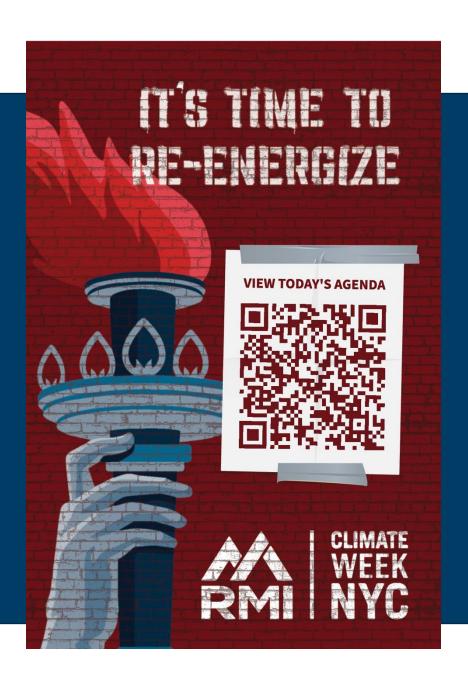


AGENDA

View the full day agenda online by scanning the QR code >>



It's Time to Re-Energize

Sept 24, 2024





FULL DAY AGENDA

8:45-10:15 a.m. SESSION 1: Opening Remarks & Re-Energize Corporate Action

10:15-10:45 a.m. -BREAK-

10:45-11:45 a.m. SESSION 2: Re-Energize Efforts to Slash Methane

11:45-12:30 p.m. –LUNCH–

12:45-1:30 p.m. SESSION 3: Re-Energize Communities

1:30-2:00 p.m. -BREAK-

2:00-3:00 p.m. SESSION 4: Re-Energize the Conversation



Opening Remarks







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RESOURCE: India at 2047

Please use this QR code to access RMI's report "India at 2047: A Vision for Energy Independence in the Mobility Sector"







SESSION 1 Re-Energize Corporate Action

8:45-10:15 a.m.







Thought Leaders

We apply rigorous data, research, and analysis on technology, economics, and policy.

On-the-ground Implementers

We're focused on getting the job done; we enable companies to design, procure, and execute on scalable, high-impact projects.

Market Shapers

We advance market solutions to aggregate demand, initiate supply growth, and incubate new market affiliates and influencers.

Systems Thinkers

We design and implement systems-level interventions with diverse stakeholders to address the complexity and scale of the climate crisis.

Companies come to RMI to solve complex energy challenges.

Here's how companies can work with us:

Consulting & Insights Use RMI's data-driven insights & consulting services to solve intractable problems & implement projects

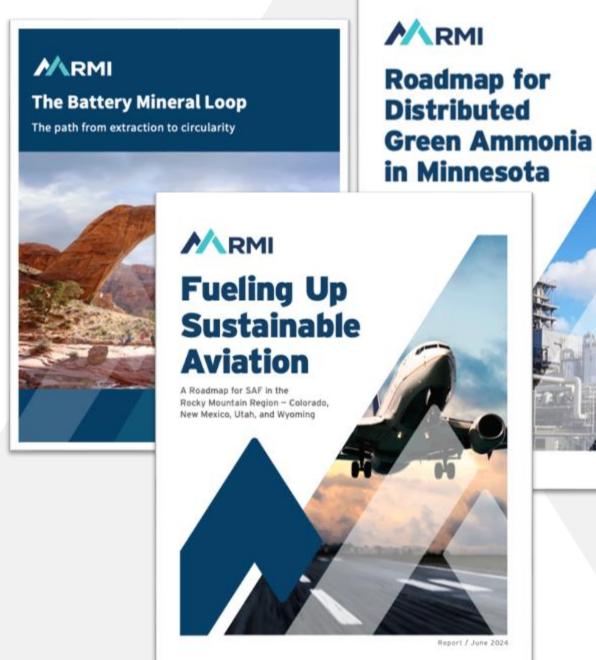
Philanthropic Partnerships

Demonstrate leadership in the energy transition by funding the systems-level impact of RMI's solutions

Market-led Collaborations

Join RMI's powerful coalitions to harness demand & transform markets for scalable climate solutions

Thought leadership that expands our sense of what's possible









Radical collaborations that move & shape markets













Philanthropic partnerships that accelerate systemslevel change



NEWS >> TRANSPORTATION >> FEDEX AND GENERAL MOTORS SUPPORT RMI RESEARCH TO ACCELERATE TRANSPORTATION...

FedEx and General Motors Support RMI Research to Accelerate Transportation Electrification

RMI has received philanthropic grants from FedEx and General Motors to accelerate the transition to a zero-carbon and equitable transportation future.



Chris Atkins
Director of Worldwide Operations
Sustainability
Amazon



Chats Gamage
Principal, Climate-Aligned
Industries
RMI





Caroline Winslow

Acceleration Strategy Manager

Third Derivative



Emma Stewart

Chief Sustainability Officer

Netflix



Erin Callahan

Corporate Engagement Director

RMI





Bonnie Lei
Principal for Carbon Markets Initiative
RMI



Meghan Edge
Head of Carbon Investments
Ripple



SURVEY: Session 1

Tell us what you think!

Please use this QR code to fill out our online survey for Session 1 – Re-Energize Corporate Action



30 minute break

10:15-10:45 a.m.

