail observation reporting process is quickly proving to be easily applied, helping to enhance contrail prediction modeling accuracy and improving prevention.

For Cathcart, a lifelong flying fanatic, the SAF-powered flight is a step toward normalizing this game-changing fuel. "For me, it's incredibly exciting. It's about demonstrating that this shouldn't be outside the norm," Cathcart says. "Success is, more than anything, just showing that this can be done."

With these and other collaborative approaches on the horizon, the huge opportunity to address the climate impact of aviation is becoming less cloudy.

SAF Policy Landscape and Existing SAF Projects

Low carbon fuel standard (LCFS) or similar policy in force
Pending or failed LCFS

or similar policy

Conversations in progress
on LCFS or similar policy

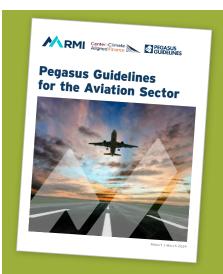
Previously considered LCFS

No reported activity

♣ Direct incentives for SAF in the states of Washington, Colorado, Minnesota, and Illinois

Source: RMI analysis





A Toolkit to Finance Green Aviation

In April 2024, RMI announced the launch of the Pegasus Guidelines, the first voluntary climate-aligned finance framework for the aviation sector, designed to help banks independently measure and disclose the emissions intensity and/or climate alignment of their aviation lending portfolios compared to a 1.5°C scenario. Five leading global banks — BNP Paribas, Citi, Crédit Agricole CIB, Société Générale, and Standard Chartered — supported the guidelines' development.

Underpinning the Pegasus Guidelines is an understanding that financial institutions and airlines — together with policymakers, customers, airports, fuel producers, and NGOs — must collaborate to help the industry decarbonize. Cooperation between banks, investors, and policymakers will be particularly important to accelerate the production of sustainable aviation fuel (SAF) — the airline sector's best solution to cut climate pollution.











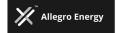




























mmgbia

















Innovation

Accelerating the Energy Transition through Innovation

RMI is supporting climate tech startups and leveraging climate data where it matters.

t RMI, our eyes are always on innovation — how we can do more with less, how we can think of a new way to fix an old process, or how we upgrade a whole system. This year, we moved several projects forward that marry our renowned analytical work with the latest technological tools — from the digital world to space

Nowhere is our commitment to innovation clearer than in our work to support climate tech leaders. Through Third Derivative,

RMI's climate tech startup accelerator and innovation engine, we are helping the next generation of climate innovators make their visions a reality. For Third Derivative, support means going beyond identifying promising technology and facilitating earlystage finance: it helps founders refine their product-market fit, connects them with strategic corporate partners, capital partners, and mentors, and coaches them throughout their company's growth journey.

Since Third Derivative was founded in 2020, we've supported more than 220 startups in areas including transportation, electrification, carbon dioxide removal, and many others. Those startups have caught the eye of investors around the world, and to date they have raised more than \$2 billion to bring their ideas to life.

Continued on page 34

Gaiascope





ıшpulse







Mantel

mimic

The logos on this page are companies in Third Derivative's portfolio.









Ce

C



COFLOW JET WIND TURBINES







ContinuumAg





























































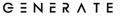


























RIZOME



Scanalytics Inc.



SCAPE































































































volt14



W@steX



<u></u>₩ WILD



























Bringing the Heat

Thermal batteries are hot. The technology, which promises to help displace some of the 20 percent of energy — usually derived from fossil fuels — that goes into industrial heating, is causing a lot of excitement, ranking as the reader's choice for 2024 breakthrough technologies in MIT Technology Review.

So how do they work? While traditional batteries store electrical energy, thermal batteries store heat. The heat is generated using renewable energy, using principles similar to a toaster's electric coil, and the heat is then stored in bricks (either via commercially available bricks or another highly heat-trapping substance). The heat-holding properties of these bricks make it an uncomplicated solution to some of renewable energy's storage challenges. When needed, the heat can be used to run turbines, creating more electricity, or transferred directly for use in industrial applications.

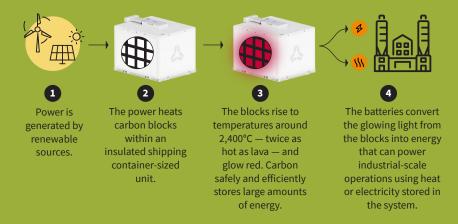
One company innovating in this space is Antora, which RMI has supported since late 2020 when the company joined Third Derivative's inaugural accelerator cohort. Antora's thermal batteries use renewable electricity to heat blocks of solid carbon to glowing-hot temperatures in an insulated module. The stored heat is then delivered at the scale and temperatures that large industrial operations demand.

Antora's technology caught the eye of the *Wall Street Journal* in February and led to a long-form feature on the company. This attention came as Antora announced a \$150 million Series B funding round that

will be used to ramp up US production of their factory-made batteries.

Success has continued to follow Antora throughout the year. In June, the company was selected for an additional \$14.5 million award by Advanced Research Projects Agency - Energy (ARPA-E), a US Department of Energy program dedicated to supporting high-potential, high-impact energy technologies in their early stages.

How Thermal Batteries Work



Continued from page 32

Combating climate change with artificial intelligence

RMI and Third Derivative exist at the cutting edge of technological progress, and that includes the field of artificial intelligence (AI). As part of our current cohort of startups, we're proud to support a remarkable mix of trailblazing innovators around the world. For example:

- **Windscape** is helping wind farms capture more wind and generate more power. The Berkeley (Calif.)-based startup uses AI to synthesize weather, topographic, and other factors to boost wind production and improve predictability for energy markets and the grid. The benefit: More clean electricity for the grid from existing facilities and for operators, owners, and financiers, improved economics.
- Al is supporting classic brick-and-mortar businesses, too. San Francisco-based C.Scale enables whole-life

- carbon strategy for building designers, owners, and asset managers at a fraction of the cost and effort of competing solutions. Powered by machine learning, their models and planning tools help optimize a building through every stage of a long life from design, through construction and active use, to demolition. The upshot? Structures built using lower-carbon intensity materials, with technologies that lower ongoing energy consumption and related emissions, yielding substantial reductions in lifetime emissions.
- Swedish startup rebase.energy uses AI to empower energy traders and data scientists with energy forecasting and modeling. The company's open energy modeling platform feeds in over 200 gigabytes of data daily, providing detailed forecasts for energy demand, as well as wind and solar generation conditions. With better data, energy planners can make better decisions, use less energy, and plan for future loads.



 In Mexico, BioEsol is speeding the energy transition by using AI-powered battery technology to help bring reliable, renewable energy to small and medium enterprises. BioEsol's products are tailored to customers who prize reliable energy access at all times, even during power outages.

RMI is also building out its own internal infrastructure to leverage AI across the institute. Drawing on 40-plus years of RMI analysis, data, and whole-systems thinking, a home-grown AI holds the promise to rapidly synthesize and deliver sophisticated guidance on climate technology, policy, finance, and other key factors speeding the energy transition. And this year, RMI continued to grow and fundraise for its Software, Product, and Data (SPD) initiative, helping navigate opportunities to address environmental challenges using exponential technologies like AI.

What's ahead: Bringing innovation to industry

Tackling the impact of heavy industry, which accounts for 30 percent of global carbon emissions, is more important than ever. In August 2024, we launched the Industrial Innovation Cohorts Initiative to decarbonize some of the most complex sectors. This initiative will assemble three groups of startups aimed at decarbonizing the cement, steel, and chemicals industries and provide resources to help them advance and scale novel technologies.

We know we can only achieve the rapid, massive tech deployment needed to address climate change by giving more innovative entrepreneurs a chance to participate and prosper. We are always on the lookout for collaborative partners in high-impact areas as we speed toward a clean energy transition.

The Tech to Take on Methane

his year RMI continued to make strides in tracking methane, a superpotent greenhouse gas with up to 80 times the planetwarming potential of carbon dioxide. To rapidly bend the world's emissions trajectory toward a safer path, minimizing methane emissions as quickly as possible offers one of the fastest solutions.

The tools we're using to track and stop methane are improving quickly. Today, they not only span the globe — they also orbit the globe. And thanks to continued support from Bloomberg Philanthropies, RMI will be able to provide the transparency and accountability frameworks to help track and drive methane emissions reductions from the oil and gas industry. Here are some of the ways we're using technology tools to advance our methane work.

WasteMAP: Open Platform on Landfill Emissions

Methane warms the planet even faster than carbon dioxide, but it often flies under the radar. One major source of methane comes from landfills, when organic waste decomposes and releases the gas into our atmosphere. With WasteMAP, a partnership between RMI and Clean Air Task Force, we've created an open, online platform that aggregates and maps reported, modeled, and observed waste methane emissions data. It also features a decision support tool based on this data for policymakers, landfill operators, and other stakeholders, allowing them to establish baseline

methane emissions and model alternative scenarios with improved waste management practices. WasteMAP is an example of the creativity, innovation, and transparency that RMI strives for in all its work and we are convinced it will become a pivotal tool to inform methane reduction in the waste sector.

Our focus on landfills is already finding its audience. Earlier this year, RMI's Tom Frankiewicz briefed the US Senate Environment and Public Works Committee on landfill methane and the topic was included in the Environmental Protection Agency's regulatory agenda.

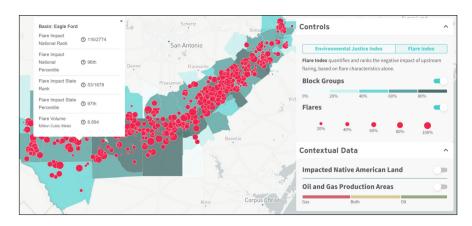


RMI's Tom Frankiewicz at a US Senate Committee.



EJ Flaring Map: Impacts on Vulnerable Communities

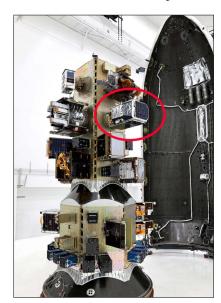
When oil and gas facilities burn off — or flare — unwanted gas, they produce methane emissions estimated at levels five times greater than currently reported in the US Environmental Protection Agency's Greenhouse Gas Inventory. They also release other harmful pollutants like benzene. Flaring is an environmental justice (EJ) issue because it especially affects low-income communities and communities of color

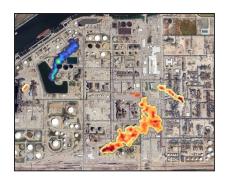


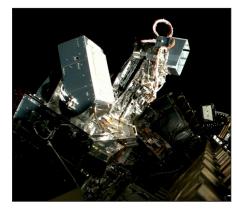
who are statistically more likely to live near these fossil fuel facilities. RMI's EJ Flaring Risk Map highlights the impacts of flaring on local communities, helping decision makers better protect public health and the environment, especially for vulnerable populations.

Carbon Mapper Takes Flight

Methane is invisible no more with the help of state-of-the-art imaging technology. Carbon Mapper Coalition's first methane- and CO₂-sensing satellite, Tanager-1, built by Planet Labs with state-of-the-art technology from NASA JPL, was made possible by a firstof-its-kind philanthropically funded public-private partnership that RMI is proud to be a member of and High Tide Foundation is pleased to support. In August, Carbon Mapper's Tanager-1 ioined the Environmental Defense Fund's MethaneSAT as one of the first nonprofit-helmed satellites in orbit. Its mission: find methane leaks and help those on the ground put a stop to them. This unique view into methane's distribution worldwide gives hope to RMI energy expert Debbie Gordon. "I believe that we can manage what we measure," Gordon, who attended the satellite's launch at Vandenberg Space Force Base, CA, says. "The years ahead promise to be the most impactful in a generation, informed by satellite measurements. Making invisible climate pollutant emissions visible is the game changer."







Methane-sensing technology was launched into orbit August 2024. The payload before launch is shown top left, deployment, above, and a methane plume shown using Carbon Mapper's interface, at left.



Explore estimates of the financial and climate benefits of green home technologies in RMI's Green Upgrade Calculator at greenup.rmi.org.

Greener Buildings for a Warming World

RMI is ensuring that new and existing homes are more comfortable, safer, and don't exacerbate the climate problem.

et another scorching summer in 2024 — one of the hottest on record — underscored two urgent priorities for the buildings sector. First, the world must take bold steps to slash planetwarming pollution from buildings, one of the largest sources of global emissions — and one anticipated to grow as the climate changes. And second, many existing buildings urgently need upgrades to keep occupants safe and comfortable during extreme temperature events.

Recent US policy is poised to drive unprecedented progress on both fronts, and RMI is providing muchneeded tools to accelerate the process. The Inflation Reduction Act unleashed billions of dollars in support of green home technologies such as solar panels, induction cooktops, and electric heat pumps. But contractors and home energy professionals are sometimes unable to convey the full cost and climate benefits of these technologies to their customers.

Continued on page 40

Personal Stories

"I Feel We Got Good Information to Act On"

Dakota Korth and his wife are first time homeowners in Ann Arbor, Michigan, and wanted to make their 1940s bungalow more efficient. Korth, a trade commissioner at Global Affairs Canada focusing on cleantech, was interested in heat pumps and weatherization, but says, "It's hard for the layperson to assess what makes sense in your exact situation." So the Korths signed up for the city's Home Energy Advisor program called A2ZERO.

The City of Ann Arbor was one of 12 teams that participated in RMI's Electrify Cohort, a program to help local governments develop and launch programs to help their community members electrify their homes. Ann Arbor's office of sustainability and innovations had been trying to develop an energy advisor program when the RMI cohort came up. After the cohort, the City launched A2Zero to provide energy assessments on homes and provide homeowners with a path to electrify their homes and get to zero carbon emissions.

Korth found A2ZERO extremely helpful. "Having an expert come through and spend a half day in the house, listen to our concerns, and give us his advice was really useful," he says. The energy advisor told the



The Korths in front of their Ann Arbor home. Photo courtesy of Dakota Korth

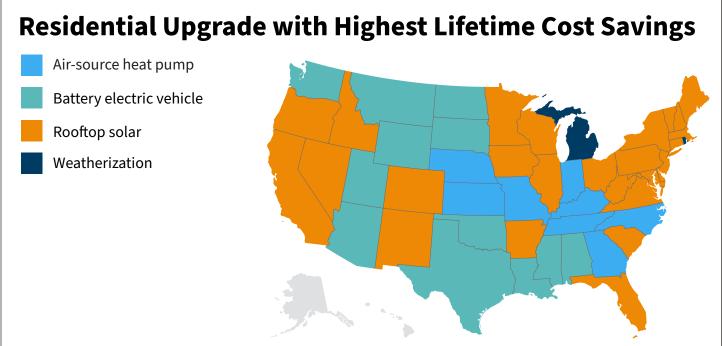
Korths they were good candidates for an air source heat pump, so the couple is hoping to switch out their gas furnace when it needs to be replaced or repaired. "I feel like we got good information to act on and some additional clarity," Korth says of the Energy Advisor program. "It was an incredibly positive experience."



