April 2026

OpenMinds

Accelerating Energy and Climate Progress

OpenMinds

DISCUSSION AGENDA

01	02	03
An Introduction to OpenMinds	The "Dual Challenge" and Our Solutions	OpenMinds' Impact Strategy and Key Initiatives

OpenMinds

OUR MISSION

More energy. Less emissions. Fast.

- 125+ volunteer experts
- 501(c)(3)
- Disciplined non-partisan selection process
- 360° systems engineering approach

WHAT MAKES US UNIQUE

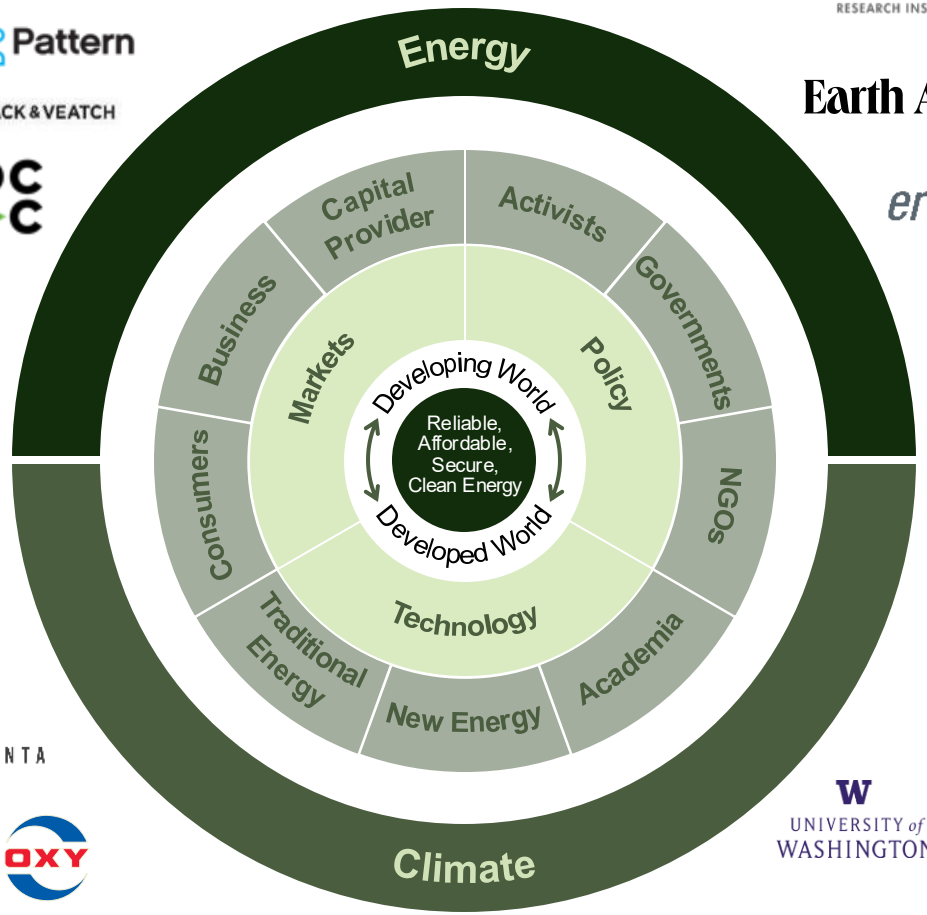
Energy AND climate

Cross-functional expert team

Data-driven solutions framework

Impact progress by 203X

The OpenMinds Network



OpenMinds Experts

Industry	Role and company
Mr. Alan Armstrong	Executive Chair, Williams
Mr. John Arnold	Founder & Co-Chair, Arnold Ventures
Mr. James Baird	Founder & Co-CEO, Vertex Power
Ms. Maire Baldwin	Board Director, Permian Resources
Mr. Scott Brown	Chairman, New Energy Capital
Dr. Barbara J. Burger	Corporate Graduate, Energy Director, Advisor and Innovator
Mr. Adrian Corless	CEO, CarbonCapture
Mr. Ted Craver	Former Chair, President, & CEO, Edison International
Mr. Michael DeBock	Vice President of Origination, NextEra Energy
Dr. Aart de Geus	Executive Chair & Founder, Synopsys
Ms. Jayshree Desai	CFO, Quanta Services, Inc.
Ms. Keila Diamond	Managing Director/Head of ESG, Quantum Energy Partners
Ms. Jillian Evanko	President, CEO & Director, Chart Industries
Mr. Bob Flexon	CEO, UGI Corporation
Mr. Jason Glickman	EVP Engineering, Planning & Strategy, PG&E
Mr. Jon Goldberg	Founder and CEO, Carbon Direct
Mr. Peter Guarraia	Senior Managing Director, Blackstone
Mr. Rodi Guidero	Executive Director, Breakthrough Energy
Mr. Greg Hall	EVP & Chief Commercial Officer, AEP
Mr. Thad Hill	Executive Chairman, Calpine
Ms. Vicki Hollub	President & CEO, Oxy
Ms. Phoebe Ho-Stone	CCS Dev Planner, ExxonMobil Low Carbon Solutions
Mr. Lon Huber	SVP, Chief Planning Officer, Xcel Energy
Ms. Alice Jackson	VP Grids, Breakthrough Energy
Mr. Aaron Jagdfeld	CEO, Generac Power Systems
Mr. Mateo Jaramillo	Co-Founder & CEO, Form Energy
Mr. Andy Karsner	Senior Strategist, Google X
Mr. Fred Kittler	Co-Founder and Managing Director, Firelake Capital Mgmt.
Mr. Sanjeev Krishnan	Chief Investment Officer & Senior Managing Director, S2G
Mr. Tim Latimer	Co-Founder & CEO, Fervo Energy
Mr. Steve Lockard	Operating Partners, SCF Partners
Mr. Thomas McAndrew	Founder & CEO, Enchanted Rock
Mr. Jeff McDermott	McDermott Capital
Dr. Shannon Miller	Founder & CEO, Mainspring Energy
Mr. Stan Miranda	Founder & Chairman, True North Institute
Mr. Jim Murphy	President & Co-Founder, Invenergy
Mr. Nate Nickerson	Comms and Public Affairs Partner, DCVC
Ms. Lara Poloni	President, AECOM
Ms. Rachael Porter	CMO, Oxy
Mr. Miguel Prado	CEO, energyRe
Ms. Heather Redman	Co-Founder & Managing Partner, Flying Fish Partners

Industry	Role and company
Mr. Crosby Scofield	Partner, Vinson & Elkins
Ms. Starlee Sykes	CEO, Archaea Energy at BP
Mr. Dan Tishman	Chairman/Principal, Tishman Realty & Construction
Mr. Ignacio Torras	President & CEO, Tricon
Ms. Jessica Uhl	President, GE Vernova
Mr. Al Vickers	COO, Grid United
Mr. Andy Waite	Managing Partner - SCF Partners
Mr. Daniel Weiss	Co-Founder & Managing Partner, Angeleno Group
Mr. Jason Wells	President & CEO, CenterPoint Energy
Mr. Darryl Willis	Corporate VP of Energy & Resources, Microsoft
Dr. Mike Witt	Chief EES Officer, Northrop Grumman

Academia	Role and Company
Dr. Steven Barrett	Regius Prof. of Engineering, Cambridge University
Dr. Naomi Boness	Managing Director, Stanford Natural Gas Initiative
Dr. Reginald DesRoches	President, Rice University
Dr. Neil Fromer	ED Programs, Resnick Sust. Institute, Caltech
Mr. Sam Hall	MBA Graduate, MIT Sloan School of Management
Mr. Britt Harris	Former CEO & CIO, UTIMCO
Dr. Robert Johnston	Director Energy & Natural Resources, University of Calgary
Mr. Ira Joseph	Global Fellow CGEP, Columbia University
Dr. Daniela Marin	PhD Graduate, Stanford University
Dr. Kenneth Medlock III	Senior Director, Center for Energy Studies at Rice University's Baker Institute
Dr. Dava Newman	Director, MIT Media Lab
Dr. Jonas Peters	Director, Resnick Sustainability Institute, Caltech
Dr. Minoo Rathnasabapathy	Research Lead, Future Worlds, MIT Media Lab
Mr. Dan Reicher	Senior Research Scholar, Stanford Woods Institute for the Environment
Dr. Peter Schlosser	Vice President - Global Futures Initiative Vice Provost - Arizona State University
Mr. Ben Soltoff	Ecosystem-Builder/Entrepreneur in Residence, MIT's Martin Trust Center for Entrepreneurship
Dr. Scott Tinker	Director, Bureau of Economic Geology, University of Texas
Dr. Maya Tolstoy	Professor, Columbia University

Policy / Influence	Role and Company
Mr. Benji Backer	Founder & CEO, Nature is Nonpartisan
Mr. Jason Bordoff	Prof. & Founding Director, CGEP, Columbia University
Mr. Jason Corzine	President & CEO, Telluride Foundation
Mr. David Crane	Undersecretary for infrastructure, U.S. DOE
Mr. Ani Dasgupta	CEO, WRI
Mr. Rob Gramlich	President, Grid Strategies
Mr. Hal Harvey	Founder, Energy Innovation
Mr. Mac Heller	Documentary Film Producer
Mr. John Hickenlooper	Former Governor and Current US Senator, State of Colorado
Mr. Joe Kennedy III	President, Citizens Energy
Mr. Rob Shepardson	Co-Founder, SS+K
Mr. Lenny Stern	Co-Founder, SS+K

NGO	Role and Company
Dr. Doug Arent	Executive Director, NREL
Mr. Armond Cohen	Executive Director, Clean Air Task Force
Ms. Myrtle Dawes	CEO, Net Zero Technology Centre
Mr. Jason Grumet	CEO, American Clean Power Association (ACP)
Ms. Jennifer Layke	Executive Director, ACEEE
Ms. Amanda Leland	Executive Director, Environmental Defense Fund
Mr. Paul Major	Board Member & Manager, Paradox Community Trust
Mr. David Porter	VP Electrification, EPRI

NGO *(cont.)*	Role and Company
Dr. Lara Pierpoint	Director of Early Climate Infrastructure, Prime Coalition
Mr. David Pruner	Executive Director, TEX-E
Mr. Larry Selzer	President & CEO, The Conservation Fund
Dr. Cyrus Wadia	CEO, Activate
Mr. Brady Walkinshaw	Founder & Publisher, Noisy Creek
Mr. Kurt Waltzer	Principal, Energy Systems Innovation Consulting
Mr. Pablo Vegas	CEO, ERCOT

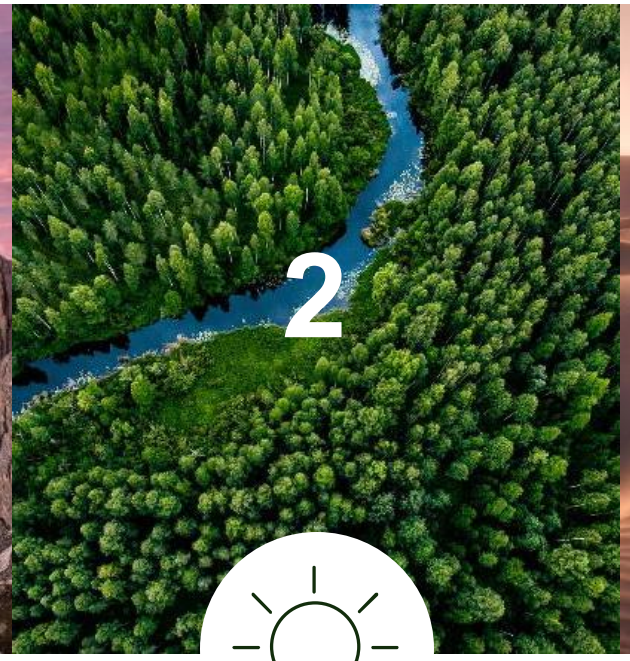
Bain Collaborators	Role and Company
Mr. Tyler Clark	Associate Partner, Bain & Company
Mr. Julian Critchlow	Advisory Partner, Bain & Company
Ms. Emily Emmett	Partner, Bain & Company
Mr. Preston Henske	Partner, Bain & Company
Ms. Cate Hight	Partner, Bain & Company
Ms. Dianne Ledingham	Advisory Partner, Bain & Company
Mr. Joseph Scalise	Partner, Head of Global Energy & Natural Resources Practice, Bain & Company
Ms. Erika Serow	Partner and CMO, Bain & Company
Ms. Jessica Solera	Partner, Bain & Company
Ms. Clementien Valk-Fabels	Associate Partner, Bain & Company
Mr. Joel Mann	Senior Manager, Bain & Company
Mr. Rahul Gupta	Partner, Bain & Company

… and many more

OpenMinds: History & Focus

2022 – Define

More energy.
Less emissions.
By 203X.