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PLEASE TAKE YOUR SEAT

The program is about to begin.

Session 2:
Re-Energize Efforts to Slash Methane



SESSION 2: Re-Energize Efforts to Slash Methane

10:45-11:45 a.m.







MODERATOR



Sarah Smith Global Methane Hub



Debbie Gordon RMI



Dan Grossman EDF



Riley Duren Carbon Mapper



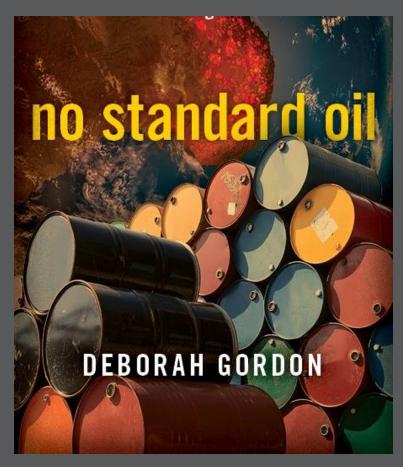


Debbie Gordon RMI





Expanding the Oil Climate Index plus Gas (OCI+)



Equivalent barrels have wide-ranging emissions intensities

Share of global assets modeled:

5% oils (2015)

25% oils (2016)

50% oil & gas (2022)

70% oil & gas (2023)

100% oil & gas (2024)

Central finding:

Using OCI+ to estimate GHGs from global assets

Models: Open-source, peer-reviewed, widely-used.

Inputs: Reservoir, operating, satellite data; field studies.

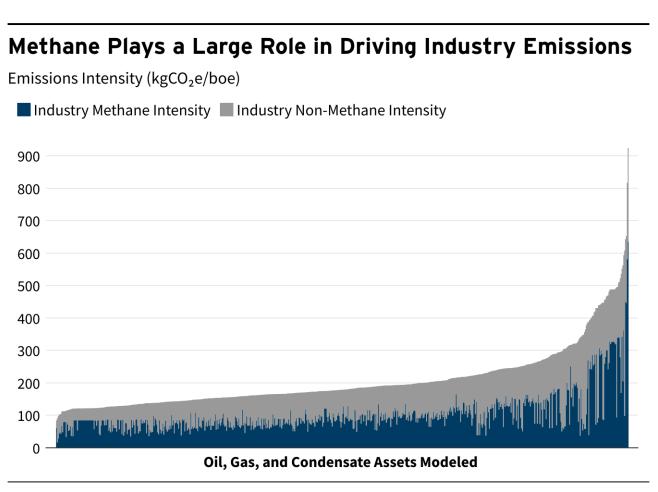
Finding: One-half O&G industry GHGs attributed to methane.