Installing a heat pump.

Electrifying Communities Across the United States

RMI's Electrify Cohort helped 12 teams from across the country representing 20 local governments and their 30 partner organizations develop and launch programs to help their community members electrify their homes, focusing on heat pumps. Beginning in 2022, these teams from the Pacific Northwest, the Midwest, the Rocky Mountains, and the East Coast attended monthly workshops where they learned best practices from existing programs and each other in order to launch successful electrify campaigns. These campaigns have so far helped hundreds of homeowners, including low-income families, make their homes more comfortable and efficient.



Note: The Green Upgrade Calculator Version 1.2 home simulations for this analysis correspond to state EIA Residential Energy Consumption Survey 2020 housing characteristics microdata. The analysis timeframe is 20 years for the weatherization and rooftop solar, 15 for an air-source heat pump, and 10 for a battery electric vehicle.

Continued from page 38

Calculating financial and climate benefits of a green home

That's why RMI launched the Green Upgrade Calculator in April 2024. The user-friendly calculator, developed in collaboration with seven partner organizations, provides a detailed estimate of the financial and climate benefits of green home technologies. The results are tailored to the specific attributes of a particular home and automatically incorporate critical factors such as local utility rates.

The calculator can be used to prioritize the most impactful upgrades for a specific home or a whole category of homes (see map above). "We're eager to use this tool to assess and convey the cost and carbon benefits of the home upgrades our clients are interested in," says Jamey Stephens, the general manager of a home energy contracting company in the Pacific Northwest.

Reducing the carbon in home materials

As we work to reduce the impact of existing buildings, RMI is also teaming up with industry partners to slash emissions from the construction of new homes. RMI research shows that the climate pollution from the production of building materials for new homes in the United States is on par with the emissions from entire countries such as Denmark and Ireland.

Impact of the Acceleration Fund



The emissions "embodied" in building materials have long flown under the radar, but RMI and other forward-looking organizations and industry players are steadily changing the conversation. To turn that conversation into action, RMI launched a new program in April 2024 that empowers industry professionals to tackle embodied emissions head-on. Homebuilders CAN is a community of practice where homebuilders can access and share resources and expertise around low-carbon construction.

Hundreds of builders have already joined HomebuildersCAN, and the program has published case studies of new construction projects leveraging loweremissions materials and approaches. "Builders are finding an awful lot of low-hanging fruit at low to no cost," RMI's Chris Magwood told *Pro Builder* magazine. "We've had members already reduce the carbon imprint of the houses they're building by 25–30 percent."

Clean heating and cooling

On the global stage, RMI continues to shape and support high-profile initiatives to ensure that the buildings sector is a pacesetter in the clean energy race. At COP28 in Dubai, global climate leaders launched the Buildings Breakthrough and the Global Cooling Pledge, two international collaborations with goals backed by RMI expertise.

The Buildings Breakthrough initiative aims to make nearly emissions-free, climate-resilient buildings the norm by 2030. One of its first supporting initiatives is the Clean Heat Forum, which RMI launched in 2021 in partnership with the UK and other governments to advance clean heating technologies around the world. The widespread adoption of clean and efficient solutions for heating and cooling buildings will be essential to keep us all safe, comfortable, and productive, without contributing to further warming. With our work in support of the Clean Heat Forum and the Global Cooling Prize (see page 12), RMI is tackling both sides of the problem. ∧



Federal Resources Listed on Incentive Stacking Homepage

- Federal Tax Guidance on Stacking IRA Rebates and Tax Credits
- Weatherization Program Notice (WPN) 22-9
- IRS Tax Credit Fact Sheet
- Home Energy Rebate Instructions
- Weatherization Program Notice: Integrating the Weatherization Assistance Program (WAP) with Home Electrification and Appliance Rebates (HEAR)
- DOE's Categorical Eligibility for Stacking Guidance

Stacking Resources for Clean Buildings

There is now an unprecedented amount of federal, state, and utility funding available to decarbonize homes, offices, and countless other buildings in the United States. However, figuring out all the opportunities can be complex and confusing. That is why we published "Incentive Stacking Resources for Clean Buildings," a clearinghouse

of available resources to help state agencies, program administrators, and communities combine federal programs and incentives for building electrification and decarbonization. By "stacking" these incentives, households will pay less for home upgrades, allowing more families to be able to take advantage of the funding opportunities.

From our donors

Lodha's partnership with RMI India is setting a global standard for sustainable urbanization. At the Net Zero Urban Accelerator, we're deploying cutting-edge low-carbon technologies across the built environment, from materials to efficiency to clean energy and mobility. By tackling cost and confidence barriers, we're creating market-driven solutions that prove growth can be decoupled from emissions — starting with Palava City, a model for the world."

— Aun Abdullah, Head-ESG, Lodha

Hydrogen

A Low-Carbon **Solution for Heavy Industry**

Clean hydrogen is poised to slash emissions from steel, chemicals, and other essential industries.

t RMI, we believe that renewable energy paired with efficiency is the right recipe to bring global emissions to zero. But what about those industries and areas where renewables can't pick up the slack, or efficiency isn't enough? That's where hydrogen

In sectors such as steel, fertilizer, and marine shipping, clean hydrogen — produced via renewables-powered electrolysis, otherwise known as green hydrogen — promises to dramatically lower emissions by replacing natural gas, coal, and other fossil fuels.

But getting this industry off the ground won't happen overnight. That's why RMI is working to scale clean hydrogen production quickly and equitably.

In the United States, the future of hydrogen will depend on the creation and success of a network of hydrogen hubs.

What is a hydrogen hub?

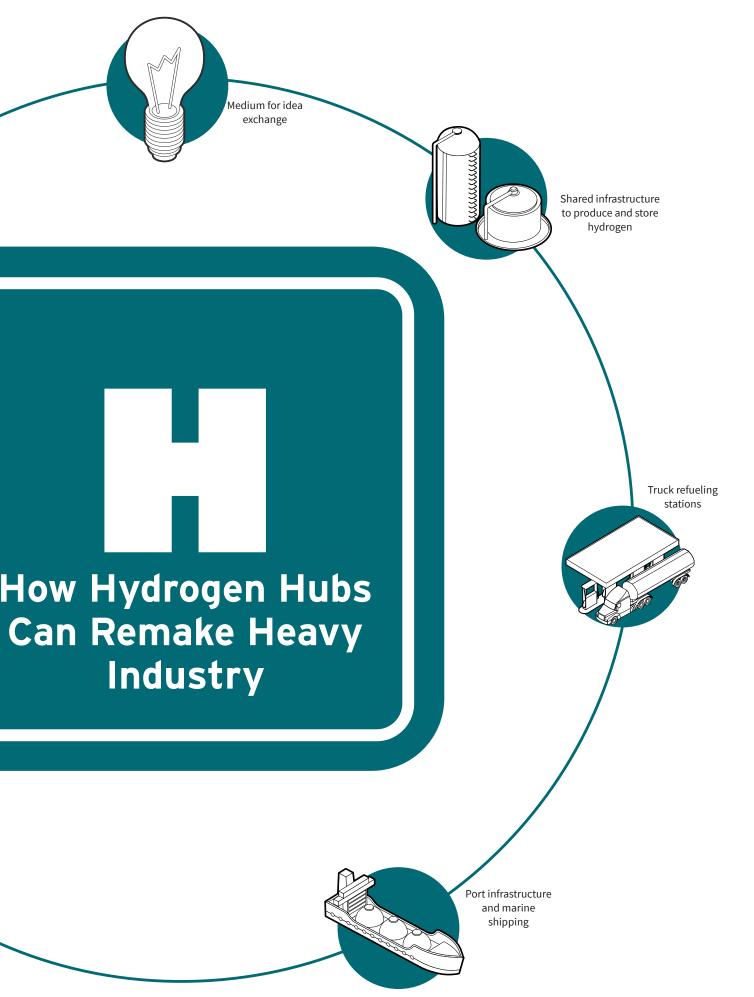
Hydrogen hubs are organized networks where facilities involved in producing and using clean hydrogen work together efficiently. These hubs aim to speed up the production and use of clean hydrogen by taking advantage of the economies of scale generated by clustering related industries.

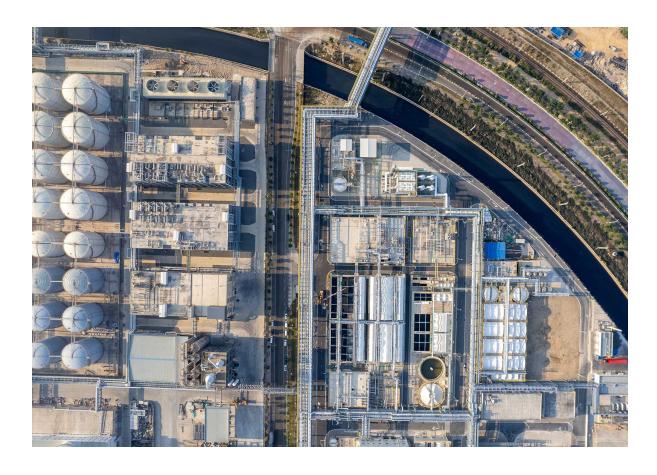
These hubs are more than a web of interlinked physical infrastructure. connecting hydrogen suppliers to users. They are also a platform of information that will align common technical requirements, create resource exchanges, optimize efficiencies, and leverage competitive advantages to accelerate the growth of clean hydrogen.

Renewable electricity generation Continued on page 44 RMI | Energy. Transformed.



42





Proposed Impact of California ARCHES Hydrogen Hub

 Challenge	What Hydrogen Hub proposes	Potential impact
Diesel cargo-handling equipment at ports	Replace diesel equipment with others using clean hydrogen fuel cells	Improved air quality for surrounding communities
Lack of hydrogen infrastructure	Install heavy-duty, clean hydrogen fueling stations	Power 5,000+ trucks and 1,000+ buses with clean hydrogen
Hard-to-decarbonize industries	Produce 100% of clean hydrogen with renewables and biomass	Reduced CO ₂ emissions

Source: Office of Clean Energy Demonstrations

Continued from page 42

Clean hydrogen takes root

In late 2023, the US government announced that seven US-based hubs would receive a share of \$7 billion in federal funding — while catalyzing a further \$40 billion in private investment. This investment set the stage to cut CO_2 emissions by 25 million metric tons annually. RMI actively advised four of the regional hubs on their applications, three of which were selected as finalists. Now that the program is moving forward, RMI continues to engage with all seven hydrogen hubs through the Hydrogen Demand Initiative, a collaborative effort to scale demand.

Consider California, one of the sites advised by RMI. In the Golden State, the proposed Alliance for Renewable Clean Hydrogen Energy Systems (ARCHES) hub offers a glimpse into clean hydrogen's future.

The public-private partnership aims to target many of California's top emissions sources, including public transportation, heavy-duty trucking, and port operations by tapping into California's fast-growing renewables capacity to produce clean hydrogen.

Integrating new and existing facilities across the state, the ARCHES hub aims to reduce carbon emissions by 2 million metric tons per year — roughly equivalent to the annual emissions of 445,000 gasoline-powered cars. It will



also provide cleaner air by transitioning to emissions-free vehicles. The hub promises to create as many as 220,000 jobs: 130,000 in construction and 90,000 permanent roles.

Centering communities

As these numbers suggest, hydrogen hubs are huge undertakings — with the potential to both lift a region's economy, as well as disrupt existing communities. Balancing these priorities for community benefit is central to RMI's approach.

Hydrogen hubs will not succeed if they do not have enthusiastic buy-in from nearby communities. Concerns over economic inclusion, health, safety, and water usage are just some of the sensitivities these projects face. RMI's report, Delivering Equitable and Meaningful Community Benefits via Clean Hydrogen Hubs, underlines the importance of Community Benefit Plans to help address these concerns and successfully develop hydrogen hubs.

RMI's assessment also details the steps that project developers need to take to listen to and engage with community concerns prior to the launch of hydrogen hubs. The report also highlights helpful tools, such as RMI's Stakeholder Analysis and Mapping (SAM). SAM simplifies the process of creating insightful visualizations of stakeholder relationships and power dynamics for projects in all sectors, communities, and regions.

The economics of hydrogen

Hydrogen has the potential to dramatically reduce carbon pollution in key industries. In the shipping sector, there is increasing consensus that green hydrogen-based fuels — particularly green methanol and green ammonia — offer a low-emissions alternative to bunker fuel, the heavy oil used today to power ships. In an April 2024

report published by RMI and the Global Maritime Forum under the umbrella of the Zero-Emission Shipping Mission, we mapped out the future of green methanol and green ammonia flows as far as 2030.

But shipping's potential to decarbonize doesn't just stop at fuel. Connecting geographies via ocean routes can also help jumpstart sustainable steel production. In April 2024, RMI introduced the idea of "Green Iron Corridors," a novel approach to one of steel's decarbonization roadblocks: sourcing cleanly produced iron. The solution: partnering with regions that are rich in both iron ore and renewables to rapidly decarbonize a key step in the steelmaking process. Attacking a problem from a systems level to find a solution: RMI's thinking in a nutshell.

From our donors



RIST is proud to partner with RMI to advance the development of green

hydrogen in India. We are confident in RMI's ability to help shape India's clean energy transition and are excited to achieve a sustainable future together."