2023 – Solve

Data-driven
Solutions pathway.
Cost, speed, scale.

2024 – Impact

Initial Impact Projects.
Removing bottlenecks.

2025 – Focus

Grid Vision.
NextGen.
Communication.

OpenMinds

Mission

More energy, less emissions – fast.

Goals

Unite
key current & future global leaders on the need to solve for affordable energy access while quickly reducing emissions

Accelerate
progress with a practical solutions pathway and develop key initiatives to remove bottlenecks

Impact Levers

Communicate to Drive Targeted Action and Highlight Progress

- **Align Existing Leaders**
- **Develop Future Leaders**
- **Design Solutions Pathways**
- **Lead Impact Projects**

Top 10 Solutions

- **Abate Methane**
- **Renewables**
- **Coal-to-X Switching**
- **CCUS in Electricity and Industry**
- **Transportation Energy Efficiency**
- **Industrial Efficiency and Electrification**
- **Electric LDVs**
- **Heat Pumps**
- **New and Existing Nuclear**
- **Buildings Efficiency**

The OpenMinds Team

Founders & Staff

David Baldwin
Co-Founder
- *Partner, SCF Partners*
- *Shale Entrepreneur*

Jeff Katz
Co-Founder
- *Founding CEO, Orbitz*
- *CEO, Swissair*

Steve Lockard
Managing Director
- *Operating Partner, SCF Partners*
- *President & CEO, TPI Composites*

Francis Slingsby
Chief Operating Officer
- *SVP, Energy Transition, The Conservation Fund*
- *COO Ørsted North America*

Will Bernholz
Director, Comms
- *Principal, MCE*
- *VP Communications, 8 Rives*

Kristin Barbato
Director, NextGen
- *Co-Founder, Dynamo Energy Hub*
- *Utilities Executive, Con Edison, NYPA*

Mara Abbott
Chief of Staff
- *Oil & Gas Senior Manager, Ceres*
- *Energy & Natural Resources Journalist*

Board Members

Dan Tishman
Chairman & Principal, Tishman Realty & Construction

Aart de Geus
Executive Chair & Founder, Synopsys

Jessica Uhl
President, GE Vernova
CFO/EVP, Shell

Committee Leadership

NextGen

Tom O'Toole
Executive Director, Kellogg Exec. Fellows, Northwestern
- *CMO & President, MileagePlus, United Airlines*
- *CMO, Hyatt Hotels*

Communications

Nate Nickerson
Comms & Public Affairs Partner, DCVC
- *VP for Comms, MIT*
- *VP for Comms, Yale*

Collaboration with Complementary Strengths

OpenMinds:

- Network of key energy & climate leaders
- Driving focused collaboration
- 203X impact

Bain:

- Global scale & deep industry expertise
- Advanced analysis and innovation capabilities
- Transformative change

OpenMinds

BAIN & COMPANY

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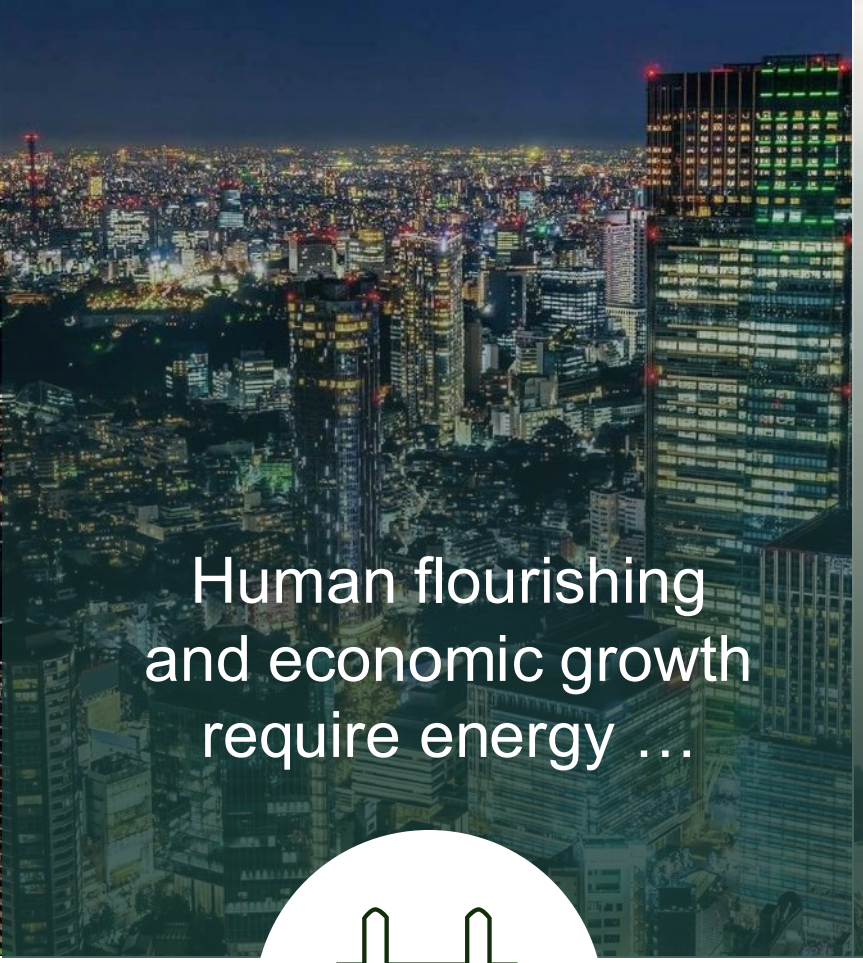
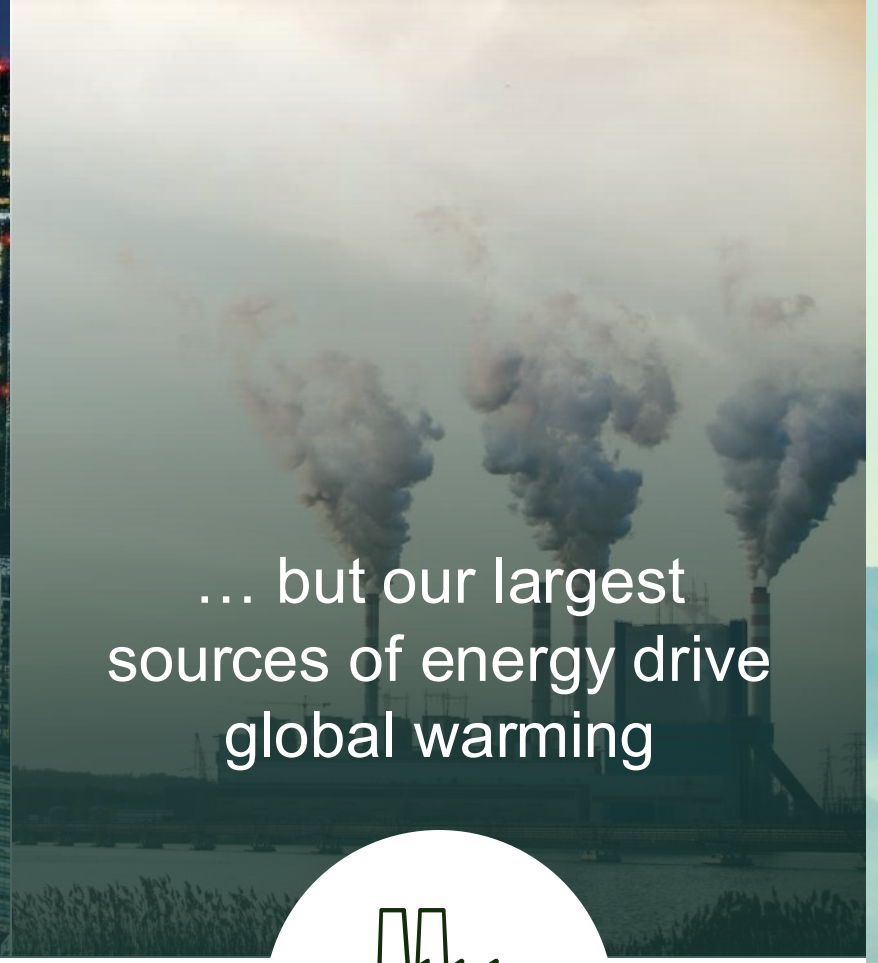