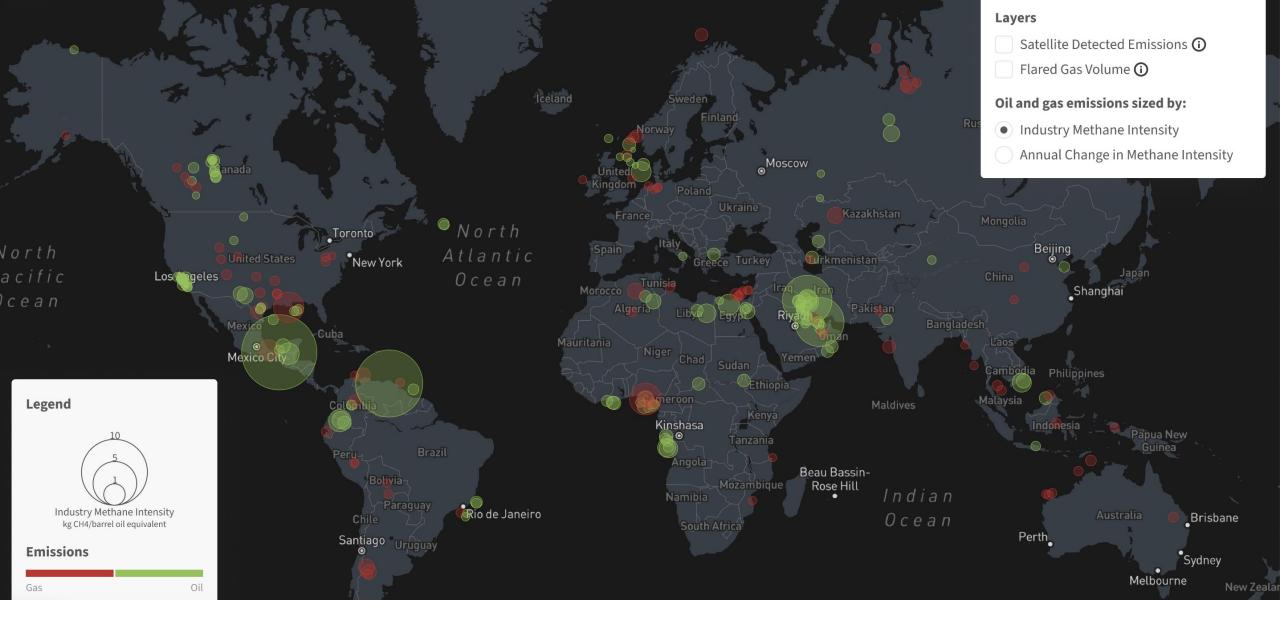


OCI+ web tool: https://ociplus.rmi.org/

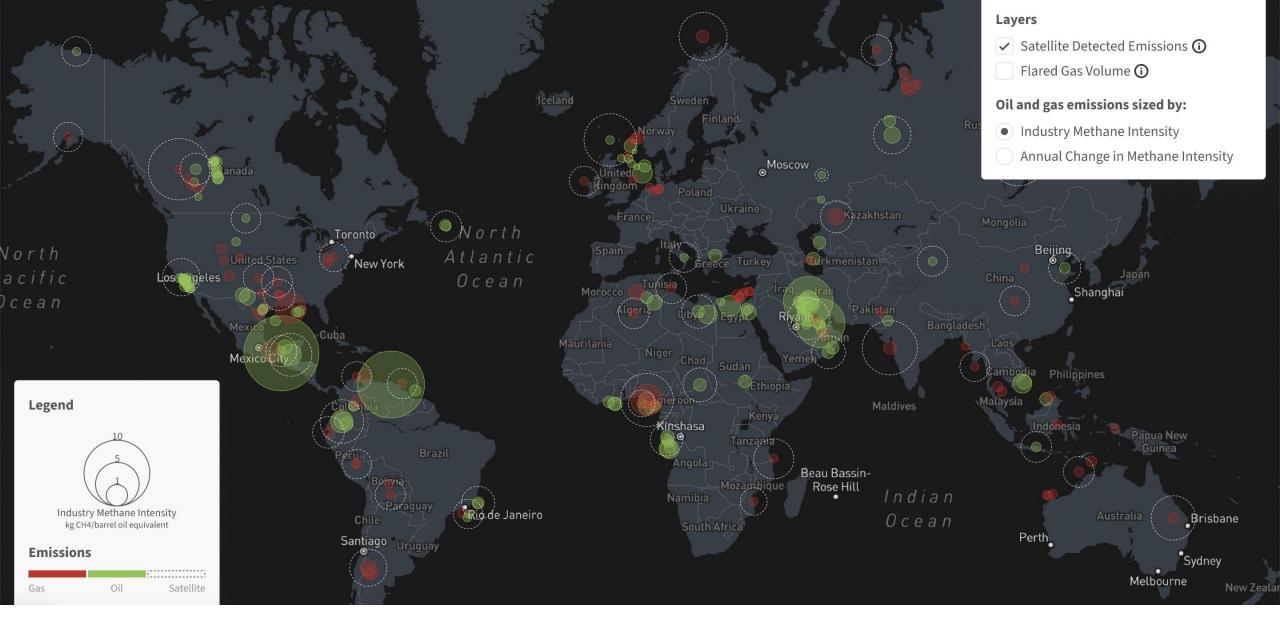
intensity from upstream production, midstream refining, and downstream

transport and end uses.





OCI+ methane intensity map (publicly-identified assets)



Methane intensity map with satellite data (mock-up)



Dan Grossman EDF



MethaneSAT Overview

Driving Down Emissions Through Data and Action

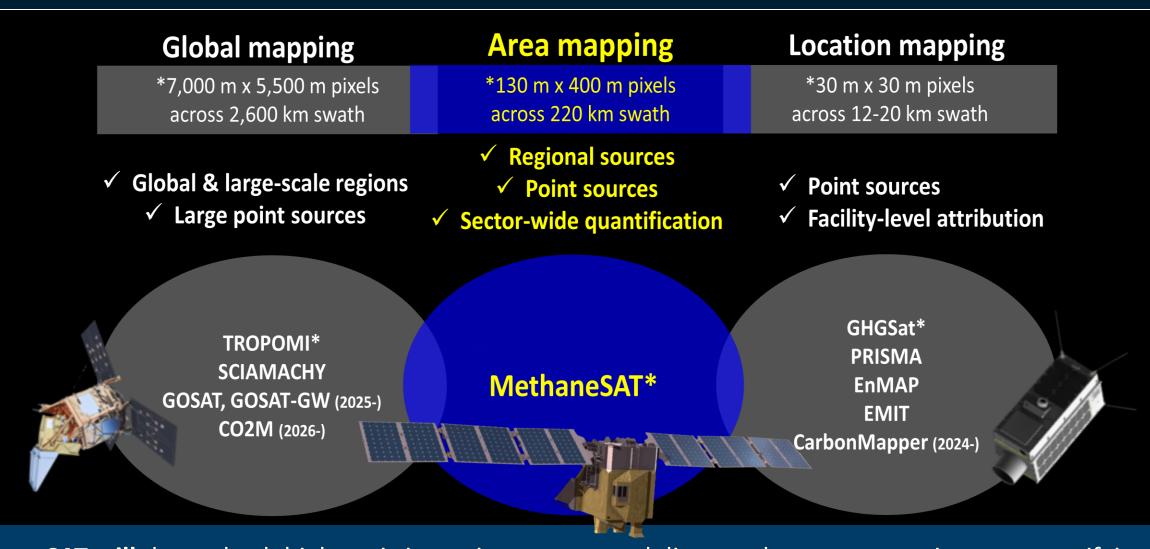
Dan Grossman Associate Vice President, Global Energy Transition Environmental Defense Fund



MethaneSAT Partners

Funding	Science and Analytics	Technology and Hardware	Data, Software and Operations			
Bezos Earth Fund	 Smithsonian Astrophysical Observatory Dr. Steve Wofsy, Harvard Environmental Defense Fund 	 BAE Systems Blue Canyon Technologies IO Aerospace Space X 	 Google New Zealand Space Agency 			

A complementary ecosystem of methane-detecting satellites, each with distinct capabilities and purpose



MethaneSAT will detect both high-emitting point sources and dispersed area sources, in turn quantifying total emissions – thus advancing the state-of-the-art and filling major data gaps globally.