— Paul Glick, Executive Director, Rural India Supporting Trust (RIST)

Board of Trustees

Sumant Sinha

Board Chair; Chair, Executive Committee

Founder, Chairman, and CEO, ReNew

Martha C. Pickett Board Co-Chair

Managing Director and General Counsel, RMI

Anjali Bansal

Founding partner of Avaana Climate and Sustainability Fund

Martha Brooks Chair, Development

Global Director

Jon Creyts

Chief Executive Officer, RMI

Catherine Coleman Flowers

Founder of the Center for Rural Enterprise and Environmental Justice

Bryan Hannegan Chair, People Committee

CEO, Holy Cross Energy

Ma Jun

Founding Director, Institute of Public & Environmental Affairs

Amory B. Lovins

Cofounder and Chairman Emeritus, RMI

Dennis McGinn Chair, Governance & Nominations Committee

Strategic Advisor

Enki Tan

Executive Chairman, Giti Tire Pte. Ltd

Jessica Uhl Chair, Finance Audit Investment Committee

President of GE Vernova Vice-Chair, Mission Possible Partnership Strategic Advisor, Breakthrough Energy

Dr. Kandeh Kolleh Yumkella

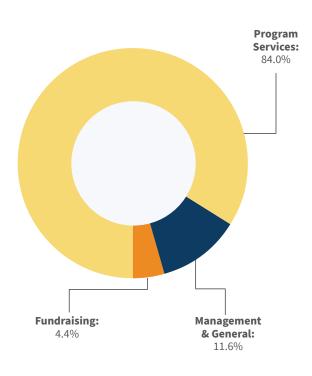
Founder and Chief Executive Officer, The Energy Nexus Network

Audrey Zibelman Chair, Strategy

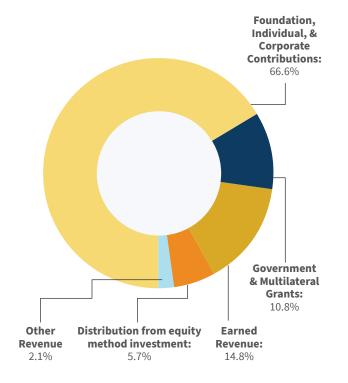
Energy Industry Executive

RMI Consolidated Financials

Expenses



Revenue & Support



Expenses (In thousands of dollars)			
Program Services	\$133,281	84.0%	
Management & General	\$18,432	11.6%	
Fundraising	\$7,023	4.4%	
Total Expenses	\$158,736		

Revenue (In thousands of dollars)				
Foundation, Individual, & Corporate Contributions	\$113,221	66.6%		
Government & Multilateral Grants	\$18,404	10.8%		
Earned Revenue	\$25,227	14.8%		
Distribution from Equity Method Investment	\$9,769	5.7%		
Other Revenue	\$3,553	2.1%		
Total Revenue	\$170,174			

Statement of Financial Position

Assets

Totals in the thousands	6/30/2024	6/30/2023
Cash & Cash Equivalents	\$29,822	\$19,049
Investments	\$41,078	\$39,989
Accounts Receivable	\$12,041	\$13,455
Pledges Receivable Short-term	\$19,470	\$16,195
Prepaid Expenses and Other Assets	\$4,614	\$3,958
Intangible Assets	\$26	\$36
Notes Receivable	\$2,123	\$4,204
Pledges Receivable Long-term	\$6,515	\$4,012
Property and Equipment, Net	\$14,209	\$14,457
Right of Use Assets - Operating Leases	\$19,178	\$21,397
Investments Restricted for the Innovation Center	\$633	\$594
Beneficial Interest in Assets Held by The Denver Foundation	\$529	\$495
Deposits and Other Assets	\$632	\$632
Total Assets	\$150,870	\$138,473

Liabilities and Net Assets

Totals in the thousands	6/30/2024	6/30/2023
Accounts Payable	\$4,519	\$3,210
Accrued Salaries and Benefits	\$11,020	\$9,898
Deferred Revenue	\$3,243	\$3,092
Other Current Liabilities	\$1,243	\$750
Notes Payable	\$6,260	\$6,368
Operating Lease Liabilities	\$19,650	\$21,658
Total Liabilities	\$45,935	\$44,976
Net Assets	\$104,935	\$93,497
Total Liabilities & Net Assets	\$150,870	\$138,473

Statement of Activities

Revenue and Support

Totals in the thousands	6/30/2024	% of Total Revenue	6/30/2023	% of Total Revenue
Earned Revenue	\$25,183	14.8%	\$20,294	14.4%
Foundation, Individual, & Corporate Contributions	\$113,221	66.6%	\$102,719	72.6%
Event Revenue	\$44	0.0%	\$27	0.0%
Government & Multilateral Grants	\$18,404	10.8%	\$9,022	6.4%
Other Revenue	\$147	0.1%	\$235	0.2%
Change in Beneficial Interest in Assets Held by The Denver Foundation	\$54	0.0%	\$20	0.0%
Interest and Dividends	\$1,522	0.9%	\$734	0.5%
Net Realized and Unrealized Loss on Investments	\$1,830	1.1%	\$512	0.4%
Distribution from Equity Method Investment	\$9,769	5.7%	\$7,835	5.5%
Total Revenues, Gains, and Other Support	\$170,174	100%	\$141,398	100%

Expenses

Totals in the thousands	6/30/2024	% of Total Expenses	6/30/2023	% of Total Expenses
Program Services	\$133,281	84.0%	\$120,033	83.2%
Management & General	\$18,432	11.6%	\$17,882	12.4%
Fundraising	\$7,023	4.4%	\$6,406	4.4%
Total Expenses	\$158,736	100%	\$144,321	100%
Change in Net Assets	\$11,438		(\$2,923)	

Dutch Postcode
Lottery Awards

his year, the Dutch Postcode Lottery awarded RMI a total of €1.4 million (US\$1.49 million). These funds supported several projects focused on advancing resilient electricity and transportation systems in Africa, China, India, Islands, and Southeast Asia. This work included: our Sharing the Power project focused on scaling low-cost, community-based solutions to distributed renewable energy in Africa; Shoonya, a corporate- and consumer-facing campaign co-hosted with NITI Aayog to accelerate electric vehicle deployment and eliminate pollution from urban delivery and ridehailing vehicles in India, with plans to expand to other countries; strategies to expand zero-carbon heating in southern China; and our Catalytic Climate Capital initiative, which accelerates financing for clean energy projects across the Global South.

Since 1989, the Dutch Postcode Lottery has been raising funds to support Dutch and global organizations working for a healthier, fairer, and greener world. At least 40 percent of its income goes to charity. By participating in the lottery, Dutch citizens are helping to make a real difference in our global climate future. In 2023, The Lottery and its participants raised €349 million for 176 charities around the world. ▲



Be Part of the Solution.



As an independent nonprofit, RMI is powered by generous donors. Our Solutions Council is a growing community of dedicated philanthropists, industry experts, policy leaders, and community advocates who accelerate climate solutions that will secure a clean energy future for all.

The Council's collective generosity provides the critical, flexible foundation we need to pursue emerging solutions, recruit and retain expert staff, and provide our team with the security, tools, and resources to operate globally.

WITH A GIFT OF \$125/MONTH, YOU CAN BE PART OF THE SOLUTION.

To learn more, contact Margaret Salamon at msalamon@rmi.org



Thank you,

We appreciate your enduring confidence and support of RMI. In addition to the names in the following pages, we are also grateful for our many donors who wish to remain anonymous.

s an independent nonprofit, RMI's work to create a clean energy future for all is powered by generous donors like you. This past year, many of you — including our Council members listed at right — chose to support our Acceleration Fund, a flexible source that helps us rapidly scale proven work and refine cutting-edge projects that can offer a big return on philanthropic investment.

In 2024, the Acceleration Fund supported global, wide-ranging initiatives across all major sectors, but with one common denominator: climate impact. In many cases, it allowed us to jumpstart innovative solutions that otherwise would not have been possible. This funding delivered time-sensitive support for applicants to the EPA's Greenhouse Gas Reduction Fund, a \$27 billion program to expand clean energy in low-income communities. It helped provide a comprehensive battery storage adoption solution for Barbados to realize its goal of 100 percent renewable energy by 2030. It accelerated policy development and financing toward 50 percent adoption of electric two- and three-wheelers in Indonesia and Nigeria by 2027. And it funded the Clean Growth Tool, an online data platform to help US states and cities identify clean energy industry opportunities and associated workforce needs.

These projects are just a small sample of the impact that's been possible because of you.

With your support, we will continue to work tirelessly to develop and scale clean energy solutions that decrease pollution, create jobs, and improve lives around the world. Our planet, and our future, demands no less.

With gratitude,



Jennifer Stokes Chief Development Officer



Martha Brooks
Development Chair,
Board of Trustees, and
Member, Acceleration
Fund Council

donors

Acceleration Fund Council

- Charlie Babbs, Researcher, Purdue University
- Martha Brooks, RMI Trustee and Development Chair
- Mary Caulkins, Board Member of SWEEP, Southwest Energy Efficiency Project
- Jason Haggins, Executive Director, Sall Family Foundation
- Fred Iseman, Founder, CI Capital Partners
- Karl Kister, Board Member of SWEEP, Southwest Energy Efficiency Project
- Amory Lovins, RMI co-founder and Trustee
- Seshu and Nag Rao, The Rao Foundation
- Chris Stix, Clean Energy Advocate

An Organization You Can Trust

RMI is consistently recognized as a Charity Navigator 4-Star charity (the highest rating possible given to nonprofits for fiscal responsibility and transparency) and rated as a Platinum Transparency Candid organization.





The Legacy Society

Our Legacy Society is a community of dedicated supporters who have included RMI in their estate plans. Their support helps ensure RMI will have the resources needed to continue to address the global climate crisis in the years ahead.

The Innovators Circle^{IC}

The Innovators Circle is an engaged group of partners who fuel RMI's work through philanthropic support and clean energy leadership. Innovators gain unprecedented access to the ideas, experts, and projects that are shaping markets.

The Solutions Council^{sc}

The Solutions Council is a growing community of philanthropists, industry experts, policy leaders, and community advocates who are accelerating solutions that will secure a clean, prosperous, zero-carbon future through an annual gift of \$1,500 or more.

HEROES \$1,000,000 and above

Bloomberg Philanthropies Blue Horizons **Breakthrough Energy Foundation**

Adage Capital Management

CBRE Group

Children's Investment Fund Foundation

Climate Imperative

Climate TRACE (via WattTime)

ClimateWorks Foundation

Dutch Postcode Lottery

Federal Express Corporation

General Motors

Global Energy Alliance for People & Planet

Global Methane Hub

Jeremy and Hannelore Grantham

Environmental Trust and the Grantham

Foundation for the Protection of the

Environment

High Tide Foundation

The Lemelson Foundation

Adam & Melony Lewis^{IC}

Lyda Hill Philanthropies

Oak Foundation

Quadrature Climate Foundation

Ripple Impact Fund

Rural India Supporting Trust

Sall Family Foundation

SLB

Fred & Alice Stanback^{IC}

U.S. Energy Foundation

Wells Fargo

The William and Flora Hewlett Foundation

Anonymous (5)

GAME CHANGERS \$500,000-\$999,999

Angela Wright Bennett Foundation The Arthur M. Blank Family Foundation **Barclays**

Berkshire Hathaway Energy

Cisco Foundation

The Cynthia and George Mitchell

Foundation

European Climate Foundation

The Heinz Endowments

Jeff Hoel^{IC}

The John D. & Catherine T.

MacArthur Foundation

JPMorganChase

Meta Platforms

The Rao Foundation

Rockefeller Brothers Fund

The Rockefeller Foundation

Shell PLC

Sustainable Cities Fund

Three Cairns Group

MARKET MOVERS \$100,000-\$499,999

The 11th Hour Project of The Schmidt Family Foundation

The African Climate Foundation

Amazon

Arnold Ventures

AT&T

Dr. Charles Babbs^{IC}

Banco Bilbao Vizcaya Argentaria

Bank of America

BHP

Blue Haven Initiative

BuildUS

Chan Zuckerberg Initiative

CIBC

Citi

Climate Finance Fund

Conscience Bay Research

Crankstart

Deloitte

Delta Environmental & Educational

Foundation

The Educational Foundation of America

Eldred Foundation

Energy Foundation China

Environmental Defense Fund

The Goldman Sachs Group, Inc.

Arjun Gupta^{IC}

Heising-Simons Foundation

Horizon Climate Initiative

ING Bank

Islands Fund for Climate and Justice

Jane & Bill Knapp^{ic} Chris Kohlhardt^{IC} The La Fetra Foundation Landers Family Fundic Leon Lowenstein Foundation McKnight Foundation The Mental Wellness Foundation, Inc. Meyer Family Fund^{IC} **Microsoft Corporation** The Moses Feldman Family Foundation National Forest Foundation Netflix The New York Community Trust **Open Society Foundations** Royal Bank of Canada Scaled Agile Scotiabank SFD Fund Bradford G. Stanback & Shelli Lodge-Stanback Standard Chartered Bank Stardust Fund, in honor of Catherine Flowers Stolte Family Foundation TD Bank George B. Storer Foundation Toyota U.S. Bank Virgin Unite Jack & Susy Wadsworth^{IC}

The Walt Disney Company

The Wellcome Trust

Wy'east Foundation

Anonymous (10)

DISRUPTERS \$50,000-\$99,999

128 Collective

Akamai Technologies David & Patricia Atkinson^{ic} Barr Foundation **BNP Paribas Group** Kenneth & Cheryl L. Branson^{ic} José Rossi Coughlin & Maria Garcia^{IC} **Evergreen Action** Joseph and Marie Field Family **Environmental Foundation** The Hartfield Foundation The Henry Luce Foundation Orion Hindawi & Jackie Pohlic Jeff & Karen Shishino Jordanic George Krumme^{IC} The Leighty Foundation Lennox Foundation Lincoln Street Fund Patrick & Patti O'Donnellic **ProLogis** Salesforce Siemens Energy The Summit Foundation Laney & Pasha Dritt Thorntonic Transit Center Foundation Walmart, Inc. Wiancko Charitable Foundation Wendy Zimmermann & Steve Cutler^{IC} **ZOMA Foundation** Anonymous (3)

ENERGIZERS \$25,000-\$49,999

Alaska Airlines Rachel Albright^{IC} Fritz & Lani Angle^{IC} James Aresty & Sallie Golden^{ic} Jessica Case^{IC} Mary Caulkins & Karl Kister^{IC} Christenson Family Foundation Anne Churchill Jones Fund Dallas and Louise Anderson Foundation The Equitable Transportation Fund a project of Global Philanthropy Partnership Eric Anderson Foundation Wes Ernsberger^{IC} The Excelsior Impact Fund, in memory of Don Stayner Zachary C. Farber^{IC} Finn Brooks Family Foundation Inc. IC Joel & Meredith Gantcheric Darcy Hitchcock & Dale Graham^{IC} William D. Green^{IC} John & Kathryn Greenbergic GSSG Solar, LLC Lindsay & Kirk Hardie^{IC} Hunter & Stephanie Hunt^{IC} Lakeside Foundation Marianne Mitosinka & George Wick^{IC} Jessica Uhl & Michael Payne^{IC} Caroline Quanbeck^{IC} The Roy A Hunt Foundation Sally Mead Hands Foundation Michael Sonnenfeldt^{ic} Ron Strom & Cathy Pascal^{IC}

