

QUARTERLY IMPACT REPORT WINTER 2024

RMI's vision of a clean energy future commits us to

# THINK bigger, DO boldly, and SCALE globally.

#### Bringing Energy Transition Funding to Local Communities

The Greenhouse Gas Reduction Fund (GGRF), a \$27 billion program from the Environmental Protection Agency, aims to create jobs, position local economies to benefit from decarbonization, and bring the energy transition to communities. RMI is supporting community lenders and other critical stakeholders in exploring creative ways to improve program implementation and make sure the fund delivers on its potential. We supported GGRF applicants in enhancing their submissions, including through public thought leadership and tailored recommendations for effective applications. Our work will help to bridge the gap between community lenders and private banks and directly impact the strategy and capacity of GGRF fund winners.

## **Calculating E-Bike Benefits**

From reductions in greenhouse gas emissions and air pollutants to economic savings due to reduced fuel and maintenance costs, electric bikes (e-bikes) offer big returns for communities and individuals. **RMI's E-Bike Environment and Economics Impact Assessment Calculator for Cities simplifies the process of assessing a shift to e-bikes** for policymakers, transportation officials, and advocates. The tool estimates the impact of e-bikes as a substitute for short vehicle trips, based on a city-wide mode-shift to e-bikes goal; it also estimates the impact of an e-bike incentive program. With the tool at their disposal, cities have the data they need to make the climate-friendly shift. **Learn more at www.bit.ly/RMI-bikecalc** 



## **Clean Energy for Schools**

RMI supported hurricane-resilient clean energy systems at three schools in The Bahamas. Named the 2023 "Best Energy Resilience Project" in the Caribbean, **the solar and battery storage systems supply schools with an average of 90 percent of their daily energy needs** and function as hurricane shelters for surrounding communities. The nation also launched a solar and energy auditing training program to build local skills and expertise — further illustrating The Bahamas' efforts to scale clean energy access.

#### **Practical Tools to Decarbonize Buildings**

Buildings are responsible for 40 percent of the world's CO<sub>2</sub> emissions, presenting an important climate threat and opportunity. RMI, together with the Advanced Building Construction Collaborative, published **a new report with essential technical and cost guidance to scale zero-carbon new construction and retrofit solutions in different climatezones.** We also launched a complementary tool for contractors as part of the leading project management system already in use. It allows contractors to easily implement retrofit packages for a specific building, from estimates to procurement and beyond.

### **Green Steel and Aluminum in China**

With our Supply Chain Emissions work, RMI supported China in establishing local carbon accounting standards and fostering industry collaboration for enhanced product emissions transparency. We analyze decarbonization routes in the Chinese steel sector for cost modeling, facilitating green procurement. **Through interviews** with Chinese aluminum producers and field studies at recycling sites, we are exploring local decarbonization opportunities for aluminum technologies, electricity decarbonization, and post-consumer scrap recycling. This work is creating a climate-differentiated market in the steel and aluminum sectors.



Pictured: RMI and the Compass Solar team in front of a solar and storage installation at a school in Abaco, Bahamas, that had been heavily damaged by Hurricane Dorian.

## Slashing Methane

Methane is a potent greenhouse gas with more than 80 times the warming impact of carbon dioxide over 20 years. Reducing it is critical to limit warming and improve human health and environmental quality.

RMI also launched the Waste Methane Assessment Platform (WasteMAP), a new, open, online platform that aggregates and maps waste methane emissions data. It features a decision support tool for policymakers, landfill operators, and others, allowing them to establish baseline methane emissions and model alternative scenarios with improved waste management practices.

Our federal policy and climate intelligence experts contributed to a new rule intended to slash methane pollution from the oil and gas industry. The finalized rule was announced by the EPA in December 2023 and reflects key recommendations from RMI (and partner Carbon Mapper) on the establishment and implementation of a Super Emitter Program that enables thirdparty tracking and reporting of large methane leaks to improve industry transparency and accountability in the United States.