Use Cases:

Enforceable Standards: US, Canada, Europe, Australia Verify compliance, identify problem areas, basins and companies

Access to Major Markets: East Asia, Europe CLEAN Initiative (Japan and Korea) and EU Import Requirements

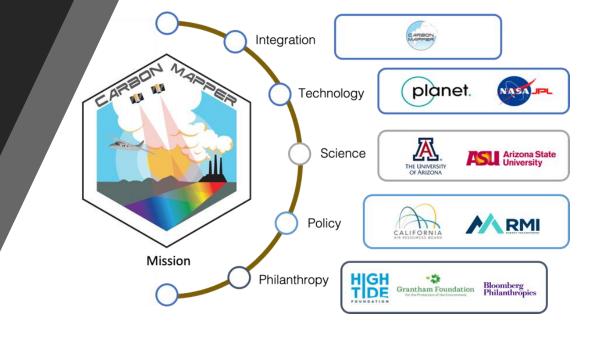
Access to Capital:

Aligning investment policies with methane performance and developing methane mitigation finance instruments



Carbon Mapper's Mission

- Carbon Mapper is a non-profit that delivers and translates actionable, localized CH₄ and CO₂ data
- Established multi-sensor data platform
- All CH₄ and CO₂ data is <u>public</u>
- Carbon Mapper also leads a public-private partnership to deploy CH₄/CO₂ satellites
- Phase 1: 2 satellites funded by philanthropy
 - first launched Aug 16
- Phase 2: goal to expand <u>constellation</u> to increase frequency & completeness
- Long-term goal: Track 90% of high emission CH₄ & CO₂ point sources

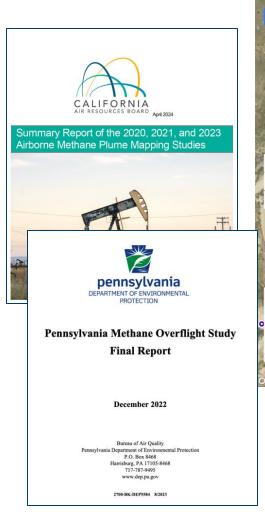


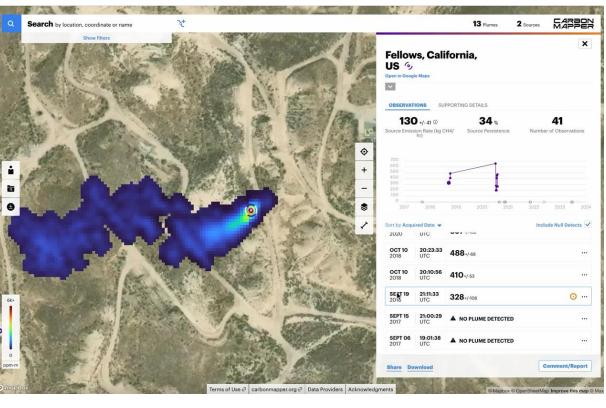




Active engagement can enable mitigation action

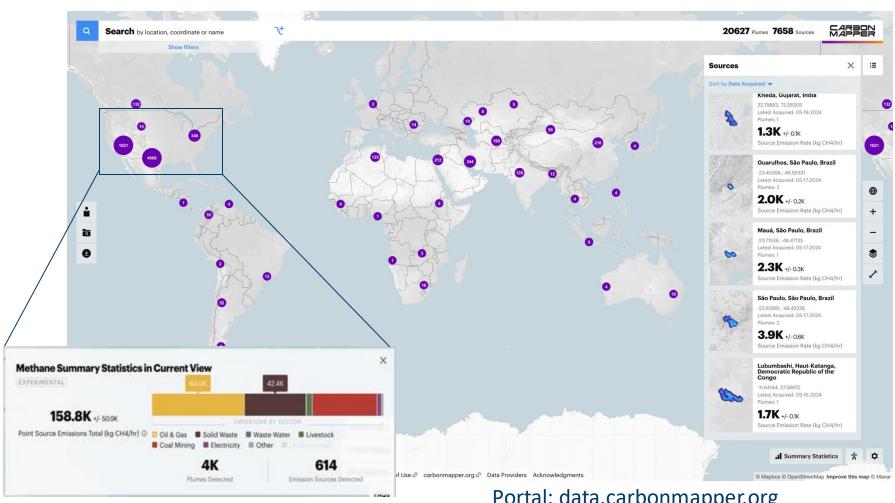
- ~10 mitigation collaborations with US regulators & operators since 2020
- Over 300 incident engagements (people talking to each other)
- Geolocation to within 30 meters;
 latency with hours to weeks
- Operator feedback: 40% of reported super-emitters previously unknown (leaks)
- Over 150 <u>voluntary</u> leak repairs
- Many verified with follow-up monitoring