Adam & Cheryl Sweeney^{ic} Richard D. Waterfield Environmental Fund

Anonymous (3)

PIONEERS

\$10,000-\$24,999

Jeffrey Abramson^{sc}
Samuel & Sarah Adams^{sc}
Alexander Algard^{sc}
Rick Powell & Rita Ayyangar^{sc}
James & Mary Bettcher^{sc}
Diane Boss^{sc}

Peter Boyer & Terry Gamble Boyer, in honor of Marty Pickett^{sc}

The Buchanan Family Foundation, Inc. sc

Pat & Greg Calhoun^{sc}

Jody, Curtis, & Ellie Chang^{SC}

John C. Clifford & Katrina Lake^{sc}

Jon & Alicia Creyts^{sc}

Andrew Darrellsc

Paul Desjardins^{SC} Gordon Eatman^{SC}

The EMWIGA Foundation

Suzanne Farver & Clint P. Van Zee^{sc}

Mr. & Mrs. Thomas L. Friedman^{sc}

David & Melinda Gladstone^{sc}

Goldman Sachs Cybergrants

Matching Gifts

Ann Grant^{SC}

The Grinspoon-Foley Charitable Foundation Fund at The Chicago Community

Foundationsc

Sarah Hancock^{SC}

Jon & Gretchen Jones^{sc}

Richard Kipper^{SC}

Jules Kortenhorst & Searl Vetter^{sc}

Alexander C. & Lynn Manley Lindsey^{SC}

Lipman Family Foundation^{sc}

Joel & Jean McCormacks

Rosie & Patrick McVay^{sc}

Robert G. Merrillsc

James & Isobel Mills, in memory

of Jimmy Mills & Helen Hopkins Mills^{sc}

James Mitchellsc

MRB Foundation

Scott & Barbara Nelson^{sc}

Pacific Restoration Fund,

a fund of Tides Foundation

Martha Records & Richard Rainaldi^{SC}

Carlyle H. Wash & Leslie K. Rosenfeldsc

Jim Dennis Seyfert^{sc}

Joan Semmer^{SC}

Jonathan & Xixi Shakes^{SC}

Frank & Kathy Sinton^{sc}

Debbie & Bob Slotpole^{SC}

Robert Soltess^{SC}

John & Rita Sudman^{sc}

Jeff Tannenbaum & Nisa Geller^{sc}

Laura Tiberti^{sc}

Ted & Nancy White^{sc}

Robert & Kathy Wiesemann^{sc}

Jurgen Willissc

Anonymous, in memory

of Frank & Beverly Smoczynski

Anonymous (7)

OPTIMIZERS \$5,000-\$9,999

Brynn Arborico^{SC}

Tomakin & Julia Archambault^{sc}

Guneet Bangasc

Samuel Dennis Bell & Judith Nevinssc

Larry & Kathryn Berkbigler^{sc}

Glenn Bucksbaum, in honor

of Clean Energy^{SC}

John & Jacolyn Bucksbaum^{sc}

Iain & Georgina Campbellsc

Robin & Dan Catlin^{sc}

Laura Chevalier^{sc}

Common Needs Fund

Dr. Loring & Mrs. Louise Conant^{SC}

Beverly Craig^{SC}

Jeff Crystal & Katharine Workum^{sc}

Peter Davidson^{sc}

Durfee Day^{sc}

Steven & Roberta Denning^{SC}

John Domingos & Claudine Markensc

The Donahue Fox Family Fundsc

Carolyn Dorflinger^{SC}

Baird Edmonds^{SC}

Amy Claire Edmondson & George Q. Daley^{sc}

Andrew Fieldsc

Greg & Jane Fletcher^{SC}

Merrietta Fong & James Krause^{sc}

Karen Marie Fredrickson^{sc}

Robert Frier^s

Gretchen R. Ganfieldsc

Glenn A. Lyons & Nancy Gerdt^{sc}

Paul W. Gerke^{SC}

David & Susan Giffensc

Lorraine Goldin & Jonathan Marshallsc

Google Gift Matching Program

Marianna Grossmanso

Margie & John Haley^{sc}

Philip Heinrich & Sally Juram^{sc}

William & Susan Hewitt^{sc}

Don & Jennifer Holzworthsc

Jack & Robin Homersc

Jockey Hollow Foundationsc

Suzanne Johnson^{sc}

David Jones Jr. & Mary Gwen Wheeler, in

honor of Ted White's board leadership^{sc}

Matt & Kimberly Kaplanso

Randall Kempner^{sc}

Beth Kirkhart & Victor Yodaikensc

Sue & Chris Klem^{sc}

Amory & Judy Hill Lovins^{sc}

Siri & Bob Marshallsc

David Mendels & Dr. Leila Yassa^{sc}

Willem & Lisa Mesdag^{SC}

Marge Wurgel & Keith Mesecher^{sc}

Microsoft Matching Gifts Program/

Giving Campaign

Phillip Mulligan & Susan Holdrege Morsesc

Chanel ONeillsc

Theodor B. Owens^{SC}

Pando Alliance

Paul M. Anderson Foundation

Jaye Pearson^{sc}

Martha Pickett & Edgell Pyles^{sc}

Barbara Piette^{sc}

Rudy & Alice Ramsey Family Foundation^{sc}

Sara Ransford, Arches Foundation^{sc}

Inga Robbins & John Reynolds^{SC}

Leonard Roark^{sc}

Leroy & Marianne Roccasc

Barbara & Gregory Rosston^{sc}

Biz & Yaz Roussev^{SC}

Paul D. & Joanna Rudnick^{sc}

Meryl & Robert Seligsc

John & Jeannie Seybold^{sc}

Charles Sieloffsc

Anne Silver^{SC}

Don & Faye Slater^{sc}

Todd Stern & Jennifer Kleinsc

Eric & Cynthia Strid^{sc}

Rom & Pamela Welborn^{sc}

David D. & Melody Wilder Wilson^{sc}

Robert & Victoria Wolfson^{sc}

Anonymous (3)

INTEGRATORS \$1,500-\$4,999

Madhav Acharya & Minakshi Krishnan^{sc}

Deanne Adams & Tony Sistosc

John & Marcia Addisonsc

Peter & Zoe Adlersc

Betsy After^{SC}

Adam Altenhofen^{sc}

Mark Trustin & Marcia Angle^{sc}
Apple Gifts Matching Program

Brian Arbogast & Valerie Tarico^{sc}

Renee Azerbegi & Howard Walkersc

Steve, Lisa & Matt Ayres^{sc}

Benjamin & Alyssa Bain^{sc}

David Balaban^{sc} Wahhab & Katherine Baldwin^{sc}

Tom & Johanna Baruch^{sc}

Chris & Katherine Berg^{SC}

Carol & Robert W. Bertrandsc

Richard Bruce Billings^{SC}
David Frankl & Mary Blenkush^{SC}
Robert Karasov & Hanna Bloomfield^{SC}
Margaret & Todd Bogumil^{SC}
Judd Williams & Anne Bonaparte,
in honor of Darius^{SC}
James A. Boorstein^{SC}
Kathy & Bjorn Borgen^{SC}
Chapin Boyer^{SC}
Putt & Appin Bridges^{SC}

Rutt & Annie Bridges^{sc} William Horne & Lea Brilmayer^{sc} Andrew & Audrey Brook^{sc}

Molly Matheson Brooks^{SC}
John Rowland & Sarah Brough

John Rowland & Sarah Broughton^{sc} Helen & Morgan Brown^{sc}

Kay Bucksbaum^{sc} Luke Wilson & Maithu Bui^{sc}

Luke Wilson & Maithu Bui^s The Bullitt Foundation

Will Butchersc

Donald L. & Deborah Butler^{sc}

Linda D. Campbell^{sc} Barbara Carter^{sc} John & Nancy Cassidy^{sc}

Lynn Chard^{sc}
Helena Chum^{sc}

Russell Clarke & Julie Steeler^{SC} Peter Clitherow & Arvia Morris^{SC}

Tom & Cathy Crum^{SC} Flaine Cull^{SC}

Paul Curran^{sc}

Marilyn & John A. Danielsc

Martha H. Davis^{SC} Philip Davis^{SC}

Dell Direct Giving Campaign

Stephen D. Dent^{sc} Jesse Devitte^{sc} Gregory Doane^{sc}

Peter Laundy & Shirley Dugdale Laundy^{sc}

Dan & Rae Emmett^{sc} Theresa Estrada^{sc}

Jan V. Eyer & Gregg A. Reese^{sc}

The Fackert Family^{sc}
The Fair Share Fund^{sc}
Fanwood Foundation^{sc}
Thomas W. FitzHugh^{sc}
James R. Flanders^{sc}
Dean Flugstad^{sc}

Joseph Frantz & Laura Foster^{sc}

Ron & Janet Freund^{SC} Stephen Frizell^{SC} Octavio Fuentes^{SC} Gaia Fund^{SC}

Catharine & Daniel Garber^{sc} Marian & August Gerecke, Jr.^{sc}

Robert R. Giles^{SC}

David & Shirley Ginzberg^{SC}

Philip & Marcia Giudice^{sc}
Jacob & Alissa Glenn^{sc}
David & Samantha Gluck^{sc}
Rolf & Julie Goetze^{sc}

Sandy Gold^{sc}

Marian Goldeen & Arthur Ogawasc

Peter J. Gollon^{sc} William B. Grant^{sc}

Jennifer Grizzard Ekzarkhov^{sc} Group14 Engineering, PBC Christopher & Sherrie Hall^{sc} Ben & Nina Hallissy^{sc}

David & Mary Mead Hammond^{sc} Arno & Nadine Burke Harris^{sc}

Susan Helm^{sc} Douglas Hendren^{sc} Stephen Herb^{sc}

Brendan & Karen Herron^{sc}

Eleanor Hildreth^{sc} Aaron Hill & Laura Smith^{sc} Holdfast Collective

Reese Holser^{sc} Steven Howell^{sc} Todd & Lynn Howes^{sc}

Mary Hulbert & Anne Morehouse^{sc} Logan Hurst & Nancy Reynolds^{sc} Mark Interrante & Mary Walker^{sc}

The Jackson H. Fenner Foundation, Inc.^{sc} Charles N. Jaffee & Marvina Lepianka^{sc} Jager-Sumner Family Charitable Fund^{sc}

Betty & Daniel E. Jantzen^{sc}

Karen Jenne^{sc}

Mike & Laura Kaplan Advised Fund at Aspen Community Foundation^{sc}

Steven Keffer^{sc} Helen J. Kessler^{sc} Richard & Ruth Kidd^{sc} Jared Kilpatrick^{sc}

Michael & Deirdre Krumper^{sc} Michael & Colleen Kunkel^{sc} Stephen & Mary Kunkel^{sc}

Nancy S. & Randolph O. Laatsch^{sc}

Carola B. Leasc

Roger & Florence Liddell^{SC}

Love Earth & Children Charitable Trust^{sc}

Randall L. Mann & Sarah Luth^{sc} James & Christina MacInnes^{sc} Eric Ross & Nicole MacNeel^{sc} Dana & James Manning,

in memory of James T. Mills^{sc}

John R. Marcilsc

Robert & Margaret Marshall^{sc} Kathy & Rob Masinter^{sc} William Mathison^{sc} Philip Mazzone^{sc}

Morley McBride & Bailey McCallum^{sc}

McCalmont Engineering Olga & Frank McCoy^{sc}

John McGarry & Michelle Wernli^{sc}

Dennis & Kelly McGinn^{sc} Steven & Lauren Mevers^{sc}

Nick Michell^{sc} Janet C. Miller^{sc}

Nicole Miller & Kim Taipale^{SC}

Masataka Minoji^{sc}

Michael & Linda Moodie^{SC}

Mario & Dana Morino, in honor of Steve & Roberta Denning^{sc}

N1234 — Netflix Matching Gifts

Tom Nelson^{sc}

Kelly O'Brien & Martha Watson^{sc}

Mark R. Opperman^{sc} Debbie & Tadd Ottman^{sc} Daniel Padilla^{sc} John H. Parker^{sc}

Adam Pate & Grace Matelichsc

Dr. Peter Somssich &

Kathleen Pohlman-Somssichsc

Christine & Mark Polle^{sc} Andrew Porteous^{sc}

David Porteous & Vicky Smithsc

Kent Pressman & Susan Roudebushsc

Samuel Reid & Emily Puetz^{sc} Jerome & Dena Puskin^{sc}

Joseph & Xiaomei Li Reckford Fund of the

Triangle Community Foundation^{sc}

Wendy Ring^{sc} Kylie Rogers^{sc} Abigail Rome^{sc}

Matt Rooney & Andy Torres^{SC}

Justin Sabrsulasc

Robert J. Schloss & Emily M. Sack^{sc}

Margaret & David Salamon^{sc}

Samuel Sandeen^{sc}
Joyce & Paul Schwer^{sc}
Carl Shapiro^{sc}

James & Linda Smedinghoff^{sc}

Isaac Sonnenfeldtsc

Pamela Shillam^{SC}

Special Competitive Studies Project (SCSP)

Karen & Donald Stearns^{sc}

Keith Steele^{sc} Robert Stiratelli^{sc}

Anne M. Stoddard & Sanford Rothsc

Jennifer Stokessc

Ross & Rebecca Sullivan^{sc} Derek & Charlotte Supple^{sc}

John A. Swanson^{sc} Amy Symstad^{sc}

John & Janice Szostek^{sc}

Steve Szymanski & Carli Zug^{sc}

Techstars Foundation

Bikas Tomkoria^{sc} Vision Ridge Partners LLC Mohit Vora^{sc} Ralph Wanger^{sc} Thomas H. Warren^{sc} Dan & Terrie Watch^{sc}

Daniel H. Webb^{sc}

Richard & Shelley Weber^{sc} Jonathan & Elizabeth Weil^{sc}

Kendra Wenzel^{sc} Ruth White^{sc}

Mark & Janet Widoffsc

Windham Fund

Lynn & Joan Winter^{sc}

Maribeth Wright^{sc}

 ${\bf Mary\ Zweighaft}^{\rm sc}$

Anonymous (4)