Human flourishing and economic growth require energy …



… but our largest sources of energy drive global warming

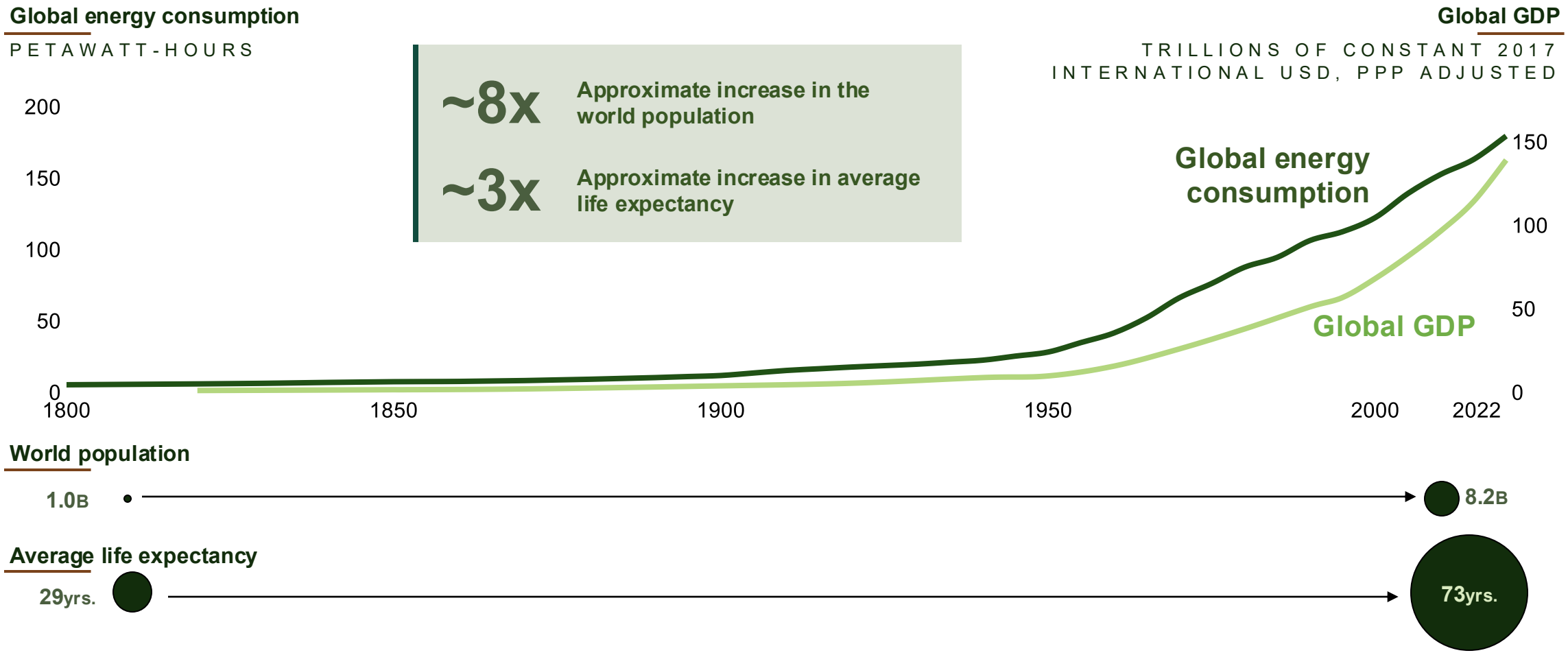
This is the Dual Challenge

More energy

+

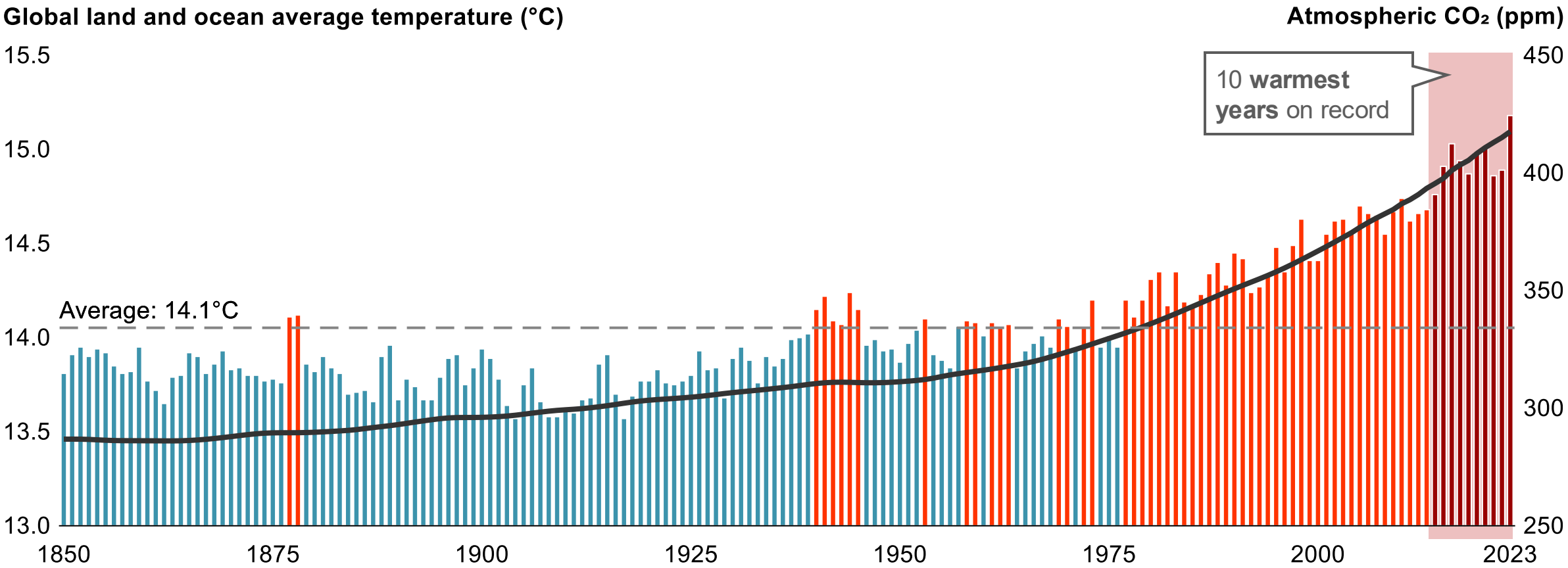
Less emissions

Energy Drives Human Well-Being and Longevity



Note: GDP is adjusted for purchasing power parity. Sources: BP Statistical Review of World Energy 2021; Vaclav Smil, *Energy Transitions: Global and National Perspectives,* 2017; Maddison Project Database, version 2020. Bolt, Jutta and Jan Luiten van Zanden (2020), "Maddison style estimates of the evolution of the world economy. A new 2020 update"; World Bank; Our World in Data

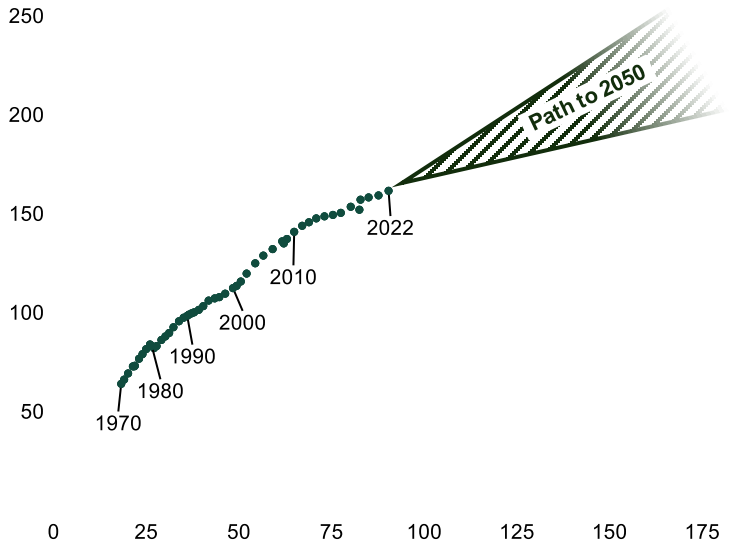
Emissions Have Led to Increased Warming



Our Dual Challenge

Energy Will Grow

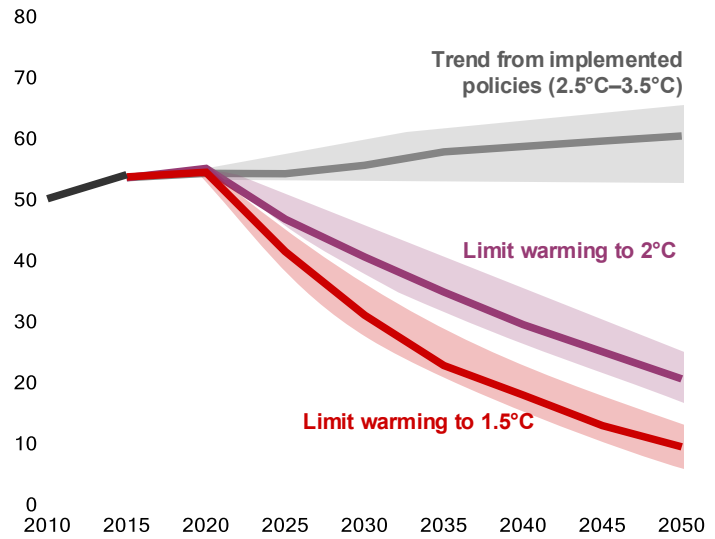
Global primary energy demand
(petawatt-hours)



Global GDP
(trillions of constant 2015 USD)

Emissions Must Decline

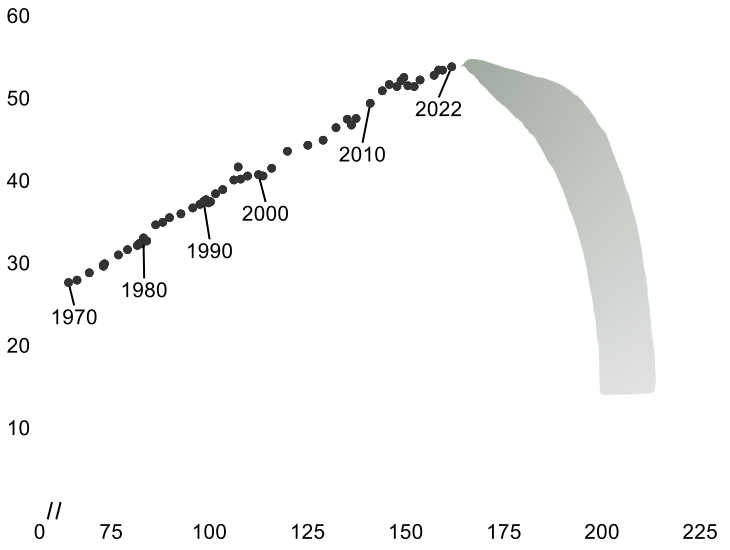
Global annual greenhouse gas emissions
(gigatons of CO_2-equivalent)



Year

The Dual Challenge

Global CO_2e emissions
(gigatons of CO_2e)