3rd Party Reporting <u>works</u> when stakeholders are incentivized and engaged (looking for partners to expand internationally)

Data accessibility and transparency



- Now over 17,000 methane plumes and over 800 CO₂ plumes published -Airborne and EMIT - will grow with satellites!
- Improved plume visualizations
- Trend emission rates over time - and verify leak repairs
- Summary statistics for regional and sector-specific insights
- User-specified areas of interest
- Public API access







MODERATOR



Sarah Smith Global Methane Hub



Debbie Gordon RMI



Dan Grossman EDF



Riley Duren Carbon Mapper







Maria-Olivia Torcea
Bloomberg New Energy Finance (BNEF)









Carl Pope
Bloomberg Philanthropies





SURVEY: Session 2

Tell us what you think!

Please use this QR code to fill out our online survey for Session 2: Re-Energize Efforts to Slash Methane



LUNCH

11:45 a.m.-12:30 p.m.

If you are not planning on staying for the next session, please exit down the elevator or stairs to make room for waiting audience members.



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2:00-3:00 p.m. SESSION 4: Re-Energize the Conversation



Session 3

12:30-1:30 p.m.

If you are not planning on staying for the next session, please exit down the elevator or stairs to make room for waiting audience members.



PLEASE TAKE YOUR SEAT

The program is about to begin.

Session 3:

Re-Energize Communities



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SESSION 3: Re-Energize Communities

12:30-1:30 p.m.



MODERATOR



Amena Saiyid
Washington D.C Correspondent
Cipher
CipherNews.com



Jonathan Smith
Senior Chief Deputy Director
Michigan Department of Labor
and Economic Opportunity



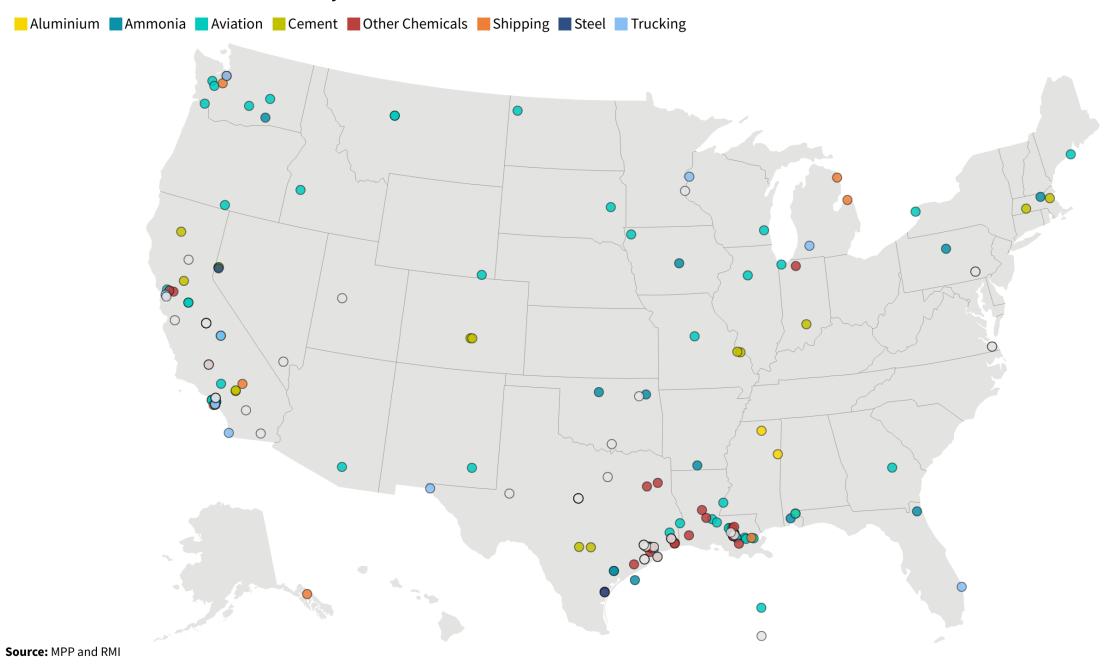
Bryan Fisher
Managing Director
RMI



Jacob Corvidae
Senior Principal
RMI



Announced Clean Industrial Projects in the United States

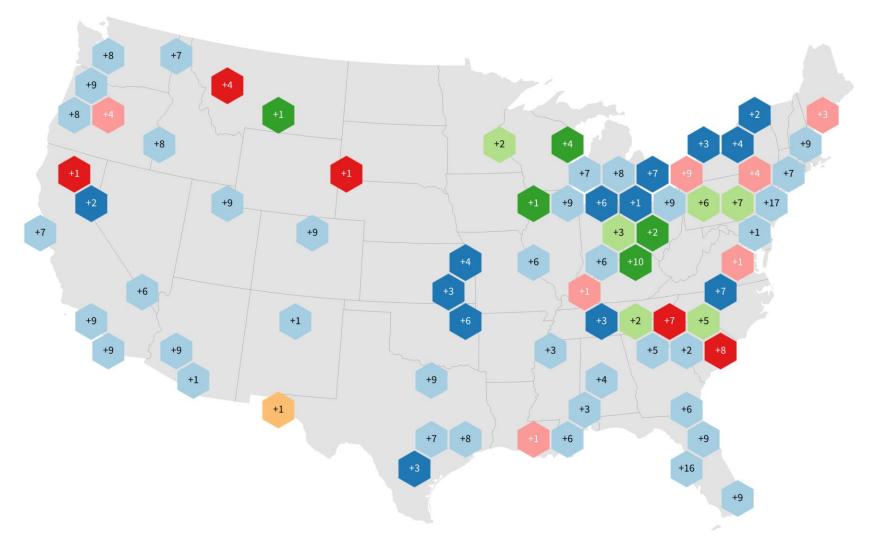


Where in the United States could cleantech manufacturing thrive?