\$500-1,499

Joan Abrahamson & Jonathan Aronson

Richard Ackerman Joel & Marla Adams

Garv & Tara Albaum

Richard Conlin & Sue Ann Allen

Tom Anderson & Nancy Conger

Jessica Andrewartha & Charles Korb

Alan Appelbaum

Robert Barrett & Linda E. Atkinson

Walter & Jill Auburn

Steven Averbuch & Rachel Rivest

Anne Marie Siu Yuan & Peter Bacchetti

Paul & Debbie Baker

The Barth Family Fund of the Oregon

Community Foundation

Martens Bash

Emily Beagle

Mrs. Ashley D. Beall & Mrs. Carmen L. Colon

David Becerra

Bob Bechtold

Andrew Beechey

William Beineke

Judith Byrns & Joe Bergquist

Roger & Karen Berliner

Jill Nelson & Thomas Bidell

Bryan Hannegan & Michelle Bienick

Karen Bireta

Jennifer Bissell

Daniel M. Blankstein

Michael Bobker

J.R. Boehrs & Katherine Palmer

Sally L. Boswell

Bruce & China Botsford

Victoria Gordon & Robert Bradley

Gary J. & Renata Brand

Ronald & Margaret Brand

Bob Van Wetter & Betsy Brew

Maria & Michael Bridge

Bill & Carol Bruml

Jeff & Jane Brune

Marc Brune & Kelly Stewart

Jessica & Chris Burgess

Grey Burnett

Ames Byrd

Dr. Patricia & Mr. Thomas Canfield

Elizabeth Cannon

Michael Cantacuzene

Peggy Carlson

Rachel A Carren & Mark D Young

Laura Carv

Prem Chandrasekaran

Barbara Chaplin, in memory

of Edward Homer Helm

John & Lou Chapman

Ian & Michaele Charnley Family Fund of

Grand Rapids Community Foundation

Thomas & Cassandra Cheyney

Douglas & Jocelyn Childs

Eric Christensen

Rip Tompkins & Fran Clark

Diana Prechter & Kent Cole

Neil Murray & Georgianna Collins

Jonathan Coopersmith & Lisa Halperin

William Corin & Lisa Flam

Denise & John Corkery

Phil Coupe

Karen Crawford

Bruce Cross

Cathy E. Crouch

Michael Krautkramer

Dandelion Fund

John C. Dernbach

Mike Derzon & Robin Supplee

Stephen Dey & Ashley Gibb

Kurt Dieringer

Dockser Family Foundation Inc.

Cindy Donohue

Sara & Tom Dougherty

Peter Gould & Nora Doyle

Scot Drysdale & Patricia Higgins

Marjorie Thompson Duck

EarthShare

Pam & Kirk Ebertz

Anne & Paul Ehrlich

Bob Lorenzen & Priscilla Elder

Lawrence Eldridge

Jeffrey P. & Suzanne Emerson

Jonathan Ratner & Pamela Erens

Linda B. Fabe

Alec Flyer

Tim Flynn

FMI Corporation

Steve Folkner

Julie Ford-Maloney,

in memory of Ken Maloney

Anna Itenberg & James Fosnaught

Michael Frank

Cynthia & Jonathan Franklin

Joshua Frieman

Steven & Stephanie Gage

Jim & Carole A. Gano

Claude & Ellen Gerstle

Carl W. Giessel

Cheri Glaser

Steven Goldberg

Ellen Spertus & Keith Golden

Goldin Family

Goodwin Foundation, LLC

Barry D. Solomon & Patricia Gotschalk

Jonathan & Dana Gottsegen

Elaine D. Gray

Jerry Greenfield & Elizabeth Skarie

Brian Greer

Elise Gregory

Cindy Jarvis & Russell Grimes

Samuel B. Smith & Hindell Grossman, in

honor of Sally Jernigan-Smith

Brian Kurzel & Sasha Gubser Leia Guccione

Brian Thornton & Michelle Hamilton

Anne Hankins

Richard & Lonna Harkrader

Seth Harter & Katrin Jellema

Steven Mushkin & Betsy Hawkins

William & Adriana Hayward

Ann Hazzard & Michael Isaacs Richard C. Heath, in honor of Sasha Bylsma

Manna II adai ala

Merry Hedrich

Louis R. Hellwig Kimberly Henderson

Hollis R. Hill

Susan & Dave Hoenig

Joel Holley

John M. Horan

Leslie Hosch

Harlan Howard

Rev. Prof. Wendy & Stephen Huber Denali Hussin & Andrew Sayler

Drew Jaglom

Apollo Jain

Dr. Thale & Eric Jarvis Carolyn & Benji Jasik

Mark S. Jenne

Michael & Chantal Jennings

Dennis & Marsha Haner Johnson

Kristina M. Johnson

Lara Johnson

Johnson Controls, Inc.

Simon Jones

Buzz Kaas

Clifford & Shayndel Kahn Kane Family Foundation Ann & Paul Katzenstein The Kean Foundation, Inc.

Taylor Keep Sybil Kelly

Kennebec Partners Colin Kennedy

Martha & Dane Kennedy

Brett Kerrigan Angus King III

Carolyn Klock & George McCook, in honor of E. J. Klock-McCook

Mark & Karen Koten Keith & Marcia Kreycik

Samantha Laskowski & Leonard Krupinski

Kevin Kyrias-Gann Alma Lantz

Jeff & Lisa Ann Laske Veronica Ledoux Armando Lee Colette Muller Lee David Lesikar

Lucia Swanson & Ted Levine Betsy & Steven Levitas Robert & Nancy Ley Jim & Dianne Light Ronald Lindeman

Dan & Lauren Litchfield

Justin Locke

Peter & Kataneh Lohman

Don Louwsma Roger Luckmann

Frances Ludwig, in memory of Bob Ludwig

David A. Luebke

Edward D. Main, in memory of John H. & Mary L. Main Nahum Ward & Shelley Mann-Lev

Thomas Marcyes Benjamin Martin

Joseph Martinich & Vicki Sauter

Lorne Massender

John & Katherine Jenkins Maxwell, in honor of Dianna & Jarod Rahn

Rex Mayers Alex McCarthy

Susan B. & Robert J. McCarty

Sean McCauley

Michelle & Chad McCombs Julie & David McCulloch Ian & Jennifer McEwen

Thomas McHenry, in honor of Ted White's leadership

Marilyn McNabb

Chuck & Monica McQuaid

Ruth C. Mead

Medtronic Gift Matching

Ralph Martin Mesmer

Meteologica SA

Gail & Andy Meyer

Susan L. Middagh

Ana Sophia Mifsud

Eli Miller

Gayle Miller-Janton

Chris Moser & Lennie Moeller Avi Stopper & Kalliopi Monoyios Laura Deer Moore, in honor of

Arabella Deer Kuplins Georgeann & King Moss

David Mountin

Chris Munger

Drs. Stephen & Naomi Myers Dr. & Mrs. Robert A. Nagourney

Rushad Nanavatty
David & Sarah Nanus

Kameel Nasr

Tom Nehil & Gail Walter

Scott D. Newman Lisa Newman-Wise Norris Family Fund Novartis International

Brian O'Hanlon

Elise M. O'Shaughnessy Ijeoma Ikoku Okeke

Richard Stollberg & Judy Olson

John W. Osgood Caroline Ott David Otterness Donald Padelford Austin Park Edwin B. Parker

Judith Payne
William F. Pedersen
Nicola Peill-Moelter, Ph.D.
The PepsiCo Foundation

Michael Rubin & Andrea Peterson, in memory of Peter Karlsson Rubin Pfizer Inc. Corporate Giving Program

Martin Plotkin & Pam Swing

Bryan Plude Michel Poirier Rebecca Puck Stair Dan & Helen Quinn

David J. Reich & Martha Plotkin
Dave Reichert & Jeanne Thoreson

Mark Reiser Kimball Rice Virginia Roberts

Clayton Rockefeller & Manya Rubinstein

John Roth
Jay & Mary Sachs
Frank & Julie San Miguel
Marina San Miguel
Mark Sandeen

Paul & Laura Santana

Pat Sapinsley

Tedd Saunders

Dr. Stephen & Lorrie Savage John H. & Patricia Schwarz

Andrew Scorsone Nicholas D. Seagraves

Michael Seno

George R. & Heather A. Sepelak

Nancy & Greg Serrurier

J. Walter & Helen C. Severinghaus

Joel & Lori Shapiro Marcus Sheffer Jon Sherman John Sherwin Dr. Glenn Skutt

William & Carol Smallwood

William Smeaton
David Smith
Thomas Smithson
Curt & Michele Snyder
Joseph Song

Martha C. Soukup Carolyn B. Spengler Henry Spindler

Vijayalakshmi Srinivasan Sue & Walter Stafford Virginia Stearns Brian & Perrin Stewart

Brian Stoll

Dr. J Michael Straight Cathie & Charles Sundry Betsy & Mitchell Taylor

Herbert Teter Romain Thibaux Richard & Judy Thomas Harold & Mary Thompson Linda & John Thornton

Norman Tjeltveit

Trade Center Management Associates, LLC

Nao Tsumagari Matthew Tucker

Thomas Van Dyck & Anne-Frans VanVliet

Darci Vetter

VMware Foundation Matching Gift Program

Linda Volkert

Marilyn Wall, in memory of Harry A. Wall Ms. Silda Wall Spitzer, in honor of Russell

Unger

Mary A. Weber, in memory of Jerry Weber

Kate Wedemeyer Rogers & Julie Weed Rick & Wendy Weeks Dana & Steven Weinstein Mr. & Mrs. Stephen Werts

Timothy White David Whitis

Julia Winiarski John A. Winslow

Madeleine & Fred Wolfe

Peter Wolfe

Sarah Wood

John Worts

Ronald Wyss

Y.CO

Vicki L. Zarrell

Anonymous, in honor of Scott McBeath &

Elle Knowles

Anonymous, in honor of Tom Longo

Anonymous (12)

\$250-\$499

AbbVie

Gautam Agrawal

Bob Fiore & Cynthia Allison

Richard & Heather Ames

Kassi Anderson

William D. Anderson

James Arthur

Teresa & Gerald Audesirk

Frank Baker

Torsten Bartsch

Douglas & Maria Bayer

Douglas Bayer

Debra Bernstein

Jeff Bernstein & Jean Stevens, in honor of

Steve Davis

Joseph & Katherine Biegelsen

David Birr

A. Benton Bledsoe

Will Bloomer

Karen Bohan

Dara Bortman

Greg & Becky Bottom

Melba S. Bouquet

Warren Bowes

Robert & Betsy Farguhar Bradish

Matthew Bressler

Brooks Bridges

Richard Bruce

Stephanie Brun de Pontet & Jim Kurst

Laura Butcher

Sally & Tom Cahill

Chris & Laura Campbell

Martha Campbell

Brian Carlsen

Cara Carmichael

Trevor & Ivy Carslay

Roseann Casev

Duke & Jan Castle

Daniel W. Chandler

Chevron Corporate Contributions

and Programs

John W. Christensen, in memory

of Patricia L. Christensen

Stephen & Betsy Clark

Peter J. Condakes

Joseph & Sally Conklin

Mike Cordaro

David & Jenifer Cramer

Joanne Thornton Curtz & Thad Curtz

Frey-Von Driska Charitable Fund of the

Community Foundation

of Northern Illinois

Don Davidson & Sandy Simpson

Eugene & Diane DeJoannis

Heather Douglas & Edward T. Richards, Jr.

Daniel Dreher

Joshua & Cara Drews

Katheryn & Brad Dunn

Jesse Efron

Eggal Foundation

Paul Elias & Marie Lossky

Kellan Elliott-McCrea

Thomas L. Elmore

Kristi Ennis

Christopher Enright

Mark & Catherine Erickson

Christopher Esse

Craig Etchison

Family Mayer Foundation

Gregory Farmer

Ted, Pam, & Sierra Flanigan

Joseph Greene & Nancy Flint Greene

Kellee Fong & Alicia Klein

William Forbess

Tad & Melissa Foster

Pam Franks

Dr. Martha Frede

Judith Fulton & Mark Howard

Thomas Fürst

Hilary & Charlie Garland

Dr. & Mrs. Stuart Garry

Janice Garry, in memory of Lois Scavo

TJ Glauthier & Brigid O'Farrell

Jeffrey Glueck & Amy Ziff

David Godfrey

Robert Walker & Cristy A Godwin

Emily Goldberg

Kayla Goldberg

Linda Grav

Alan & Fran Greenglass

Michael Greschler

Marilyn Grizzard, in honor

of Jennifer Grizzard-Ekzarkhov

Sarah Groves

Marion Hakanson

Jim & Marilyn Hand

Auros Harman

Susan & George Harrison

Emily & Thomas Haslett

Gavin Watson & Andrea Heap

Joe Henry Joel Herm

June H. Hiatt

Patrick & Michelle Hillmever

Barbara Hirsch

K. John Holmes

J Williams Holt

HP Employee Giving Matching Program

Matthew Hron

Hutch & Dita Hutchinson

Burgess Jackson

Nancy Jackson & Eberhard Ramm

John & Rusty Jaggers

John W. Jimison

Jobes Builders

T. Stephen Jones

Clark Messman & Bitta Kahangi

Ronald & Susan Kaltenbaugh

Dawn Kane

John & Kathleen Kauffman

Stephen C. & Belinda K. Kaye

Janet & Jonathan Kempff

Shabad S. & Ann Khalsa

Robert Kittams

Christelle Klovers Ben Kraft

Felix Kramer

Susan Krivin

Daisy P. La Poma

Peter & Fawn Landrum

Clare Laufenberg Gallardo

Bonny & Ken Lewis

Abbie Liel

Ronald Lind, in honor of Bob & Sondra Lind,

& Rick & Kate Lind/Aldrich

John P. Linderman

Carole London

Christina Long Sandra & Benjamin Lovell

Michael Lydon

Kit & Rebecca Zettler Mann Peter March

Langdon Marsh & Ellie Putnam

William M. Musser IV & Jennifer E. McClister

Scott McGaraghan & Amy Cramer

Adam McMurray Jill C. Pfeiffer & Neil C. Meyer

Graham Swett & Grace Miller

Paul Miller

Sydney Mills

Eleni Minnick Momentive Al

George & Ellen Mozurkewich

Richard & Jocelyn Murray Margie Musgrave & Frank Peters

Judith Myers

Kerry & Ricki Newman Sheila & Martin Nickerson Noble Lane Foundation

John & Merilee Novinson

Burke O'Neal Calley Ordoyne Chris Owens

Bryan & Michele Palmintier-Minihane

David Paradise

Kara Shurmantine & Doug Parizeau

Brian & Katie Payer

Brooke A. & Carol Hood Peterson

Lance Polya Roger B. Price Mark Prosser Mark Puskar

Eben & Sarah Rauhut Raytheon Technologies

Andrew Reed, in honor of Brad & Sam Reed

Louann & Robert Reilly

Resource Engineering Group, Inc.