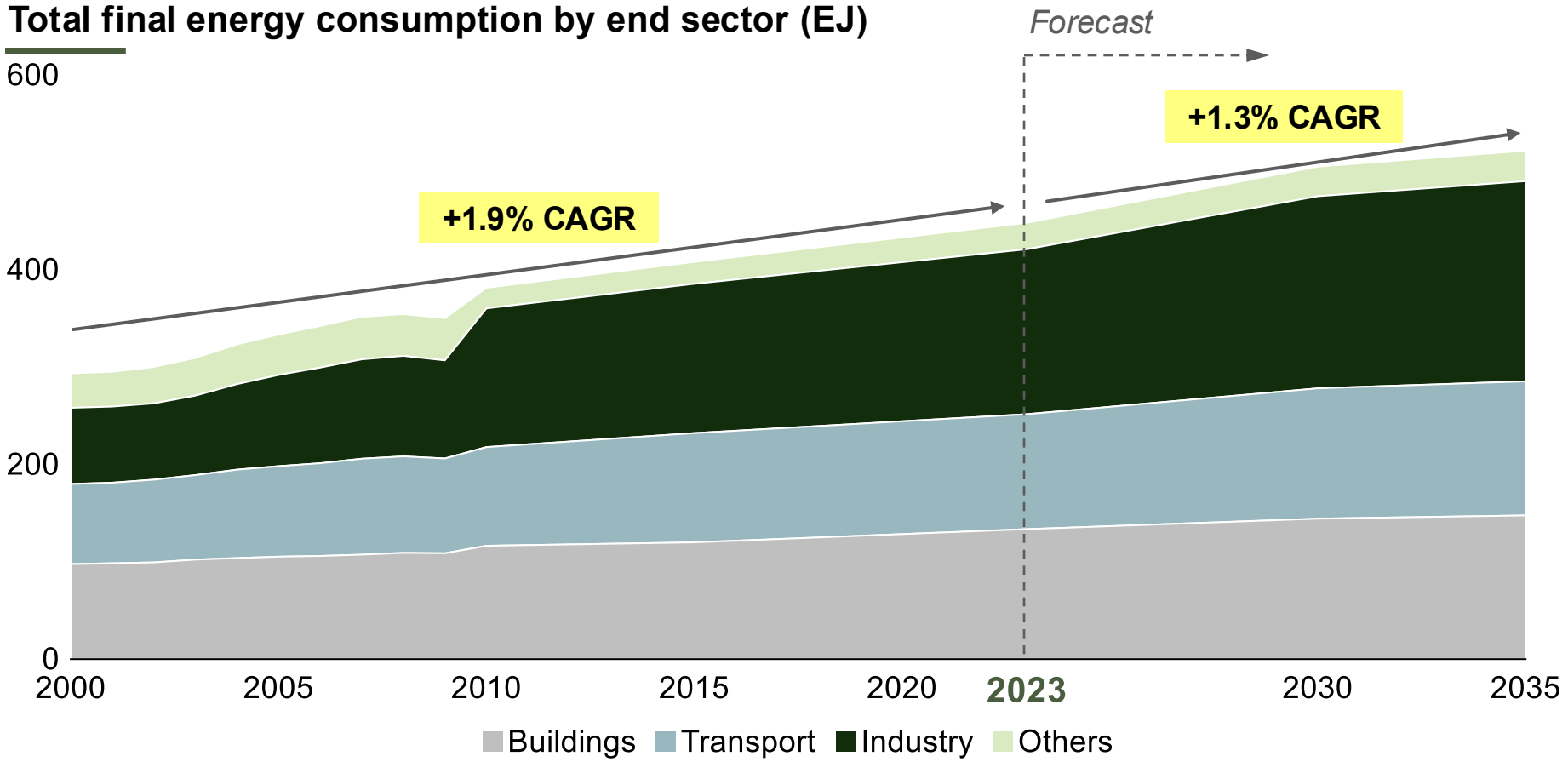


Global Primary Energy Demand
(petawatt-hours)

Note: Warming figures in middle-side emissions chart are relative to the preindustrial period and reflect projected warming level by 2100 in each scenario; bold lines in emissions chart represent median estimate, and shaded regions reflect a range from the 25th to 75th percentile. Emissions in right-side chart reflect global CO_2 emissions inclusive of land use change. Sources: IPCC, Sixth Assessment Report; World Bank; Our World in Data

Our Trajectory: Global Energy Demand Will Continue to Grow

Total final energy consumption by end sector (EJ)



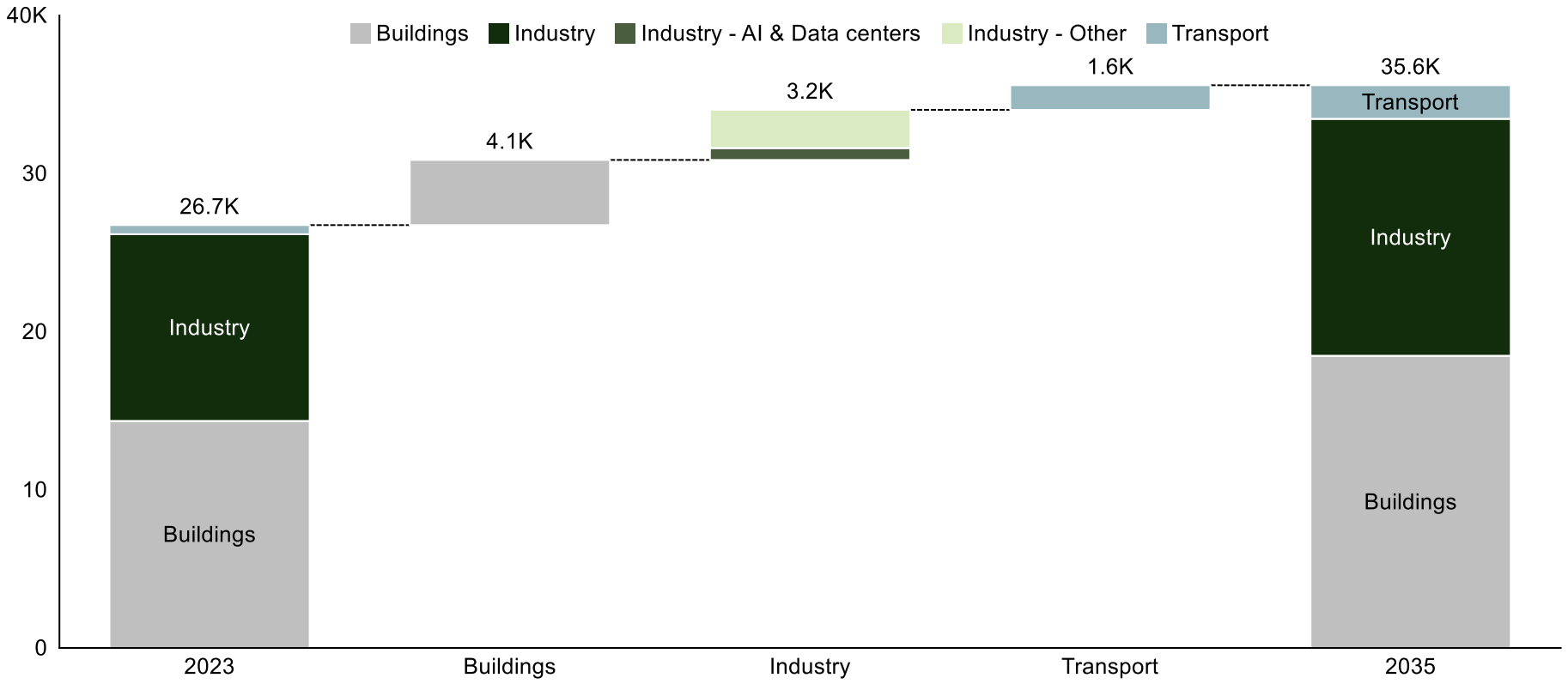
Outlook through 2035

+17% growth

- Driven by **developing economies**
- With **largest share from industry**
- Partially offset by **reduced energy intensity**

Electricity is Growing Even Faster Than Primary Energy

Global electricity demand (TWh)



Outlook through 2035

+35% growth

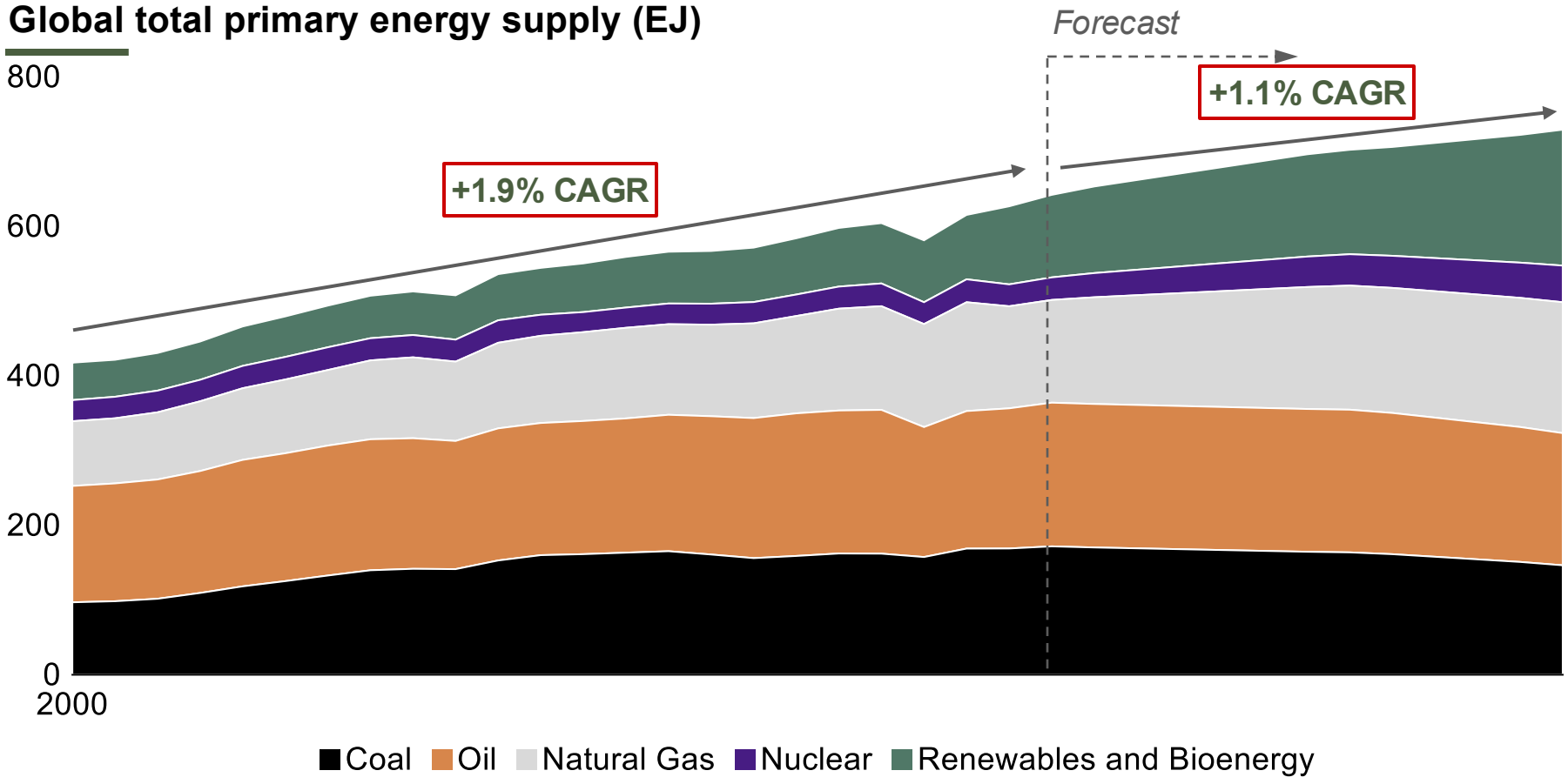
Sources of growth:

- ~45% from **HVAC**
- ~25% from **industrial processes**
- ~20% from more **EVs**
- ~10% from **data centers**

Global Energy Supply Mix is Shifting

PRELIMINARY

Global total primary energy supply (EJ)