This map highlights the regions that score in the top 25% in feasibility (at or above the 75th percentile) for different clean energy manufacturing industries as categorized in the Clean Growth Tool, out of 179 Economic Areas (EAs) considered nationally.

Clean Energy / Energy Transition Industry





Feasibility, a function of an area's existing economic capabilities (e.g. workforce composition) in related sectors, is highly predictive of an industry's ability to thrive in a given location. It does not predict short-term investment. Additionally, this map uses the anchor cities in each Economic Area (EA) as reference points for each region, and as such does not illustrate the territory covered by each EA. For example, the Salt Lake City-Odgen-Clearfield EA encompasses most of Utah, but Salt Lake City is the reference point here.

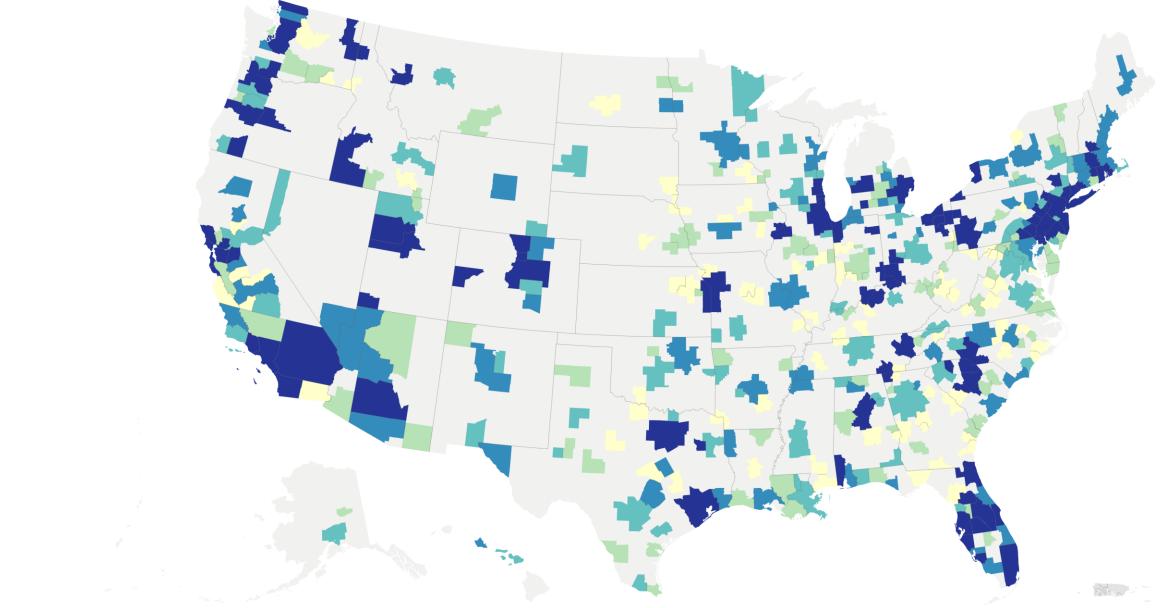


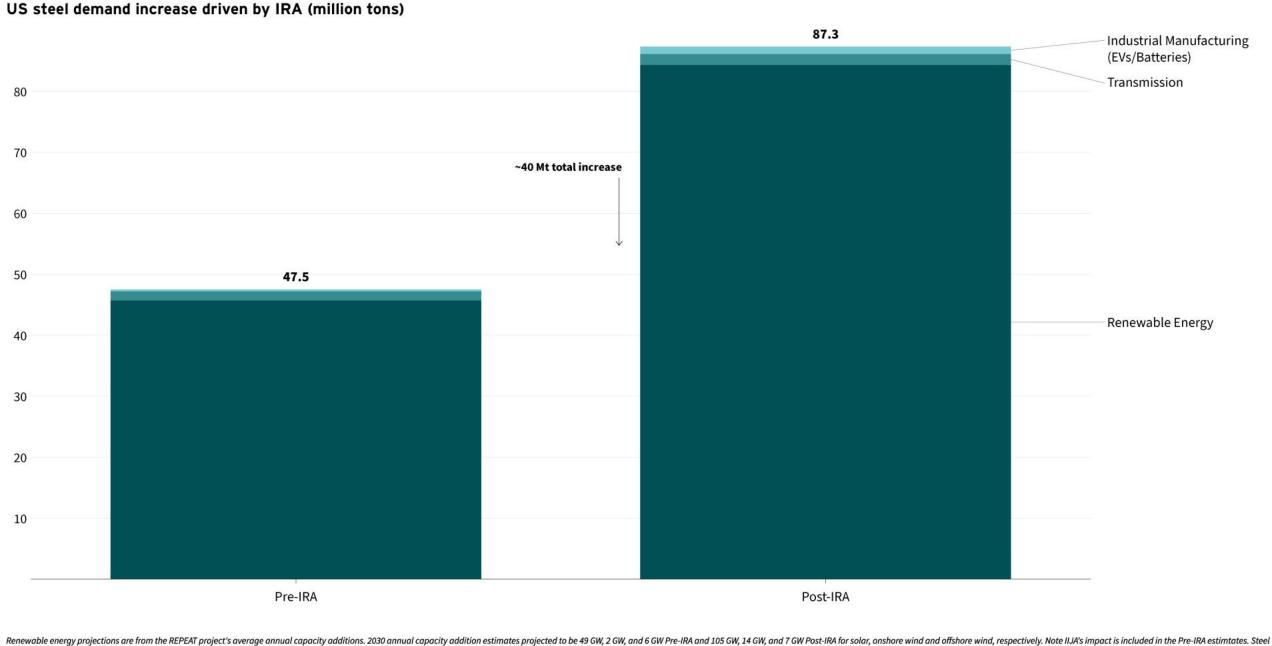


Metro-Area Industry Feasibility: Low-Carbon Iron & Steel



20



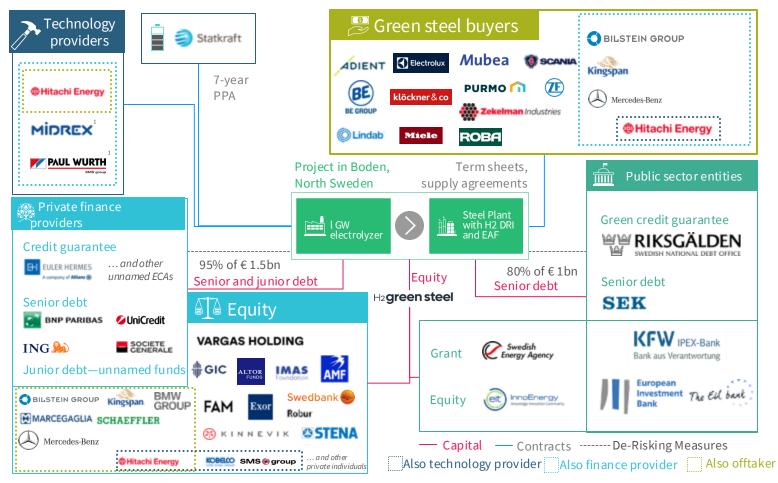


intensity (per MW) for each technology is assumed to be 62 t/MW, 122 t/MW, and 723 t/MW for solar, onshore wind, respectively.

Source: RMI Analysis; public project announcements; REPEAT Project Preliminary Report: The Climate and Energy Impacts of the Inflation Reduction Act, Princeton University Zero Lab (2022); NERC Electricity Supply & Demand Transmission Projects; Atlas EV Hub Investment Analysis; "Effects of Renewable Energy Provisions of the Inflation Reduction Act on Technology Costs, Materials Demand, and Labor"