Scott Reynolds Carl Riehl Gary Robb Jonathan C. Root

Chip & Bridget Rorem

Alexander Rosaen

Harper Rosenberg

Robert Ross

John Sofro

Lisa & Stephen Sarfaty

Carol Savary

Mark S. & Judith K. Schaffer

Sue Schimmenti Chris Schneider Jared Schneider Steve S. Scott

Robert W. & Anne M. Shaw Jr

Joy Sleizer Leslie Ann Smith Owen & Tracy Smith Susan Wiesner

St. Andrew's Presbyterian Church

Richard Stein Timothy Stoller

James A.F. Stoner, in honor of Amory Lovins

Bruce Storms Cecily Swabowski Judith A. Tandy Howard Thompson Paul & Robin Timmins

Brad Tirpak Tavo True-Alcala Peter Tucker Letitia G. Upton

Stuart & Elin Valentine

Sandra VanDeHey

Heather & Gary Vaughn

Sara Via

Melissa Wackerle

Caden Watts

Stu G. Webb

Laurence Weinberg

Jeanne Weinzierl

Judith West

Vicki Whitaker, in memory of a friend

Emily A. White Tom Wicker Wahila Wilkie

John & Lora Williams

Ryan Williams

Arthur & Anne Wilson

Ray Wilson

Christian Winkler

Bryan Wollschlaeger

Barry Yatt

Lynne Yeannakis, in memory of Libby

Deitrich Aaron Young Frank Zabel Samuel Zauner Gabriel Zimmerman Graham Zolkowski

\$100-\$249

Anonymous (13)

Robert Abbott

Stephen Abbott Sue & James Abbott

Abbott Laboratories

ABR, Inc.

Robert & Meg Ackerman

Paul Adamson & Gabrielle Saponara

Agilent Technologies

Employee Giving Campaign Leonard Aitken & Susan Brandes Charles Akinlabi, in honor

of Professor Funso Akeredolu

Chad Alevras Thalia Anagnos

Analog Devices, Inc.

Monica L. Russell & Wendy Anderson

Anita & Keith Anderson Benjamin Anderson Richard Anderson Susan & John Anderson Thomas & Tamia Anderson

Bret Andrews

Steve Hartsock & Katharine Andrus

Lynn Appelbaum

Orly Arbit

Wynter Arden, in honor of Sara Carnahan

Ares

Lester M. Arguelles

Lloyd Arnold & Karlene Hewan Lowe

Barbara Askin & Kevin Roche

Nathaniel Austin

Paul Bergquist & Carole Austin

Becky Ayres Eric & Beth Bradley

Crystal & John Babos Lois Bahle & Larry Mawby

Norman Bair

Susan Blanc & David Baker

James T. Baldwin

Samuel & Emory Luce Baldwin

Kurt Ballash

Scott & Laura Robin Bandoroff

Joyce & Gerald Barker Pete & Jeanie Barkett Thomas J. Barry

Thomas J. Barry
Tom Bassett-Dilley

Jonathan Baty

Capt. R. Peter Wilcox & Bridget Bayer Keith Stattenfield & Loretta Beavers

Mr. & Mrs. Thomas Beck

Keith Becker

Mary & Albert Beilby

Bernadette Bell & Kenneth Wachter

Jacqueline Bogard & Douglas James Bell, Jr.

David Benham Edward E. Berg Eugene Bernat

Barbara & Geoffrey Berresford

Jennifer Beu Scott Beyer Philip Bice Mark J. Bigler

Wil Hamilton & Jackie Bird

George H. Bissell David Bixler Kenneth R. Black

Courtney Blackmer-Raynolds Mary E. Blackmore, in memory

of Keith Blackmore

Charles Blair William C. Blake

William R. & Anne H. Blessing

Jerry Blitefield Laurel Blossom Jordon Bluestein

Jim, Regina & Becky Bock Joan & Kevin Bockman

Kath Sercu & Denis E. Body Judith Horstmann & Howard Bonnett

Steven Borgelt Ann D. Bornholdt

Boston Consulting Group

David W. Bostrom

Isabella Bowland

Nick & Marilyn Bowles

John Hemphill & Lynne Bradley

Ann Brayfield & Joseph Emerson

James E. Breck

Donna & Alan Breight, in honor

of Mary & Oscar Peterson

Kevin & Maurya Brenneman

Scott A. Brenneman Robert Brewer

Richard R. Brigham & Sally E. Stapp-Brigham

Eric Broadbent & Susan Macrae

Karla Brom

John Bromley

Karen & Annette Brown

Andrew C. Browne

Joan Brownstein

Sarah L. Buttner, in honor of Doug

& Charlie Brunner & Haskins

Stephen & Cynthia Buher

Chris & Cynthia Burger

Bill Burke

Thomas Burns, in memory of Louise Burns

Rvan Burruss

Helga & William Butler

Nancy & Harry F. Byrd, II

Louise Aiken Calhoun & Keith Calhoun,

in memory of James Thomas Mills

Jorine & Marc Campopiano

Debby Carapezza

Barbara & Bruce Carney

Gina Carola

Guelfo Carpegna

Rebecca & Robert Carr

Robert Carter

Cindy & Webster Cash

Sam & Suzon Cassady

Kevin Castner

Marianne Caswell, in honor of

Greg & John Mascari-Hopkins

Caswell Stocking Family Fund

Michael E. Champagne

Annie Chappell

Richard & Avery Chase

Anne Chetham-Strode & Richard Pinkham

Steve & Molly Child

Dennis Chinn

Ms. Anne K. Clare

Theresa & Rodney Clary

Paul & Hildete Clayton

Elizabeth Clodfelter

Lea Cloud

62

Richard Codina

Sander Cohan

Barbara Cole

Debra Coleman

Janet Collett

Linda & Tom Collier

Bill Collins

Colorado Gives Incentive Fund

Daniel Cook

Anne Cooke

Jonathan Corbet

Kathleen Corcoran, in honor

of Sharon Walker

Janet & William Cordua

Remi Cousyn

D. L. J. C

Robert Cowan

Caleb Cunningham

Richard & Julia Curtis

Michael & Debbie Daehnick

Elizabeth & William Norris Dale, Jr.

Beth Dalton & Brian Henning

Gail Daneker & Ian Keith

Utsav Dave

Randolph Urmston & Eliza Davidson

Andrew M. & Lynn Dykstra Davis

Dr. Terry Root & Dr. Jim Davis

Elizabeth & W. Mark Day

Joe Day

Stephan De Micco & Jeanne M. Fox

Jim DeCecco

Russell Malley & Tynka L. Dees

Anthony J. Del Gobbo

Dana Delaney

Ron DeLyons

Gary Denny

Penny & Ross DePaola

Dr. Joseph & Ms. Johanna Fausto Di Dio

Tim Dodd

Sarah R. & Daniel Donovan

Andrea C. Dorr

Michael P. Dowling

Jed Downs

Dori Drachman

Draper Laboratory

Meghan Duff

Fraser Duke, in memory of Jimmy Mills

Lawson Dumbeck

Charlie Eckart

William Egbert

Drew Ehrhardt

Cara Eisen & Gil Forer

Carol & Chris Eisenbeis

Jenny Eisenberg

Glenn & Lola Embrey

Richard Emmett Linda Engle

Jacque Ensign

Larry & Laurel Erickson

GL Pat Ervin

Douglas Estes

Deborah & Peter Evans

Thomas & Marilyn London Ewing

W. Michael Fagen

Joan L. Farb

Peter Fels & Nancy Helget

Barry Fields

Lorin Fink, in memory of Dave Weller

Aaron Fischbach

Justin Fishkin

Christopher & Heather Flint Chatto

Ryan & Karissa Foelske

Tyler Folsom

Brian Fonville

Robert & Juliette Ford

Lauren Forman

Terry & Donna Forrest

Susan & C. Bradford Foster, III

John Fox

Kenneth R. Fox

Andrew G. Frank

Frank Fransioli & Eileen McGinnity

Elaine & John French

John Fulreader & Dianna Witham Fulreader Merrill K. Furlow

Timothy D. Furst

Charles & Heidi Galgowski

Derek Gann Gap, Inc.

Gerald Gardner

Alisa Gravitz & Joseph Garman

Gartner Inc.

Joel Gates

DeVeaux Gauger

Deveaux Gauger

Michael B. Gaynor

Marcia & Frank Gens

Martha George

Ira Gershenhorn Alena Gilchrist

Wolf-Dietrich Weber & Veronique Gillard

Rebekah & Thomas D. Gilpin

Peter & Michele Girard

GitHub Lawrence Jesse Glazer

Theresa & Ben Gleason

Ann C. & James Goggin Deborah Goldsmith

Kevin Goltz

William Goodhart

Tom Gorman
Thomas Gougeon & Donna Middlebrooks

Alan Simpson & Jane Gouveia-Simpson Mark Graber & Hetty Hall

Leslie & Joni Grady

Royal Graves & Thakoordai Timoll

Dale L. Gray

Richard Grav

Doug & Peggy Graybeal

Laurel Greenberg

Daniel & Katharine Gregory Clark & Diana Greyhosky Peter & Joanne Griesinger

Michael Overend, DVM & Dr. Lucy Grina

Richard L. Grossman Eric, Jill & Zoe Vozick John G. Guffey, Jr.

John G. Guffey, Jr Evan Gull Gilda Gussin Mary Lee Guthrie Josh Haacker Sara Haber

Palmer Hafdahl Roger Hagen Rudi Halbright Alex & Leslie Hall

Cralle & David R. Hall

David Hall Frank B Hall

Joe Hackney

David Hamilton & Nancy Huenke

Margery Hamlen

Rob Haney, in memory of Ed Helm

Tom Hanson Max Haraldsen Lawrie Harris

Jim Hartman & Margaret Sullivan Kate Hartnett & Racheal Stuart

Roy Harvey

Robert J. Hasheider, in honor

of Tom O'Connor

Amy Springer & Aaron Hayden, in honor of Aaron Hayden

Nancy Hazard Ward Headstrom Thomas Hein

Roberta A. Heisterkamp, in memory of Ewan Fletcher Erin Hendel & Morford Scott

Robby Henes Robert Hickey Bryan D. Hickman

Jenny Hill Lee E. Hill

Naomi Himmelfarb Kimble Hobbs, in memory of Nancy Miller Hobbs

David W. Hogan Robert & Laura Hoguet

James Holland Steven Hollingsworth

Michele A. Houdek & Douglas N. Koplow

Rebecca & Eric A. Houghton

Carole Howard Richard Hruby Paul Hubbard, in honor

of Ken Hubbard & Tori Dauphinot

Casper G. Huizenga Robert Preus & Helen Hull Thera Joyce & Bruce Hunn

Helen Hunt David W. Hunter

Douglas Hylan, in honor of Aidan Byrne IBM Corporate Support Program

Informa

Dan Innamorato
Dr. Dave Irvine-Halliday

Anthony Ives

Dick Jackson & Paulina Vander Noordaa Gregg M. Raymond & Jamien Jacobs

Roseanne & Jordan Jacobsen Erik & Toni Jansson, in memory

of Kevin Ebbert

James Jelavich, in honor of Steve Abbott

Jan Jennings Charles Johnson Jann Johnson

Peter & Sandra Johnson Stephanie Johnson Vikki L. Johnson

Johnson & Johnson Matching Gifts Program

Bill & Kay Jones

John Katzenberger & Deborah M. Jones

R. Michael & Florence Jones

Skyler Jones Duane Jonlin Tom Kabat

Walt & Nancy Kaesler Laurie J. Yahr & Rich Kahl

Paul Kaleta Philip Kaluza

Matthias & Helene Kamm

Lorrie Kaplan Rajan Kapur Megan Karels

Heather Karlson & Bill Leeson

Richard Katz Ryann Kehoe Gretchen Keiser Alan Kennedy Mark Kerrigan Ben & Erica Kester Joyce Kidd Jean King Steve Kinkead

Robert Kirk

Ellen M. Smiga-Klein & Todd Klein

Nancy Kleinrock William Klenn Marla Knight-Dutille Andrew Knox

Mark & Nancy Kinney

Mitchell Kobus

Scott & Donna Koehler

Onno Koelman

Rocky & Cordula Koga

Alessandra Kortenhorst

Bern Kosicki

Mary Kostman, in honor

of Rafael Shakun-Berkelhammer Michael May & Kathryn Kramer

Kitry Krause

Steve & Marie Krueckeberg

Dagowin La Poutré Alex Lambrechts Cynthia Lambrick Josh Lampl

J. Moody Lampman & Keith Snow, in honor of April, Greg, & Henry Smith

James D. Lang Julie Lang Laurelin Fund Barbara Lavendar Ann Lawler

Leslie Lazareck
Jacob Le Mueller
Jonathan Lee

Frederick C. Lehmann Charles & Barbara Leiden

Phyllis Leistikow & Hugh Passerini

Mark & Lori Leugers Maxim Levet Michael Levine

Jeremy D. Lewis, in honor

of Chris, Sunny & Madison Lewis

William Lindsay Douglas Lindsey LinkedIn

Douglas & Susan Linney, in honor of Amory

Lovins

Jeanie McIntyre & Geoffrey Little, in honor of Liz McIntyre

Ryan Little

Eric Lloyd & Sandra Pilon

Steven Lober, in memory of Allen Lober

Jon Lockert
James Loewen
Barbara Loftus
Leslie Lomas
Ingrid A. Louiselle
Thomas Lovdal

Marilyn Marloff & John Luker

Brandon, Mackenzie & Cameron Lurie

Allen & Geraldine Macomber Wayne & Suzanne Maggin Patricia & Donald Malberg Daniel & Amy Marcin

Francisco Paco & Sharon Maribona

Shannon Maris

Robert & Jan Marker Kevin Markey & Candice Miller Stephen & Marcia Martinson

Fred Mauhs Chris May Nancy Maze

Emmalyn McAllister & Paul Smith Jonathan & Mimi McBride

Richard McCann

Robert A. McCarthy & Laura G. Rush

Catherine McCormick Scott & Angela McCormick

Daniel Nichols & Douglas McDaniel, in honor of Adam Nichols

Michelle McDonough & Richard Reichler, in honor of Lisa Thilker

Chris McDougall

Tracey & Kathy McFadden

Alan McGowan David McGowan Michael McIntyre David McKinney

Martin Legg & Marilyn McNaughton

Ann McNulty Mary M. McPherson McStain Neighborhoods Hellmut Merkle

Holly Metzler Nick Millar

Dan Mulholland & Pamela Miller

Jono Miller & Julie Morris

Nancy Milliken & Sergei Smirnoff, Jr.