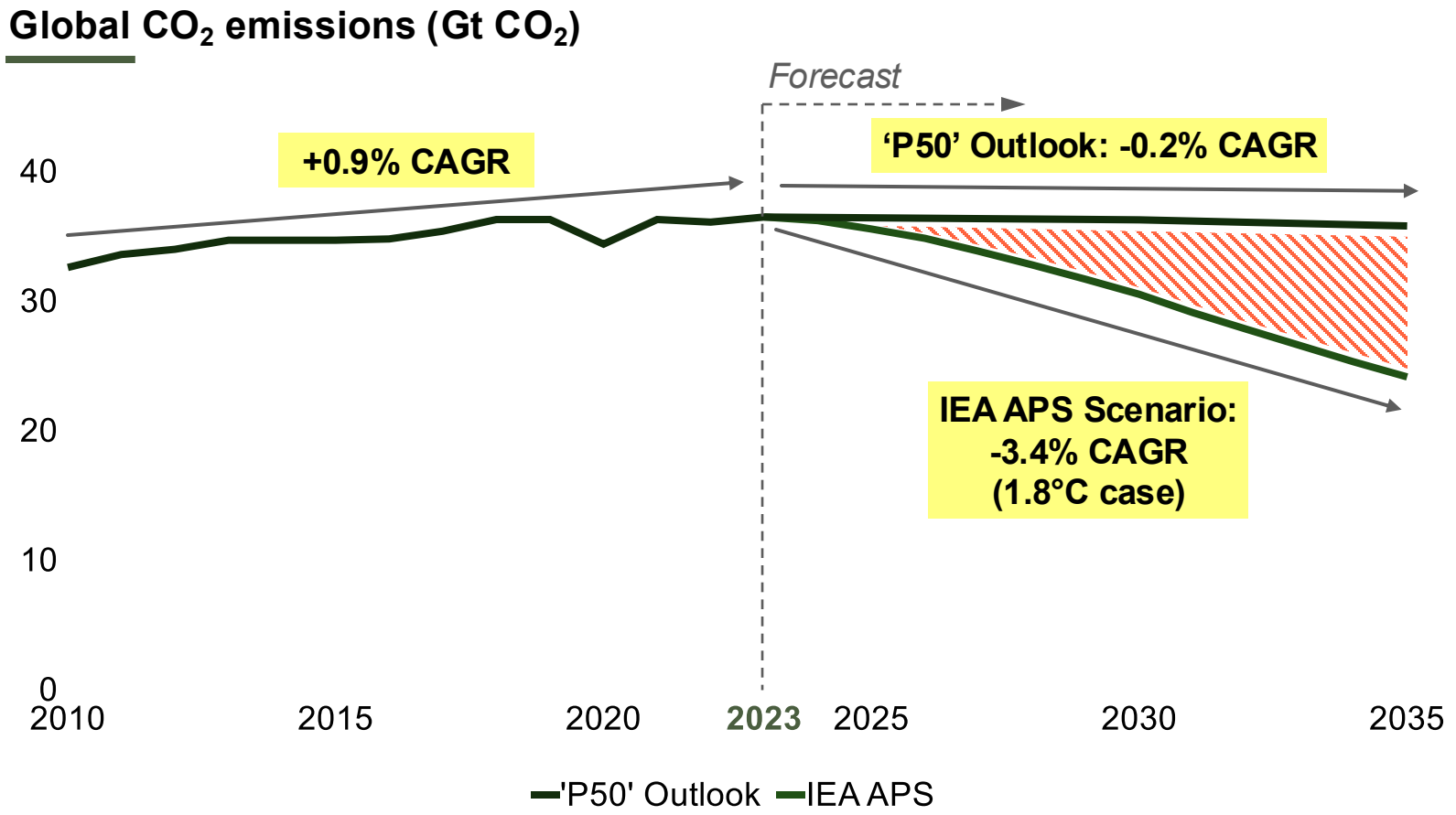
Outlook through 2035

~14% growth

- …as **renewables surge to ~25% of energy mix**
- ...while **oil peaks in 2030** and **natural gas share makes modest gains**
- …partially offset by high conversion **efficiency of renewable sources**

Source: Intersect$_{SM}$ Carbon & Energy Transition CGE Model; IEA WEO 2024

We're Bending the Emissions Curve, Yet Face a Big Gap



Through 2035

~66Gt

Emissions gap between 'P50' Outlook & 1.8°C scenario

-14%

Total reductions to stay on track

2.5-3.0°C

Implied temperature increase

Our Solutions Approach

1 Where are emissions coming from?

Understand energy sources, consumption patterns, and emissions to spot crucial action areas

2 What are the tradeoffs of each solution?

Identify and systematically evaluate a long list of potential technical solutions

3 What is the most efficient pathway?

Identify the solutions with the highest potential for impact through 203X

4 How do we drive impact globally?

Assess solution feasibility at a country-level, based on varying resources and priorities, to calibrate deployment rates

Accelerate progress against the Dual Challenge by 203X

Analysis of Emissions and Energy Consumption

DIRECTIONAL

Energy and Emissions

By source \ By end use	Industry (Iron/steel, (petro)chemical, machinery, construction, etc.)			Transport (Road, aviation rail and pipeline)			Buildings (Residencial and commercial buildings)			Agriculture (Agriculture and fishing)			Other (Non-specified and non-energy sources)			Total	
	Energy	Emission	En/Em	Energy	Emission	En/Em	Energy	Emission	En/Em	Energy	Emission	En/Em	Energy	Emission	En/Em	Energy	Emission
ENERGY																	
Electricity/heat	**18%**	**12%**	-	**<1%**	**0%**	-	**20%**	**12%**	-	**1%**	**1%**	-	**2%[1]**	**7%[2]**	-	**42%**	**32%**
Coal	8%	8%	●	<1%	0%	●	9%	8%	●	<1%	<1%	●	<1%	5%	●	18%	21%
Oil products and oil	<1%	<1%	◐	-	-	-	<1%	<1%	◐	-	-	-	-	-	-	<1%	1%
Natural gas	4%	3%	◐	-	-	-	5%	3%	◐	-	-	-	<1%	1%	◐	10%	7%
Bio/waste[6]	<1%	<1%	●	-	-	-	1%	<1%	●	-	-	-	-	-	-	2%	2%
Nuclear	3%	<1%	◐	-	-	-	3%	<1%	◐	-	-	-	-	-	-	6%	<1%
Renewables[7]	2%	<1%	◐	-	-	-	2%	<1%	◐	-	-	-	<1%	<1%	◐	5%	<1%
Direct combustion	**14%**	**13%**	-	**22%**	**17%**	-	**14%**	**6%**	-	**<1%**	**<1%**	-	**8%[3]**	**7%[4]**	-	**58%**	**44%**
Coal	6%	6%	●	-	-	-	1%	<1%	◐	-	-	-	<1%	1%	●	7%	7%
Oil products and oil	2%	2%	●	20%	16%	◐	2%	1%	◐	<1%	<1%	●	6%	5%	◐	31%	24%
Natural gas	5%	3%	◐	<1%	<1%	●	5%	2%	◐	-	-	-	1%	1%	●	12%	6%
Bio/waste	1%	2%	●	<1%	1%	●	6%	3%	◐	-	-	-	-	-	-	8%	6%
NON-ENERGY																	
Industrial processes	-	6%	N/A	-	-	N/A	-	-	N/A	-	-	N/A	-	-	N/A	N/A	6%
Agriculture	-	-	N/A	-	-	N/A	-	-	N/A	-	12%	N/A	-	-	N/A	N/A	12%
Other	-	-	N/A	-	-	N/A	-	-	N/A	-	-	N/A	-	7%[5]	N/A	N/A	7%
Total	**32%**	**31%**		**22%**	**17%**		**34%**	**18%**		**2%**	**13%**		**10%**	**21%**		**100%**	**100%**

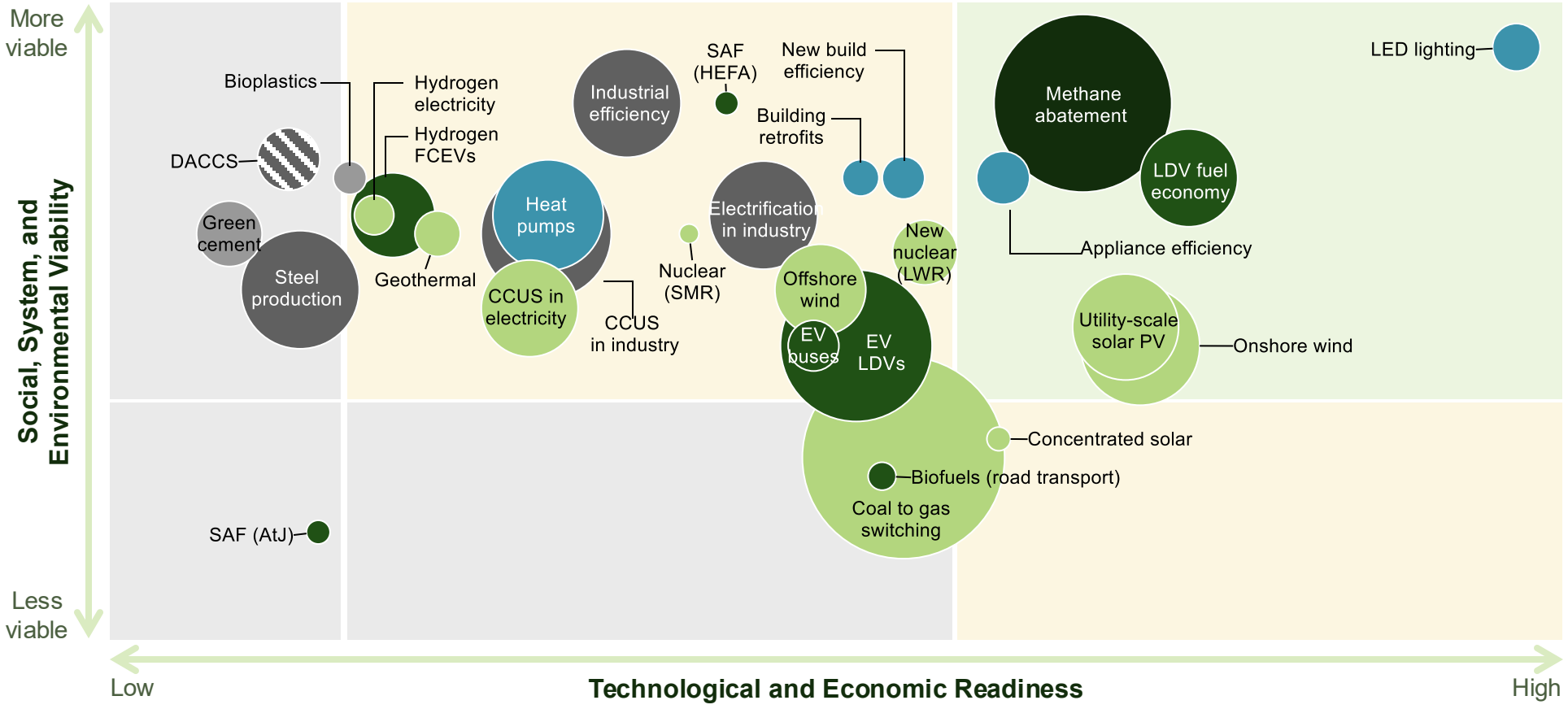
Key impact areas

- (A) **Electricity** generation from **fossil fuels**
- (B) Oil and oil products for **transportation**
- (C) Energy usage in **buildings**
- (D) **Fugitive emissions**
- (E) **Industrial processes**
- (F) **Energy supply needs to expand in a lower carbon manner to support economic growth in the developing world**