H2 Green Steel's Capital Structure for FOAK Industrial Decarbonization Project

Industry/Corporates

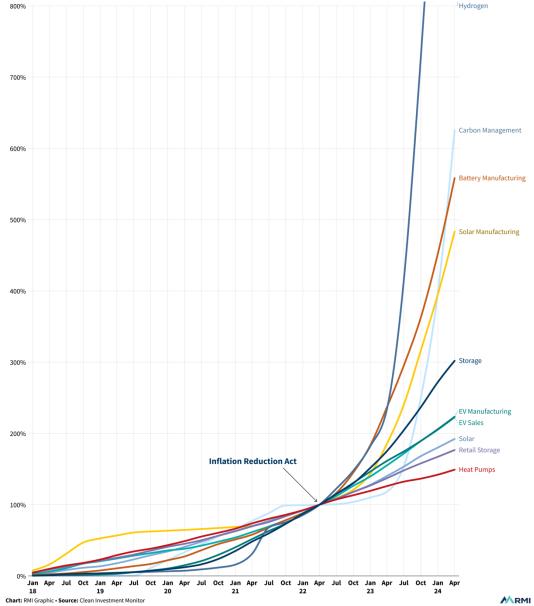


- Complex capital stack that involves several forms of "non-traditional" funding
- Large and diverse syndicate with creative risk sharing mechanisms
- Captured and concentrated demand from several parties interested in deal exposure beyond individual project cashflows



Clean Energy Investment Growth Since 2018

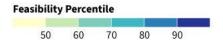
Growth in cumulative investment since 2018, indexed to Q2-2022. 2022-Q2 = 100.



Cleantech Manufacturing Feasibility in Select Economic Areas (EAs)

These are some of the regions that earn high feasibility scores in RMI's Clean Growth Tool for transitioning into multiple clean energy technology manufacturing industries. Feasibility is a function of the overlap between a region's existing economic capabilities and the characteristics of a potential new industry. This metric is highly predictive of an industry's ability to thrive in a given location.

Feasibility percentile here is relative to the 179 regions considered in the Clean Growth Tool's 'Economic Area' filter.