## **Sustainable Aviation: A Milestone Year**

This past year marked a turning point for sustainable aviation. In November, 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 waste products — produces 70 percent less carbon emissions and helps to eliminate aviation contrails, a substantial contributor to global warming.

RMI's Joey Cathcart and Thomas Koch Blank were aboard that historic flight. With extensive experience studying contrails, they helped trial a new reporting protocol during the flight. Developed with Virgin Atlantic, the innovative in-flight contrail observation reporting process is quickly proving to be easily applied, helping



to improve contrail prediction modeling accuracy and enabling increased confidence in the application of contrail mitigation actions.

Virgin Atlantic is one of 10 founding members of RMI's Contrail Impact Task Force, which has grown to include over 50 participating organizations since its launch in November 2022. With funding support from Virgin Unite, Alaska Airlines, and RMI philanthropist Chris Kohlhardt, the task force is advancing the conversation on what is needed to integrate contrail reduction solutions into everyday operations.

The flight was also an important breakthrough in demonstrating that SAF can be used safely as a drop-in fuel — one requiring no aircraft modifications. But for SAF to be widely used, the market needs to grow. The SAFc Registry, created by RMI, the Environmental Defense Fund, the Sustainable Aviation Buyers Alliance, and Energy Web, was launched at COP28 to bring consistency and transparency to the SAF certificate market. It connects corporate consumers, air transport providers, logistics providers, and clean fuel producers in a globally accessible platform that will encourage the use of sustainable aviation fuel through the purchase and use of SAF certificates. The registry will be put to use in 2024 supporting the Sustainable Aviation Buyers Alliance collective procurement of SAFc, the largest such effort to date.

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

## **Climate Friendly Buildings in China**

As the world's top oil importer, coal producer, and carbon emitter, China is a critical leader in ensuring global success in the climate crisis. RMI China is dedicated to accelerating a just and equitable decarbonization of the country's biggest carbonproducing sectors, partnering with communities, regulators, utilities, businesses, and national and provincial leaders.

Buildings — a chief contributor to global warming — have been a major focus. We recently provided technical support to advance the country's first national standard for zero-carbon buildings. Our team is also promoting zero-carbon heat pumps in the Yangtze River Delta region, one of China's most densely populated regions — where 20 million residents are without heat. Our analysis demonstrates how heat pumps can serve as an energy-efficient, low-cost, and low-emissions solution to heat homes in the area.



We also unveiled the 6D Zero Carbon Architecture Center to promote climate-friendly buildings in Ningbo, China. The Center integrates six design principles: passive design, energy-efficient systems, renewable energy, flexible loads, intelligent operations, and sustainable materials, providing a technical reference for the zero-carbon transition of the building industry.

These and other market-based climate solutions will help ensure China is on track to lead the global clean energy transition as a fossil-fuel-free, zero-carbon economy.

#### SUPPORTER SPOTLIGHT



- 66 To solve the climate crisis, we need macro-thinkers who are solutionsoriented. That's where RMI comes in."
  - NAG RAO, ENTREPRENEUR AND RMI ACCELERATION FUND DONOR

Nag Rao has always been committed to the environment. He's a devoted vegetarian, built a sustainable home, and sold his successful software company to start a new one dedicated to commercial-grade electric lawnmowers, OSO Electric.

He also believes in encouraging early-stage innovation and blazing a trail with his investments. And by giving to RMI's Acceleration Fund, he and his wife, Seshu, are doing just that. This flexible funding helps RMI pilot new projects, respond to emerging opportunities, and scale proven solutions.

From supporting worldwide vehicle electrification to implementing the Inflation Reduction Act, gifts to the Acceleration Fund give RMI flexible funding to pursue and scale the big, bold ideas that will become the next climate breakthroughs. Learn more about the Acceleration Fund at rmi.org/AccelerationFund

## WHAT YOU CAN DO



Learn more about this work and how you can take part in the clean energy transition by scanning this QR code with the camera on your smartphone, or by visiting: rmi.org/impact-winter-2024