Legend:
- Key impact areas
- High Energy/Emissions ratio
- Moderate Energy/Emissions ratio
- Low Energy/Emissions ratio

Note: Data reflected above is for 2019. Energy data reflects primary energy and emissions data reflects greenhouse gas emissions in terms of CO_2 equivalent. 1: Electricity/heat going to non-specified and non-energy uses, 2: Unallocated fuel combustion for electricity, 3: Energy going to non-specified and non-energy uses, 4: Emissions from energy production and fugitive emissions, 5: Emissions from LUCF and food waste (6%), 6: Includes traditional biomass and animal materials/waste 7: Includes geothermal, solar/tide/wind, and hydro, CO_2 equivalent includes methane and nitrous oxide emissions. **Figures are directional.**
Sources: IEA, WRI, Climate Watch, German Environment Agency; EIA

Prioritization of Potential Solutions



Electricity generation from fossil fuels
Oil and oil products for transportation
Energy usage in buildings
Fugitive emissions
Industrial processes
Other

1.5 $GtCO_2e$ — Medium-term annual CO_2e abatement potential

Prioritized by:

- Low cost
- Deployment speed
- Abatement potential

OpenMinds' Top 10 Solutions

Cost effective, ready now

Big 4 opportunities

- Abating methane emissions from energy
- Renewables (i.e., solar and wind)
- Coal-to-X switching
- CCUS in electricity and industry

- Transportation energy efficiency
- Industrial efficiency and electrification
- Electric LDVs
- Heat pumps
- New and existing nuclear
- Buildings efficiency

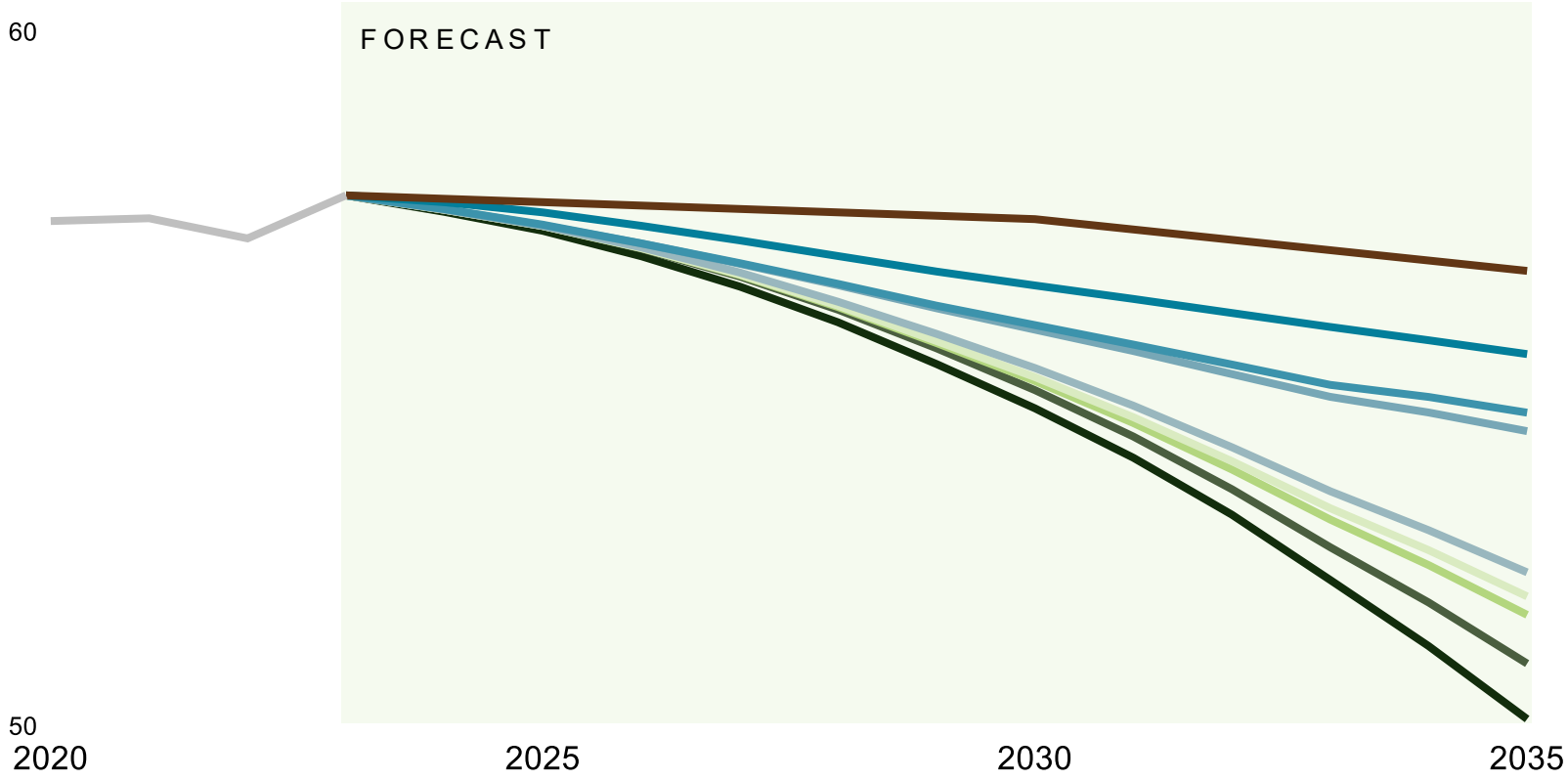
Longer timeline to full potential

- Behavioral change
- Adaptation
- Distributed generation
- Green steel and cement
- Nature-based solutions
- Hydrogen
- LED lighting
- Direct air capture
- Geothermal
- Circular economy

Impact of Implementing Key Solutions

Projected emissions impact

GIGATONS OF CO_2E PER YEAR



Baseline
+
Methane abatement
+
Coal-to-X
+
CCUS in electricity & industry
+
Renewables
+
Nuclear
+
Transportation efficiency
+
Transport electrification
+
Buildings and industry efficiency and electrification

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OpenMinds 2025 Impact Focus

Catalyst Project: Grid Vision

Developing NextGen Leaders

Communicating for Progress

Grid Vision

Optimizing the grid we have **today,** while…

Building the grid we need for **tomorrow**

Delivering affordable, abundant, and reliable power

Driving American prosperity and AI leadership

Delivering Our 800GW Grid Vision with 5 Solutions

		Added capacity by 2035 (GW)
Optimize	1 **Deploy –** ATTs to increase transfer capacity on the existing grid	~120-170
Optimize	2 **Develop –** on-site and local power generation to support load growth	~100-200
Optimize	3 **Install –** storage and controllable load to shift demand and reduce peak strain	~120-250+
Build	4 **Expand –** local transmission to relieve bottlenecks and connect new supply	~200-300
Build	5 **Connect –** links between regional seams to improve reliability and reduce costs	~50-150

Enablers: Policy reform, **technology** acceleration, and **market** alignment are critical to building the future grid

OpenMinds and Partners Are Focusing on Six Key Initiatives

1 The U.S. Grid Vision Plan

Communicate compelling, impactful grid vision plan

BAIN & COMPANY

2 Federal and State Policy

Inform policy to expedite transmission optimization and build

3 AI Planning

Encourage AI planning adoption

Microsoft ThinkLabs EPRI

4 ATTs

Deploy ATTs at a higher frequency

EPRI QUANTA RMI

5 Shovel Ready Interconnects

Accelerate specific and high value high-value transmission projects

GridStrategies

6 Speed to Power Loop

Initiate the development of multi-region transmission project

Utilities IPPs

Project Selection: Existing 6 projects selected for highest near-term OM impact
Projects for future consideration include nuclear, geothermal, storage, etc.

Our Grid Vision Plan Summary

The Challenge

- Electricity demand will rise ~40% by 2035, but **today's grid is too outdated and fragmented to deliver optimal results**

The Vision

- **Interconnected grid** that efficiently meets rapid and changing load growth
- **Reliable power** that withstands extreme weather and tolerates peak stress events
- **Affordable power** that protects ratepayers while investing for the future
- Electron-neutral system that **delivers America's lowest-cost power regardless of energy source**

How We Deliver

- Optimize existing infrastructure with ATTs*
- Demand-side efforts such as distributed generation and storage
- Build more transmission lines both in-region and across regional seams
- Enabled by policy, technology, and market actions

Who Must Act

- Policymakers: Reform planning, permitting, and cost allocation
- Utilities & RTOs: Deploy ATTs, expand transmission, and integrate distributed assets
- Markets & Regulators: Align incentives to drive outcomes
- Tech Providers: Innovate to improve tech and showcase value

Note: *ATT: Advanced transmission technology are technologies that increase the capacity, efficiency, or flexibility of existing transmission infrastructure, including technologies such as advanced reconductoring, dynamic line rating, advanced power flow control, etc.

Communicating For Progress

OpenMinds Communications…

- **Inform** people of the Dual Challenge
- **Connect** relevant individuals and groups
- **Catalyze** action inside & outside of OpenMinds
- **Support** OpenMinds Impact Projects directly

Communications Steering Committee

Nate Nickerson
Communications & Public Affairs Partner, DCVC **(Lead)**

Jeff Katz
Co-Founder, OpenMinds

Dr. Aart de Geus
Executive Chair & Founder, Synopsys

Benji Backer
Executive Chairman & Founder, Nature is Nonpartisan

Brady Walkinshaw
Founder & Publisher, Noisy Creek

Bridgitt Arnold
Vice President of Communications, Google

Rob Shepardson
Founding Partner, SS+K

Rachael Porter
CMO, Oxy

Dr. Maya Tolstoy
Dean of UW College of Environment

Abigail Rodgers
Director
The Consello Group

Will Bernholz
OpenMinds Marketing Advisor

Heidi Lauterbach
OpenMinds Comms Specialist

OpenMinds, Inc

@openminds203x.bsky.social

NextGen Leaders Program: Mission & Vision

MISSION:

*Our mission is to identify, empower, and build a community for the next generation of **energy and climate leaders to lead global impact on the Dual Challenge.***

- Best-in-class talent from **leading universities**
- **Diverse** backgrounds and capabilities
- **Impactful** real-world experience
- Rigorous **ongoing training**, networking, and mentorship
- Interconnected **community and voice**
- **Lifelong commitment**

VISION:

*Over the next decade, NextGen will be a community of **300+ exceptional leaders catalyzing the next generation** for significant global energy and climate impact by shaping policy, transforming markets, founding companies, and scaling ideas into action.*

2026 NextGen SteerCo

Co-Leaders

Dr. Naomi Boness
Managing Director
Stanford Natural Gas and Hydrogen Initiatives

Dr. Robert Johnston
Director, ENR, and Professor, U of Calgary

NextGen Representatives

Michael Ettlinger
Michigan MEng/MS NG25

Andrew Lin
Rice University
PhD ChemE NG25

Sam Hall
Founder, GrowthFactor
MBA MIT NG24

Amanda Studebaker
Senior Associate SCP
Stanford MBA/MS NG24

Committee Members

Carrie Braddock
SLP MD
Stewardship/ Impact

Keila Diamond
Managing Director and Head of ESG
Quantum Energy Partners

Georgina Flatter
CEO
Greentown Labs

Dr. Neil Fromer
Executive Director
Resnick Sustainability Institute, CalTech

Ira Joseph
Global Fellow
CGEP, Columbia University

Dr. Shannon Miller
Founder & CEO
Mainspring Energy

Dan Recht
MD Activate Boston

Monika Simões
CEO & Founder
Energy Dialogues, Inc.