S Ga	Atlanta- Sandy Springs- sainesville, GA-AL	Birmingham- Hoover- Cullman, AL	Boise City- Nampa, ID	Boston- Worcester- Manchester, MA-NH	Chicago- Naperville- Michigan City, IL-IN-WI	Cleveland- Akron- Elyria, OH	Detroit- Warren- Flint, MI	Greensboro Winston- SalemHigh Point, NC	Houston- Baytown- Huntsville, TX	Louisville- Elizabethtown- Scottsburg, KY-IN	Milwaukee- Racine- Waukesha, WI	Minneapolis- St. Paul-St. Cloud, MN-WI	Philadelphia- Camden- Vineland, PA- NJ-DE-MD	Phoenix- Mesa- Scottsdale, AZ	Salt Lake City-Ogden- Clearfield, UT	Tulsa- Bartlesville, OK
Batteries & Components	78	91	84	91	99	87		64	97	89	96		95	98	82	47
Electric Vehicles		62	58	92	99	89	94			98	56	65	91	85	99	97
Energy Transmission Equipment			90	93	100	96	87	79	92	45	95	87	96	97	98	85
Heat Pumps	70	75	87	81	91	95	56	72	100	94	68	55	93	97	99	96
Low-Carbon Iron & Steel	71	87	95	84	98	99	93	79	94	52	92		96	91	83	73
Solar Energy Components	95	55	96	92	97	86	85	94	93	89	84	97	92	99	89	93
Wind Energy Components	81	75	92	91	98	97	84	59	99	80	90	73	95	97	93	79

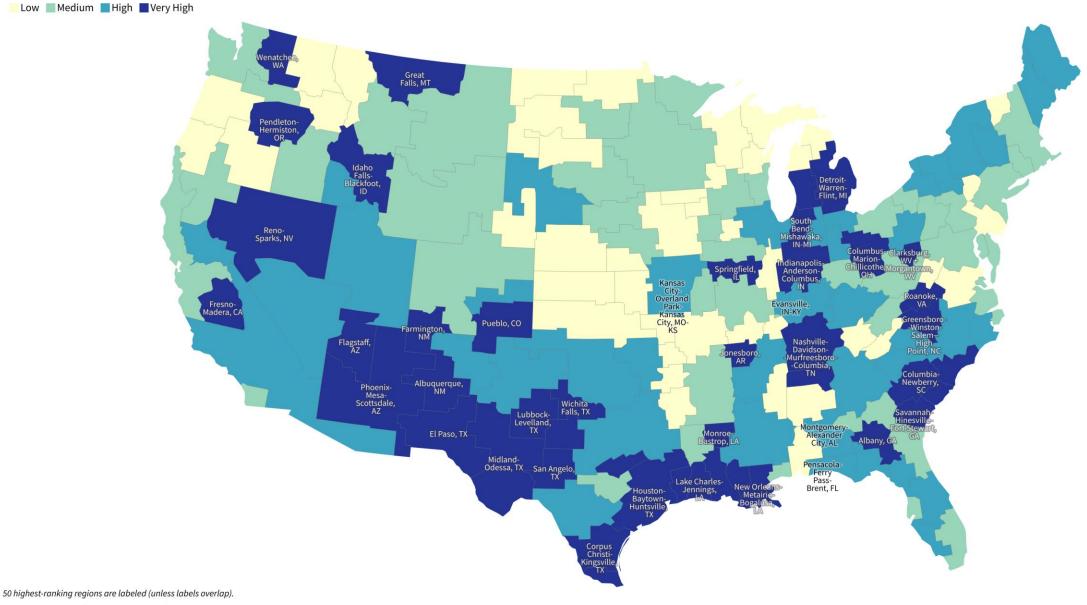
Feasibility is a long-term economic development metric; it does not account for near-term drivers of investment.

'Energy Transmission Equipment' includes technologies such as EV chargers, inverters, and transformers.

Clean Energy Investments Are Benefitting Almost Every US Region

Almost every region of the country has seen major new clean energy, industry, or manufacturing project announcements over 2022 - 2024 Q1.







MODERATOR



Amena Saiyid
Washington D.C Correspondent
Cipher
CipherNews.com



Jonathan Smith
Senior Chief Deputy Director
Michigan Department of Labor
and Economic Opportunity



Bryan Fisher
Managing Director
RMI



Jacob Corvidae
Senior Principal
RMI



SURVEY: Session 3

Tell us what you think!

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30 minute break

1:30-2:00 p.m.

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SESSION 4: Re-Energize the Conversation

2:00-3:00 p.m.



MODERATORS



Dina Cappiello

Chief Communications Officer RMI



James Lawler

Founder

Climate Now





Kingsmill Bond
Senior Energy Expert
RMI



Aaron Denman

Partner

Bain & Company



Research & Analysis by Kingsmill Bond, RMI

Please use this QR code to access the body of work authored by Kingsmill Bond and RMI's research and analysis team:

"The World, Re-Energized"



Research by Bain & Company

Please use this QR code to access the body of work authored by Bain & Company:

"Reality Check: Energy and Natural Resource Executive Pulse 2024"





Kingsmill Bond
Senior Energy Expert
RMI



Aaron Denman

Partner

Bain & Company





SURVEY: Session 4

Tell us what you think!

Please use this QR code to fill out our online survey for SESSION 4: Re-Energize the Conversation