Maxwell Milton

Nick & Nityananda Misra Cynthia & Joseph G. Moffat Brad & Ellen Molotsky Betty & Robert B. Moore Richard Paul Moore

Margaret Morgan
Carlos Morillo

David L. Morris Margaret Morrison

Fran Morton
Tim Mount

Ms. Madelynn Mueller, in honor of Nurah & Nasir Shabazz

David Munk

James F. & Lynn T. Murray-Coleman, in honor of Anne Burnham

Mr. & Mrs. Eric Musser

Thomas J. Myers Jay & Toni Nading Steve Naragon Sailesh Nepal

Stephen & Robin Newberg

Ginna Newton Oluf Nissen Richard Nolde Lyna Norberg John C. Norris

NVIDIA Corporation Employee

Giving Program Steve O'Rourke Ned Oliver

ON Semiconductor

Catherine Orendac & Jeff von Breitenfeld

Peter & Janet Ostrowski

Evan Oxenham

Pacific Gas and Electric Company

Alice & Mark Palmer

Everett A. & Rebecca H. Palmer

Robert P. Paone

Joel Papo Rohan Parikh

Craig Shillinglaw & Kristina Parker

Richard Parker, in memory of James Mills

Amy & Kent Patton Gregory & Mary Paul Pete Peacock James Peeples Scott Peer

Chien Chung Pei Richard Pennock

Margaret & David H. Penoyer, Jr.

Max & Caroline Perkins,

in memory of Stephen B. Perkins

Samuel & Charlotte Perkins, in honor of Hannah Perkins

Marilyn Perona

Claire & Eugene Perricelli Eliana & Andrew Perrin

Jane Peters Erica Petersen Wayne Peterson Lisa Phillips

Dr. Robert K. & Marilyn Pinschmidt

Pohlad Family Foundation

David T. Poole, in honor of Generous Donors

Chris Pope Judith Popkin Melissa L. Post Lloyd Prentice

Dr. Scott & Lorraine Presson Rebecca Pryor, in memory of Stephen P. Phillips Leah & Darrell Quam

Susan Quinlan

James & Donna Ramsay Ken & Emily Ransford Steven Ratcliff

Peter & Helen Raudenbush

Lee Reading Frances M. Rehwald

Drs. Leon A. & Alva H. Reid, III

Gwenyth Reid Philip B. Reinhart Richard & Maryruth Reis

Robert S. & Myra L. Rich

The Richard G Verney Revocable Trust

David Richardson Michael Richardson Ron & Karen Riggert Jacco Rijnbeek Kristil & Jeff Robarts

David & Allison Roberts Robert & Linda Rodriguez,

in memory of Linda E. Rodriguez

Paula & Jim Rogers

William C. Stewart & Kalima Karen Rose

Michael Rosen

Michelle & Marc Rosenbach Nathaniel Rosenblatt

Dena Ross Jimmy Royer Callie Ruh Pablo Ruiz Gray Russell

Landon & Charlotte Russell

Laurie Rydell

Michael Sacks, in memory of Bruce McConnell Shari & Seth Saideman

Gary & Ruth Sams, in honor of Lacey Tan

Sappo Hill Soap John M. Sawyer Barry Schiffman Margaret Schiller Robin & Jennifer Schiller

Anna Schneider & Matthew Wittmann

Chris Schuler

Christine & Dave Schultz

Terry Schumacher & Thi Tran To-Chau,

in honor of To-Chau Tran

Craig Schuttenberg Alan Schuyler Paul & Susan Schwarz Dick N. & Lupe Sears Susan Secord

Lawrence & Lorraine Seidl

Gary Seim
Dr. Jason Sell

Allyn & Karen Seymour Norma & S. Scott Shannon

Jonathan Shaw

Burnette & John Sheffield Michael & Susan Shepard Mrs. Edward M. Shepard

Susan Sheridan

Charles & Laura Shifflett

Ron Shoemaker Ralph Warren Short

Roger & Susan Short Lee & Nick Shrewsbury

Joanne L. Siegel & Walter F. Thiem, in memory of Suzanne Thiem

Steven Simmons Carol Ann & John Simon

Martin Simon John A. Slade Len Slusser

Edward & Adriana Smeloff

David Smernoff, in memory of Julie Lovins

David T. Smernoff Steven Smiley

Christopher T. Smith, in memory

of Gail Gorlitz

Louise & Florian Smoczynski Linda Snelham-Moore

C. Michael Sobol, in memory of David Paris

Marc & Deb Solomon Robert Soule

Steve Spanbauer Bradley Spilka Rebecca Stebbins Gilein Steensma

Martin & Kathy Stern Gordon Steuck

Gary & Margaret Stewart

Moshe Steyn Melissa Stok

Greg & Joyce Studen William & Angelica Sturm

Beth Sweet William Swift Mark Swingle **Brooks Tanner Robert Taylor**

Harold Teasdale, in memory

of Carol Teasdale Molly & William Tee **Erik Teegerstrom** Michael & Diane Teetsel Texas Instruments Foundation Mark Thielking & Moira Trachtenberg

Robert Thille **Preston Thomas**

Thrivent Financial for Lutherans Lin Tian, in memory of Edward Helm

Mike & Annie Tierney John Titcomb Tlaloc Tokuda

James H. Tolson & Robert G. Asperin

Margaret & Roy B. Torbert William & Susan Tracy

Ashley Traut Dennis Tulenko Kevin Turner Mary Ullrich

Melissa Unger, in honor of Ron Connell

Ken Urbanek Jeff Van Ee Cathy Van Maren Heidi Vangenderen Marc P. Vayssieres Michael & Lisa Vernon Martin & Bettina Voelker

Donald Voigt

David J. & Marilyn Walker

Ron & Pat Wallace Ginger Wallis

Richard C. & Patricia Walters Mr. & Mrs. James V. Walzel Donna Miller & R Thomas Ward Nathaniel & Julie Wardwell

Louise O. Warner James S. Waugaman Kathleen Weber Kathy & Wever Weed Thearin Wendel

Bart Wendell

Deneen & Raymond G. Wentz

David Werle **Douglas Wheeler** Emily C. White Robert Whitfield Lara & Marc Whitley **Robert Whitmore** David K. Whitney Katya Whyte James Wick **Howard Wiig**

James Wilde **Brent Willard** Paula G. Williams

Jessica Windham Peter & Janice Wizinowich

John Wojtyna

Tobias & Catherine Wolff Roy & Tracy Wood

James & Emma Jean Woodyard

WSP USA Ginny & Pete Yang P. Gilmer Young Rai-Ching Yu

Wenli Yu & Jenney Zhou, in memory of Edward Helm

Zero-Carbon Future

Scott Zhang

Zimmer Gunsul Frasca Architects LLP Rhonda Zingraff, in honor of Rick McBane Stuart Zinner

Antonia Zurcher

Anonymous, in honor of Anthony Harrington

Anonymous (22)

Below \$100

Patrick R. Adams Carl & Martha Adkins

Peter Aengst & Kate Wright

Megan Ahern Air Products Philip Alcocer V. Alexiades

Robert Alico Bessma Aljarbou Eliza Allen

Edgar Almeida Amy Alsip

Steve Hach & Marty Ames

Varun Anand Caitlin Anderson Grav Anderson Mark Anderson Edson Andrews Karen Ashikeh Amy & Todd Atkins Nicole Auerbach Gary Augustson Lori Austin

Automatic Data Processing, Inc. (ADP)

Eduardo Avilez Michael Babitch

Geoff Badger & Karen Gaydon

Jitendra Bajpai Lynne Baker Mary-Lane Baker Christoph Bals W. Thompson Barberi Michael Barth

Mavis Bates & John Koranek

Lauren Baum Rex & Jan Bavousett Matthew Bearzotti Gerald Beck Claus Becker Bruce Becque Kay Beeley

Marjorie Stevens & Michael Beilstein Kurt G. Benedict & Marie M. King

Thomas A. Benish Mukhub Benmenni David Bequeaith

Alan Ness & Margaret Bergmann-Ness

William Bergquist

Eddie Oteiza & Penny Bidwell

Jon Biemer Robert A. Black Max Bollen Mark Bollenbacher Sarah A. Bond

Julie Bond-Meers, in memory of Dorothy Bond-Meers

David Boothroy Jane Boriack Irina Borozan

Felipe & Dianne Borrego

Sherry Boulay, in memory of James Mills

Barbara & Robert Brandom

Paul Breaux
William Brewster
Michael Brickey
Sonja & Richard Brook
Michelle Brotemarkle
Faith & Edwin Brown, in memory

of John Denver Kathie K. Brown

James & Theresa Browne

Mark Browne, in honor of Sean Guthrie

Jason Brunk
James N. Buchanan

Robert & Antoinette Buckner

Ashley & Jonathan Bull

Gail Bundy
Kaitlyn Bunker
Brian Burns
Sandra Burrill
Claire Burtin
Bruce Byrne
Danielle Byrnett
Ted Cadman
Jonathan Callender
John A. Campbell
James & Meredith Carli

Phyllis Carosone-Link & Christopher Link, in memory of Jack Twombley

Timothy Carrigan Gordon Cartwright Allan Castellon-Perez Monty Caudle

Cauze Charitable Fund

Brett Cease

Jonathan & Kathryn Chaffee

Damien Chagnaud Paul Chakroff Kristine Chan-Lizardo Mohan Chandrasekaran Chris Chapman

Julien Chemouni Bach Pamela Chipman

Dora H. Chu, in memory of Edward Helm

James Chupa

Jim Ciprich, in memory of James Mills

Jonathan Clapp Arthur & Marybeth Clark

Chris R. Clarke Christina Clarke David Clarke Ruth Clifford Climbing Sun Karen Close Lorraine Cohn Matthew Cole

Robert & Diane Collier

Alan Comeau

Bruce, Judy & Erin Connery Kathy Conway & Alan Journet

Peter B. Cook
David E. Corbin
Eric & Angelyn Cornetta
Jonathan Coulter
Robert J. Coulter
Michael Cozart
David Crafts
Thomas Cressler

Malcolm & Marcia Crosbie Marion P. Culhane, in honor of Wayne & Georgia Pollock

Robert Michael Curran

James S. Weinberg & Mary Beth Cysewski

R. Gordon Dailey, Jr.
Kooch & Victor Daniels
Laura Stats & Brien Daugherty
Chris Daum & Ace Johnson
Jane Davidson-Neville
Gillian Davies & Aaron Pailes
Cecile & Lawrence Davino
Alexander De bordes

Holly A. Zimmerman & Peter DeCrescenzo

Tony DeLoach Tim Delp Ron DeMattio Robin Dern Alex Dews

Jack D. & Nancy J. Dick Meredith Dillon

Meredith Dillon Chris DiMurro Tim Dirr Aterah Nusrat Michael P. & Susan K Dix

Katharine Dodge David C. Dorman Carl Dorner Debra Douglas

Kinsey Durham Grace Sally Duros Mike Dwyer

Mike Dwyer John Dyer Peter Eberle

Holly Eckert & Jonathan Knapp

Vonny Eckman

Marilyn Elie, in memory of David Sokal

Johnathan Elliott Marion & Merritt Elmore Bill Erickson Colin Evans

Michael & Coleen Evans Daniel M. Everett Jeron Eywetay Harold Federow Karen & Alex Fedorov Ken & Ruth Feldman J. Allen Fervok

David Kirkpatrick & Sally Fessler

Bob Finn Stephen Finn

Frank Fish & Gail Headstrom

Angela Fisher

Elliott Fishlyn & Laura Green Amy Munsat & Harry S. Flamm

Adam Flynn Thomas Flynn Piet Fordel Eric R. Fosgard Joseph T. Fowler Ken Frankel David Freemire

The Fricke Family, in memory of John Denver

Ken A. Fuller, Jr.
Richard Fuller
Durairaja G S
Jason Gabriel
Christopher B. Galton
Ken Gamauf

Ken Gamaur Glen Garfunkel Sara Garton Lydia Garvey Richard Gasaway Roberta Gastmeyer

Richard D. Wilson & Gina Gaurisas-Wilson

Albert George Mark Giese Joe Gleason Brad Goettemoeller Charles Goff Nancy T. Goodall Anthony Goodchild

Nancy Goodman & Jim Gutstadt

Eugene Gorrin

Raymond & Sehriban Graap

Marcia Greenberg Jack Greene Marji Greenhut

Gustavo Grunbaum & Jill Schroeder Scott Mathieson & Diana Gustafson

Boone Guyton Brent Halbert, MD Laurie Hammond Andrew Harmsworth Robert & Susan Harper

James Harris & Cori Sutherland

Alice Hartley

David Harwi Clifford Hathaway Penny Hause Joshua Hecht

Rick Heede

Thomas & Colleen Heinemann

Ken & Carol Henry John Hermanson Maggie Hettinger Karin Hilding Don Hille Richard Hine Karen M Hlynsky Stephen Hocquard Leonard Hodgeman Richard Hoenich

Arlene Hoffman & Henry Sodke Mary G. Wetzel & Theodore Holdahl, in memory of Richard H. Goodwin