Ben Soltoff
Entrepreneur in Residence
MIT's Martin Trust Center for Entrepreneurship

Dr. Mike Witt
Chief Sustainability Officer
Northrop Grumman

David Pruner
Executive Director
TEX-E

Program Director

Kristin Barbato

OpenMinds Committee Lead

Tom O'Toole

Our Steering Committee comprises leaders in industry, academia, and NextGen Leader representatives.

They serve as corporate and university liaisons as well as NextGen mentors and coaches.

This sounding board provides insights for our long-term vision and driving the impact our leaders can make to support the Dual Challenge.

2025 NextGen Cohort

Nuha Abousam
Harvard University
MBA – Grid Resilience

Marco De Sousa
Texas A&M
PhD – Chemical Engineering

Emma Kerr
Stanford University
PhD – Energy Science and Engineering

Carson Muscat
Stanford University
MBA/MS – Environment & Resources

Mahsa Shabani
University of Washington
PhD – Mechanical Engineering

Dylan Ackerman
Stanford University
MBA/MS – Environment & Resources

Oliver Edelson
Stanford University
MBA/MS – Environment & Resources

Iuliia Kukula
Arizona State University
PhD – Sustainable Energy

Katelyn Parsons
University of Michigan
MBA/MS – Environment & Sustainability

Caroline Shipley
Harvard University
MBA – Sustainability

Haamid Adam
MIT
MBA – Venture Capital: Climate & Deep Tech

Michael Ettlinger
University of Michigan
MEng/MS – Ener. Syst. Eng./Sust. Syst.

Andrew Lin
Rice University
PhD– Chemical Engineering

Milenia Rojas Mendoza
Stanford University
PhD – Chemical Engineering

Benjamin Strzelecki
Columbia University
MPA – Climate, Energy and Environment

Heladio Amaya Colación
Tecnológico de Monterrey
MSc – Applied Economics

Andres Fierro Lopez
UT Austin
PhD – Computational Nuclear Engineering

Amy Liu
University of Washington
PhD– Atmospheric and Climate Science

Gursheel Sahni
Columbia University
MS – Sustainability Management

Serena (Thi) To
University of Calgary
MPP/MBA – Data Center Policy

Adeshina Badejo
Texas A&M
PhD – Petroleum Engineering

Megan Hung
MIT
MBA – Entrepreneurship

Sofia Mantilla Salas
Stanford University
PhD – Earth and Planetary Sciences

Sam Sandefer
Vanderbilt University
BS – Mechanical Engineering

Liwei Yang
Stanford University
MS – Atmosphere and Energy

Adin Becker
Harvard University
MPA/MA – Urban Planning

Mansi Joisher
MIT
PhD – Electrical Eng. and Computer Science

Brighton Mogaka
Arizona State University
PhD – Systems Engineering

Rishav Sen
Vanderbilt University
PhD – Electrical and Computer Engineering

Christopher Yeh
CalTech
PhD – Computational and Mathematical Sciences

Shashwati Da Cunha
UT Austin
PhD – Chemical Engineering

Robert Juckett
University of Michigan
MBA/MS – Sustainability

Founding schools

2024 NextGen Cohort

Frank Agwuncha
Columbia University
Masters – Sustainability Management

David Brown
MIT
MBA – Entrepreneurship

Tam Kemabonta
Arizona State University
PhD – Sustainable Energy

Hannah Mae Merten
Harvard University
MBA/Masters – Public Policy

Oyindamola Pedro
MIT
MBA – Sustainable Fuels

Cameron Andrews
University of Texas
MPA -- Policy

Dennis Cha
Harvard University
MBA – Energy Transport

Vivek Kesireddy
Texas A&M
PhD – Petroleum Engineering

Hannah Murdoch
Stanford University
MBA/MS – Environment & Resources

Kimberly Sinclair
University of Washington
PhD – Earth and Space Sciences & Astrobiology

Edward Apraku
Stanford University
PhD – Environmental Engineering

Anita Chandrahas
Harvard University
Post-Doctoral Fellowship – Biomedical Science

César Lasalde-Ramírez
Caltech
PhD – Energy Storage

Kristina Nabayan
Columbia University
PhD – Materials Science & Engineering

Amanda Studebaker
Stanford University
MBA/MS – Environment & Resources

Ainee Athar
Stanford University
MBA/MSc – Environmental Resources

Debjyoti Chatterjee
University of Texas
PhD – Electrical & Computer Engineering

Daniela Marin
Stanford University
PhD – Chemical Engineering

Ian Naccarella
Harvard University
MBA – Electric Vehicles

Andrew van Baal
University of Michigan
MS – Sustainable Systems

Victor Awosiji
Stanford University
PhD – Earth & Planetary Sciences

Isabelle Dunning
Columbia University
MS – Sustainability Management

Karina Masalkovaite
Stanford University
PhD – Materials Science & Engineering

Bianca Derya Neumann
University of Potsdam
MA – Political Science, Environmental Policy

Yingxiao Zhang
University of Michigan
PhD – Climate Sciences & Engineering

Ines Azoy-Parravano
University of Michigan
Bachelors – Computer Science

Sam Hall
MIT
MBA – Energy & Climate Technology

Hillary McKenzie
University of Michigan
MBA/MA -- Sustainability

Yogi Nishanth
Harvard University
Masters – Sustainability ALM

Stanford University · Columbia University · MIT

Founding schools

Texas A&M · University of Michigan · University of Texas · University of Washington · Harvard · California Institute of Technology · ASU · Universität Potsdam

OM25: OpenMinds

OM25 Key Accomplishments

- Determined the full **potential and economics** of energy & climate solutions through 203X in:
  - New Nuclear
  - CCUS
  - Electric Transmission
  - Methane Abatement
  - Multi-Day Storage
- Created the latest view of bottlenecks to **progress & plan actions** to overcome them
- Shared **cutting-edge perspectives** on energy & climate from OpenMinds, MIT, and Bain & Company
- Accelerated our **Impact Projects** and other high-potential solutions



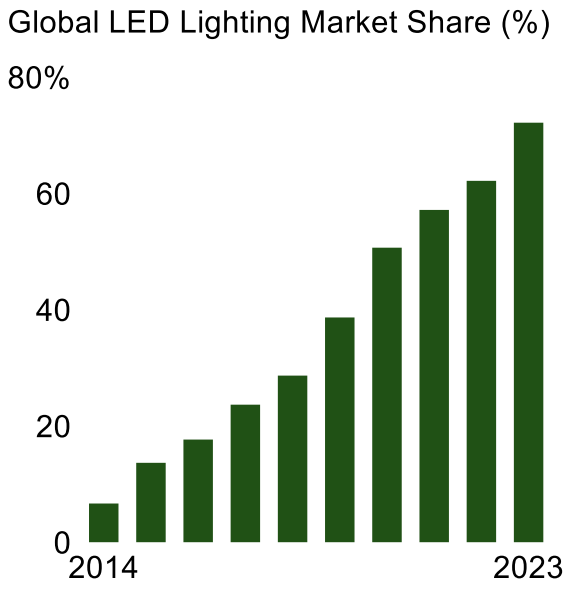


OM26 will be at Stanford University!

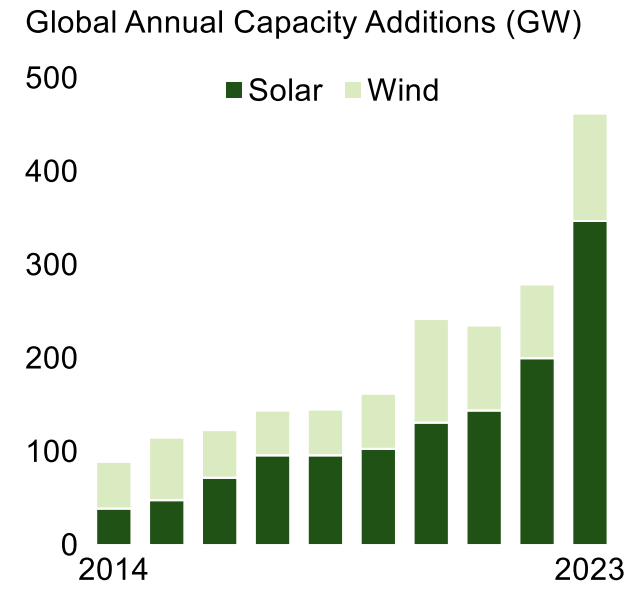
April 15-16, 2026

Progress is Happening — New Technologies are Leading and Accelerating

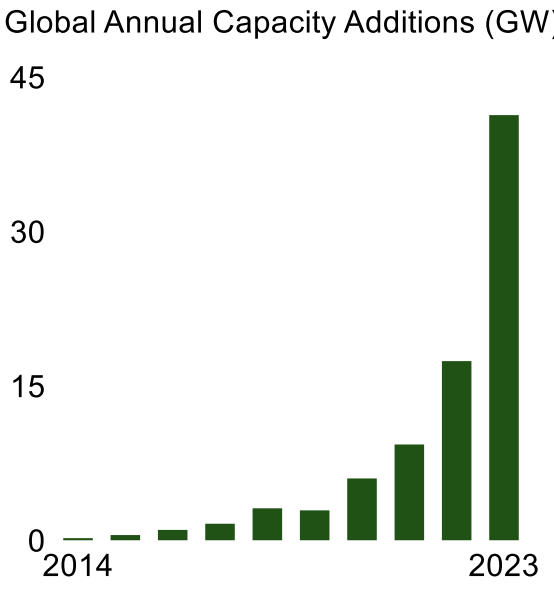
LED Lighting



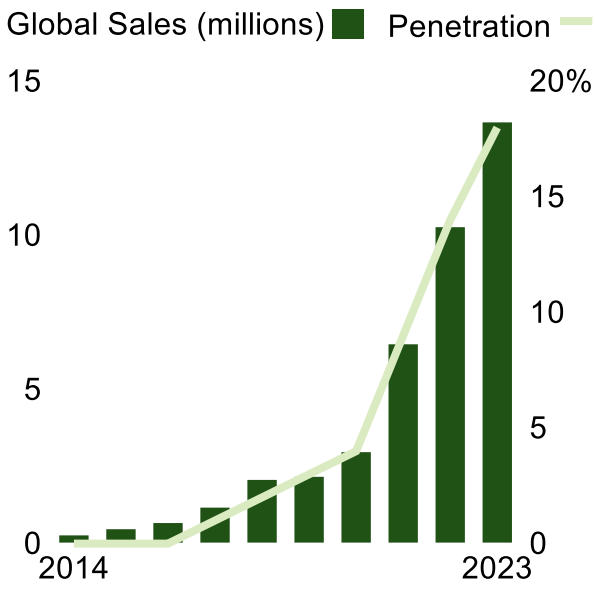
Solar & Wind



Battery Storage



Electric Vehicles

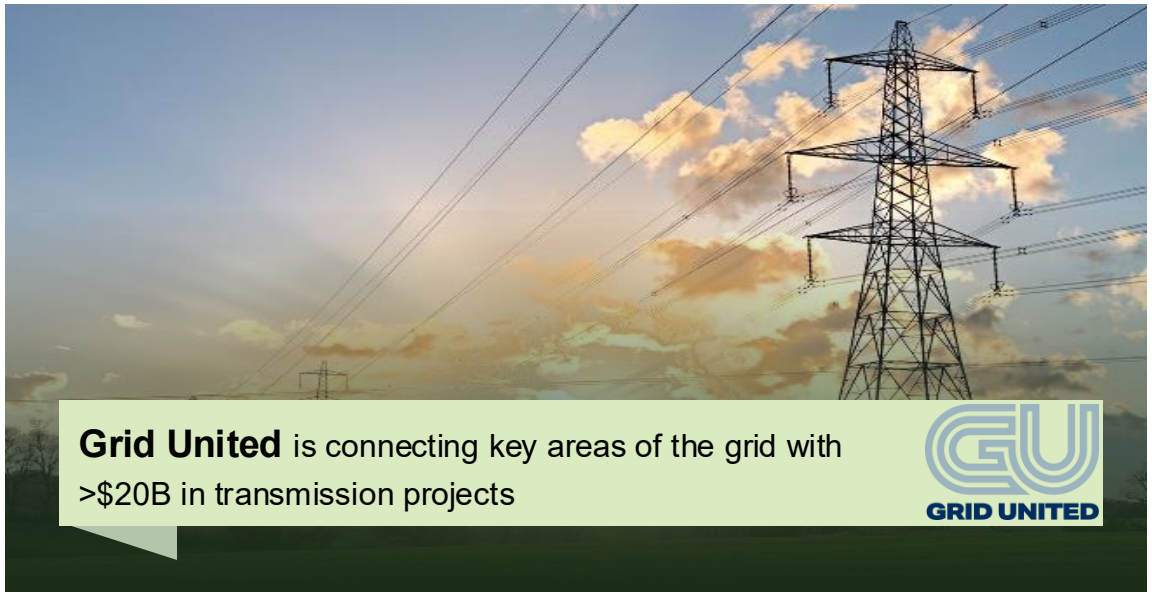


These technologies have already reduced annual emissions by ~2-3 Gt (7-8%)

OpenMinds Team Driving Progress

ERCOT installed 34 GW of capacity from 2022-2024, 95% from renewables

ercot
Your Power. Our Promise.



Grid United is connecting key areas of the grid with >$20B in transmission projects

GU
GRID UNITED

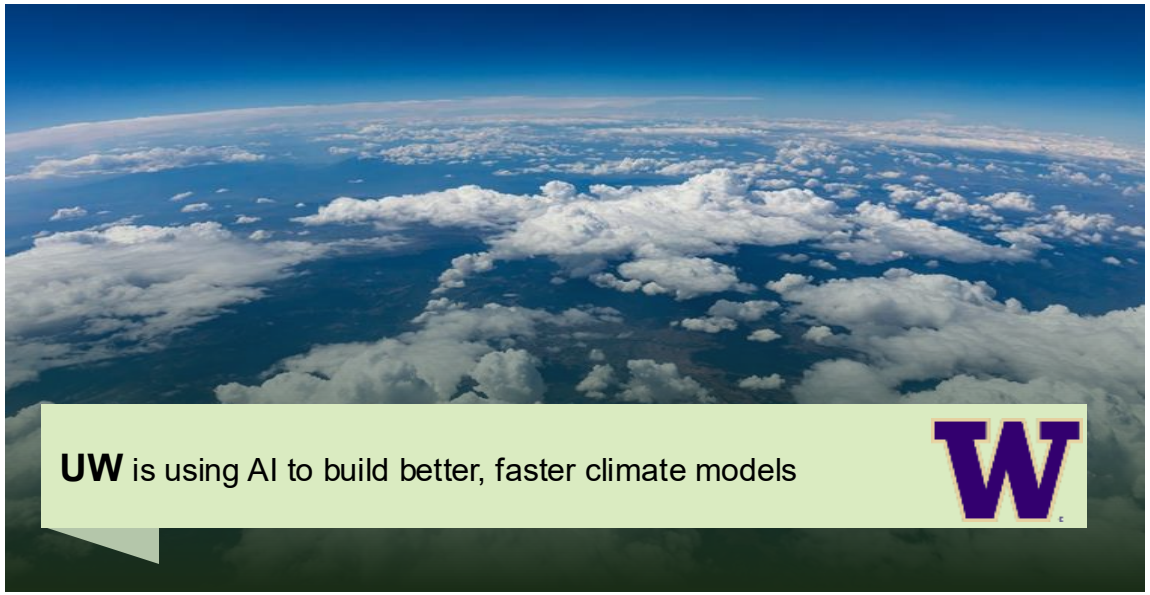
EDF is enabling real-time emissions detection

Environmental Defense Fund

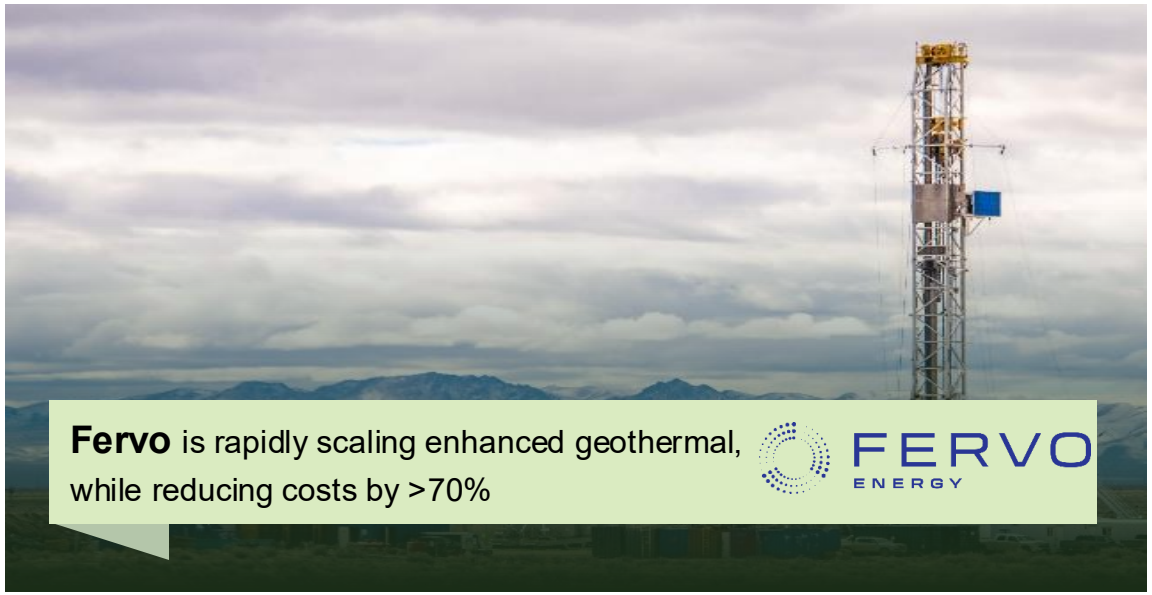
Breakthrough Energy has received $3.5B in committed capital to fund 100+ innovative startups

Breakthrough Energy

OpenMinds Team Driving Progress



UW is using AI to build better, faster climate models



Fervo is rapidly scaling enhanced geothermal, while reducing costs by >70%

Form Energy transformed a historic steel site into a cutting-edge battery manufacturing facility

GE Vernova is driving innovation on decarbonization, renewables acceleration, and electrification

We look forward to staying in touch!

Learn more about OpenMinds, the Dual Challenge, and our Top 10 solutions

https://openminds203x.org/

OpenMinds

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Co-founder, OpenMinds

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OpenMinds

Our History

UNITE

Late in 2021, a group of scientists, CEOs, entrepreneurs, and policy experts across energy and climate met. After reviewing the data, they agreed: solving for more energy and less emissions ***at the same time*** would spawn unprecedented collaboration and better address two of the **world's most urgent challenges**.

DEFINE

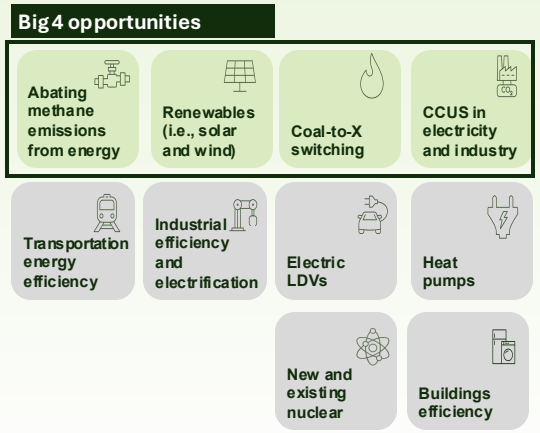
Early in 2022, OpenMinds enlisted the support of consultancy Bain & Company, initiating an extensive review of energy and climate data. An expanded team of OpenMinds experts met to review & align on a **shared problem statement**:

The world needs **more energy** to enhance health & prosperity. However, unchecked, **rising greenhouse gas emissions** will diminish quality of life, globally.

More energy, less emissions, *fast*.
This is **the Dual Challenge.**

SOLVE

OpenMinds developed an **analytical framework** to identify **ten top Dual Challenge solutions** — using a shorter, ten-year time horizon, rather than typical 2050 goals. The expert team prioritized the solutions based on **costs, speed of deployment, and scale of emissions abatement**, and then mapped the solutions against a proprietary baseline forecast, built on the foundation of Bain's Intersect model, of global energy demand, supply mix, emissions and warming. This baseline allows OpenMinds **to assess each solution without bias and focus on removing bottlenecks to accelerate each solution.**



IMPACT

In 2024, we transitioned to a focus on driving impact. For 2025, OpenMinds has organized around **three impact projects** — one focused on their flagship project, *Grid Vision*, driving a **more secure and reliable** US grid, one on creating **next-generation energy and climate leaders**, and one to develop **communication tools** to foster broader alignment amongst energy and climate leaders, and to **accelerate Dual Challenge** progress.

1 Flagship Project: Grid Vision

2 Developing NextGen Leaders

3 Communicating to Drive Progress

OpenMinds is built for this moment. Global consensus is building around the need for **more energy with less emissions, costs of solutions are coming down**, and **collaboration is becoming more widespread.**

OUR VISION

OpenMinds' vision for success by 203X is a world united by the need to solve for **affordable energy** and a **stable climate** simultaneously. Energy will come from diverse sources and will be affordable and reliable across the globe. **Emissions will be declining**, and climate impacts stabilizing. New technologies and supportive policies will provide additional tools and resources to accelerate progress. Leaders driving this progress will be recognized for both **business successes** and **societal impacts**, making it easier for new people and organizations to become involved. And the model for collaboration between historically opposed forces will create a framework for future success across new challenges.

OpenMinds

Solving for the
Dual Challenge.