Keith Hollon Kevin L. Holmes

Joan & Robert R. Holt, Ph.D. John T. & Deanna M. Homer Dan & Kathleen Hooper

Nevin House Verne W. House

Nelson Howard, in honor of Amory Lovins

William Howard

Richard & Tamar Howson

Patricia A. Huberty & Richard McBride

Heather Hudson John Hudson Evan Hughes Ken Hughes Judy Hulse

Jimmi Suzanne Hutchins

Steven Ignots & Stella Acevedo-Ignots

David Inouye Hugh Irwin

Jane Ives, in honor of Sharon Holiner

Alexis Iwasiw Travis Jackson Donna & Jeffrey Jaffee William James

Stephen Jelinek & Betsy Wisch

Erik Johnson
Perry Johnson
Alison C. Johnstone
Christine Jolluck, in honor
of Lewis H Durland IV
Anita & William Nelson Jones
Jared Jones & Liz Walker

Kim Jones

Laura Judge & Kelly Price Debora & Keith Kaback

Renee Kabin Kenneth Kahn Larry & Renee Kaiser- Muelken

Matthew Kalman Dylan Kapur Richard Katzenberg Bruce Kaufman Alison Keehn Gina Keel

Beth Keer

Gary Kellman & Rachaele Raynoff

Donald Kendall Jr Larry Keogh Craig Kilcourse David King Dennis King

Alexander & Priya Kinneer

Susan Kircher Bayless Kirtley Leif & Joan Knutsen Carolyn A. Koch Alexei Koseff Megan Kramer Donna Kuroda

Sandra Kurtz & William Kurtz

Larry Lamb Roger Lamson Kristina Lane Carolyn Lange

Adam Kurowski

Witt & Beth Langstaff, Jr. Claire & Ryan LaPoma

Idalia Larsen

Ronal & Gretchen Larson

Jeff Law Donald Lawton Chris Lazinski Geoffrey Leek

Marie Camille Lentsch William & Sally Lermond Geoffrey H. Lester

Kai Levy Don Leyland Ted Linnert Shira Lion Roger Lippman Stephen Litz

Louise Lockwood-Zorowski

Rex Loker
Barry Lowry

Margaret & Paul M. Lurie

Jasmine Lyn

Suzanne Mackson, in honor of Norman & Barbara Brickman

Donald Madden Kiran Magiawala William B. Marks

Kathy Pillsbury & Cindy A. Marshall

Greg & Amory Martin

Janet Martin, in memory of Daniel Martin

Jeremy Martin Casey Mather John M. Matuszak Bernie McComb

Josephine McConnaughy
Courtney & Lynn McCracken

John McCreery
Janice McCullagh
Jennifer McFarlane
Kevin McKee
Courtney McKeldin

Chilton & Jane McLaughlin

Robert S. Means Susan Means John Medlock Joel & Bonnie Melnick Alfred C. Meyer

Fadia Middlebrook, in honor of Richard Culmer's mother &

his cousin Barry

Susan Milana, in memory of Michael Petach

Dwight Miller John D. Miller Ruth Miller Gary Milligan Gary Mills

Bonnie Miskolczy, in honor of the Earth

Stephen & Wanpen Modell

Dominic Molinari

Leland & Karen Montgomery, in honor of their children Dr. Barbara Morchower James J. Morehead Diantha Morse David & Caroline Moyer

Ron Muller Gary Munkhoff A.F. & Mary Lynn Munro Shouvanik Mustafi Thomas R. Myers Jean Naples

Thomas R. & Herminia Neet, Jr.

Jacqueline A. Neurauter

Michael Newton Joel Neymark Yen Nguyen Mick Nickel

Walter & Dana Nixon Melinda Noronha Dorothy Northey Kirsten O'Daniel Kevin O'Reilly

Kathy C. Oppenhuizen

Oracle Corporation Matching Gifts Program

Eugenia Orlowski

Larry & Millie Orzechowski

James Brian Ostrom Janna L. Ottman Denis Oudard

Zhao Ouyang Mark Oven

Jeff & Lynda Parker J. Mark Parsons

Jim & Lucinda A. Pasternak

Gary Patton Jack R. Pealer Jr.

Lisa Wells & Frank Penny

Noah Pestana Victor P. Petrolati Tim & Diane Pfaff Jane W. Pfister Jeffrey Phillips **Robert Phillips**

Charles & Carolyn Pilgrim

Tania Pilon

Bruce M. Plenk, in memory of Drs. Agi & Henry Plenk

Polaris Inc.

Jamie & Greta Ponce Donald E. Porter Randal Pride Nancy & Bob Pulley Nick Radonic

Kevin & Michelle Ralph

Gordon Rands Janet Reinhart John P. Renie William M Resnick Felix & Rubelyn Rhodes Lawrence M. Rice

Paul Rice

Donald Richardson Cary Richman Elaine Rideout Don Riggs

Maureen O. Riley

McLouis & Harriette Robinet

Roblox Skip Rochefort Randy Rodgers Tim Roorda Stanley Rorick Matthew Rosen **Gregory Rosenberg**

Joe Ross Richard H. Roth Richard Rundstein Dave Russell

Pamela & David Rustad

Gloria Sage Susan & Jim Sajo Anne Salisbury Michele Santoro

FM Saunders Karin & Peter Savio

Patricia R Sax & Kathleen E. Taylor

Mark Schaeffer

Joyce & David Schmoeger

Susan Schubert Marston & C. Schultz Jon R. & Jane R. Schulz Laurie & Greg Schwaller James Schwarber George Scribner

Guenther Seidel, in honor of Amory Lovins

Jim Setterlund

Michael Shader & Eleanor Morrissey

Cindy Shea Benjamin Shepherd William Shepherd

Shreejika Shrestha

Steve & Loretta Shull **Debra Simes** JoAnn Simms

Cathy Sims Peter Sinclair Siri Vedya Singh Ron Singleton Rob Sisk

Nicole Siskind David & Laura Skaggs

Mark Skinner Randy Skizinski **Daniel Slanger** Barbara & Marc Slovak Robert G. Smith Ted Smith

Paul Smolen Dr. & Mrs. Larry Sobel Nicholas Sofios, Ph.D.

David Sokal, in memory of David Sokal

Hans-Georg Sommer Preena Soni Ed Soph Lisa Sorensen Pamela Soukev **Lindsay Sousa** Lorenzo Spaccarelli Gahl Spanier

Roger Sparhawk

Connor Solomon

Kathie Sparks Thornblad

Stephen Spector Daan Spijer Paul Sprecher The Spurry Family William Stack Steve Stevens Bill Stigliani, Ph.D. Dale & Kathy Stille Lloyd Stires

Henry & Jeanne Stone

Kim Stone Survey Monkey Kalpana Sutaria Stetson Suter Jon & Cathy Swanson

Ann & Roger Sweet Keith Sweetman Michael Swords Chris Tallackson Michael Tennican Suzann Thompson

Toast.org Mr. Jan E. Tone Roy Torbert Jake Tornatzky Caelan Trogdon

Daniel & Janis Tuerk, in memory

of Jeff Tuerk Chase Turner

Anna Ruthe Tyson, in memory

of Darla Tupper

United Health Group Gift Matching

USAA: Insurance, Banking, **Investments & Retirement** Katherine & Robert G. Utter

Alan & Courtney Uy Venkataseshan V Alex & Linda Valentine Michael van der Meer Susan Vargas Barbara Veit

Demetra & James Versocki

Dan Vetter Luis J. Villegas Everett & Alice Volk Ben Volok

Susan Waites Tiffanie Walker **Bruce Walton** Kate S. Warner Dr. Barbara H. Warren Brian Warshawsky Penelope Washbourn **David Wasserman** Philip Weathers Randall Webb Martin Weiss

Judith & Philip W. Westin Ann & Tim Wheeler

Curtis White Derek White Jerry & Jean White Richard E. White

David Wendt

Mark Widrig Mark H. Wigg John H. Wilder Jr. & Susan L. Wilder Chely & Jeff Wilkinson John C Williams Pat Wilmoth Richard Wilson Sarah Windes John Winer **Bonetta Winters** Tom Winters, in memory of Joanne Winters Nancy Wittels Jeffrey Wong Craig & Anita Woods Catherine & Edward L. Woolston Eric Wurzbacher Brandon Wyman **Edward Yaker** Thomas Yeh Jenny Yeremiy Gregory Zahradnik Yupu Zhao **Emily Zheng** Beth Zigmund Kristin Ziv Kurt Zoglmann Claudia E. Zornow Anonymous, in honor of David & Jenifer Balducci Anonymous, in honor of Kathy Guest Anonymous, in honor of Meghna George Anonymous, in honor of Raymond Song Anonymous, in memory of Joseph & Jenny Menger

In-Kind Contributions

Anonymous (35)

Anonymous, in memory of Xiaomi Li

Farella Braun + Martel LLP
Fennemore
Foley Hoag LLP
Kilpatrick Townsend
Littler Mendelson P.C.
Morrison & Foerster LLP
Stephen Ryan Consulting Services LLC

Additional Funding Provided By

Australia Department of Foreign Affairs and Trade California Energy Commission Colorado Energy Office Environment and Climate Change Canada Global Environment Facility Government of Switzerland, Federal Department of the Environment, Transport, Energy and Communications, Federal Office for the Environment Green Climate Fund International Finance Corporation (IFC) Monetary Authority of Singapore National Science Foundation UK Foreign, Commonwealth and **Development Office** US Department of Energy US Department of State US Department of Transportation US General Services Administration US Trade and Development Agency The World Bank Group

RMI Legacy Society

The RMI Legacy Society honors those who remember RMI in their bequest or other planned gift in their will or estate plan.

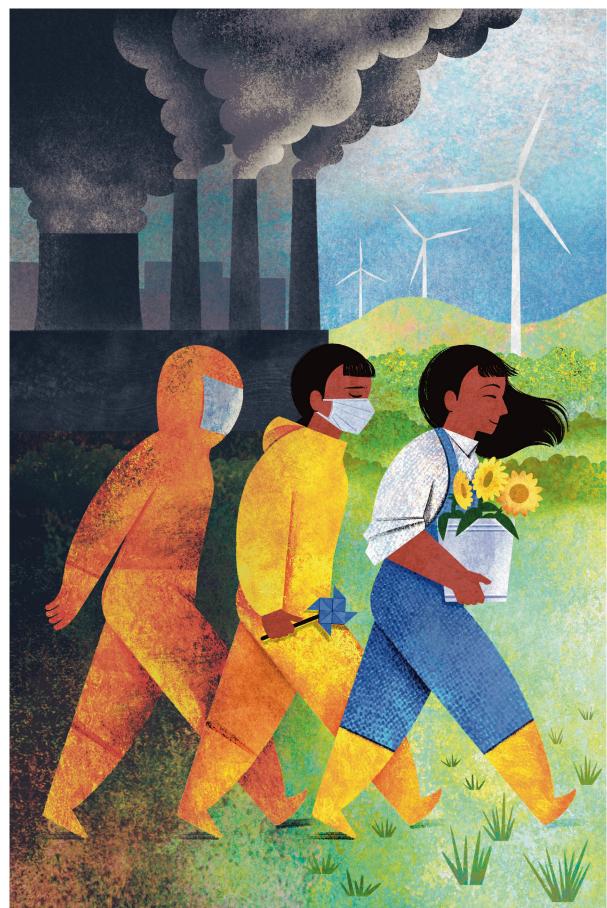
Barbara Askin and James Kevin Roche David Balaban Nancy Hanson-Bergstrom and John Bergstrom* Diana Beuttas* Esther and Francis Bligh* Kathie K. Brown Donald L. and Deborah Butler Joanne and Michael Caffrey David I. Caulkins Jonathan Peretz Chance John and Lou Chapman Richard and Avery Chase Anne Cooke Cathy E. Crouch Carol G. Dano **Durfee Day** Paul Desjardins Gregory Doane* Sally Dudley* and Charles Sieloff Martin P. Dugan Richard Ford Naomi Franklin* Cheryl A. Glaser Sandy Gold Peter Greenberg Margaret Gruger*

Peter Greenberg
Margaret Gruger*
Robert T. Haines and Kathryn C. Haines*
Laura Hart*
John and Marcia Harter
Karen Vitelli and Reginald Heron*
Margaret and Charles Hollowell
Joanne E. Horton
Dale Hoskins

Betty and Daniel E. Jantzen Steven Jungerberg Ruth F. Kapes* Stanton Klose Michael and Colleen Kunkel Robert James Lane* Craig and Barbie Laughlin Erika Leaf Eleanor and Jerry Leeper* Amory B. Lovins Julie B. Lovins and Gregory Fowler* Laura P. Maggos Joel and Jean McCormack Meredith McIntosh W. Patrick McVay Marge Wurgel and Keith Mesecher Peg Moran* David Muckenhirn James M. and Louise Wilson Noves Yevrah Ornstein* Martha Pickett and Edgell Pyles Ann Pruitt Deborah Reich* Eric Ringsby Bruce Hathaway and Karen Sagstetter Kerwin L. Schaefer Mark and Judith Schaffer David and Joyce Schmoeger Joan Semmer J. Walter and Helen C. Severinghaus* James Dennis Seyfert* Joel Shapiro Jane Sharp-MacRae* Rheua S. Stakelv* Cathie and Charles Sundry Etel and Joseph B. Thomas, IV* Raymond D. Watts* Rom and Pamela Welborn T. Walley Williams Anonymous (30)

Anonymous* (4)

^{*} in memoriam



CLIMATE ART

Winds of Change (2024)

Susie Oh (South Korea, @susieoh.art), Digital, 16.25 in x 11 in

Locations and Contacts

RMI is an independent nonprofit, founded as Rocky Mountain Institute in 1982, that transforms global energy systems through market-driven solutions to align with a 1.5°C future and secure a clean, prosperous, zero-carbon future for all.

We work in the world's most critical geographies and engage businesses, policymakers, communities, and NGOs to identify and scale energy system interventions that will cut climate pollution at least 50 percent by 2030.

RMI has offices in Basalt and Boulder, Colorado; New York City; Oakland, California; Washington, D.C.; and Beijing.

Our Offices



Boulder, CO

2490 Junction Place, Suite 200 Boulder, CO 80301 303.245.1003



Basalt, CO — RMI Innovation Center

22830 Two Rivers Road Basalt, CO 81621 970.927.3851



Washington, D.C.

1850 M Street NW, Suite 280 Washington DC, 20036 202.717.8448



New York, NY

17 State Street, 25th Floor, Unit 2500 New York, NY 10004 315.266.9600



Oakland, CA

1901 Harrison Street Suite 200 Oakland, CA 94612



Beijing, China

Room 1606 Ocean Park Tower C, No. 5 Jinghuananjie Street Chaoyang District, Beijing +86.10.8588.5408

