AWS re:Invent

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ARC206

Sustainability in AWS Global Infrastructure

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Agenda

AWS global infrastructure

The Climate Pledge: net-zero carbon by 2040

Renewable energy

Energy efficiency & carbon reduction

Water stewardship

Community Engagement

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AWS global infrastructure

25 GEOGRAPHICAL REGIONS, 81 AVAILABILITY ZONES, 300+ POPS

To be replaced on-site

Region & number of Availability Zones (AZs)

GovCloud (U.S.)
U.S.-East (3), US-West (3)

U.S. West
Oregon (4)
Northern California (3)

U.S. East
N. Virginia (6), Ohio (3)

Canada
Central (3)

South America
São Paulo (3)

Africa
Cape Town (3)

Europe
Frankfurt (3), Paris (3),
Ireland (3), Stockholm (3),
London (3), Milan (3)

Middle East
Bahrain (3)

Asia Pacific
Singapore (3), Sydney (3), Jakarta (3),
Tokyo (4), Osaka (3)
Seoul (4), Mumbai (3), Hong Kong (3)

China
Beijing (2), Ningxia (3)



Announced Regions

9 Regions and 27 AZs in Australia, Canada, India, Indonesia, Israel, Australia, Switzerland, Spain, and United Arab Emirates (UAE)

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Further and faster, together



Commitment to a sustainable future

On September 19, 2019, Amazon and Global Optimism announced The Climate Pledge, a commitment to meet the Paris Agreement 10 years early

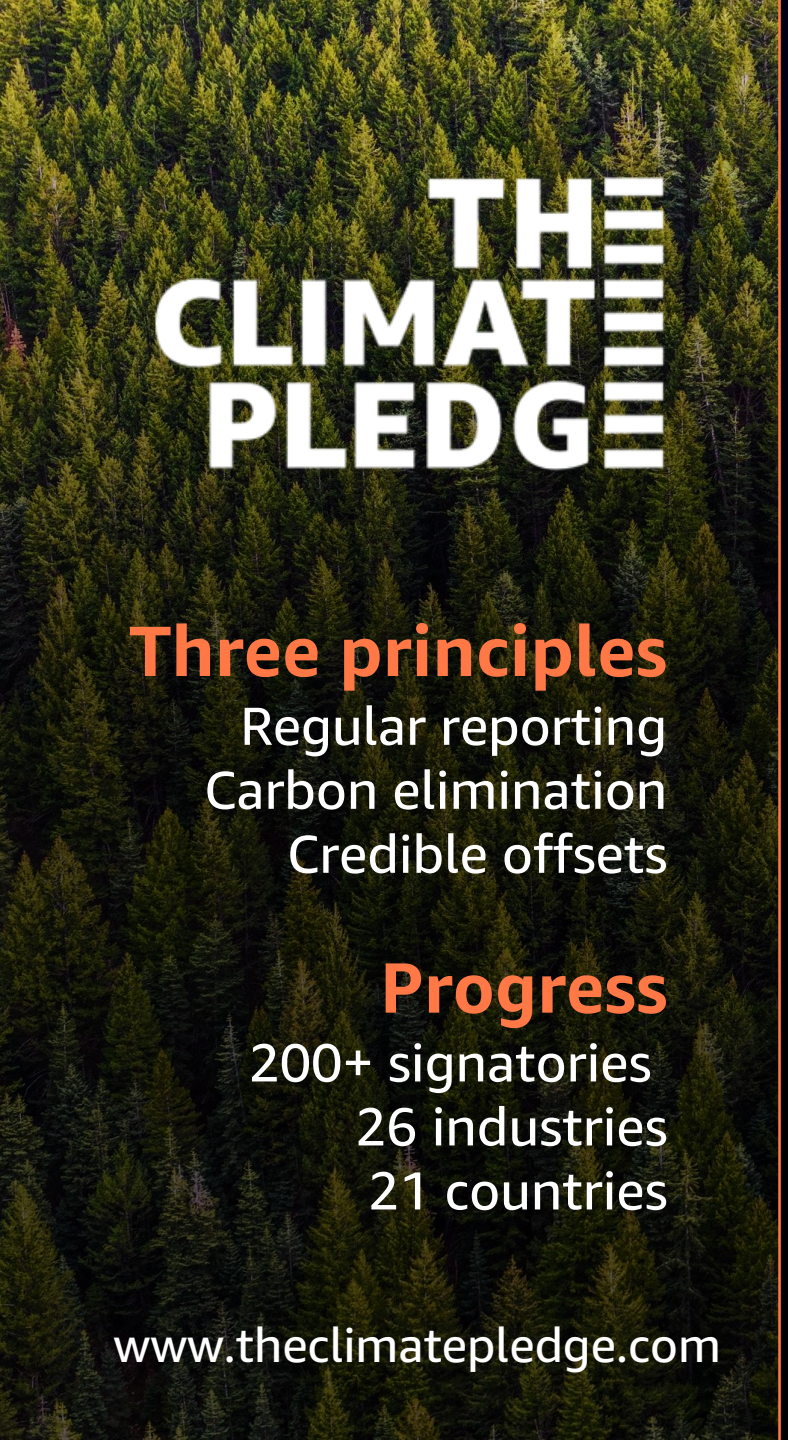
Net-zero carbon by 2040

Path to 100% renewable energy by 2025

$2 billion Climate Pledge Fund

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THE CLIMATE PLEDGE

Three principles

Regular reporting
Carbon elimination
Credible offsets

Progress

200+ signatories
26 industries
21 countries

www.theclimatepledge.com

Alaska Airlines
BNBuilders
Coca-Cola
Colgate-Palmolive
Heineken
IBM
Iron Mountain
LifeStraw
Lime
posti
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Telefónica
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VISA

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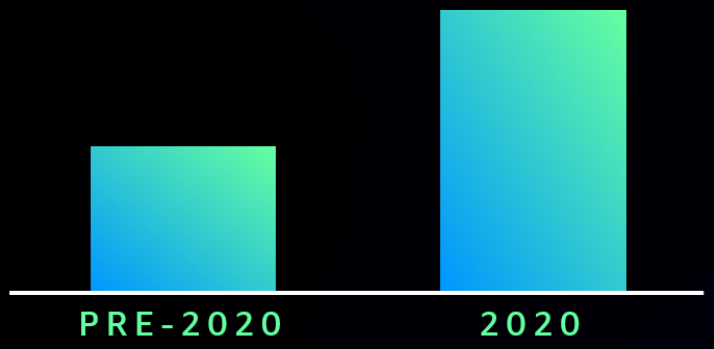
Renewable Energy

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Path to 100% renewable energy by 2025

TOTAL RENEWABLE ENERGY CAPACITY

Over 6,500 MW

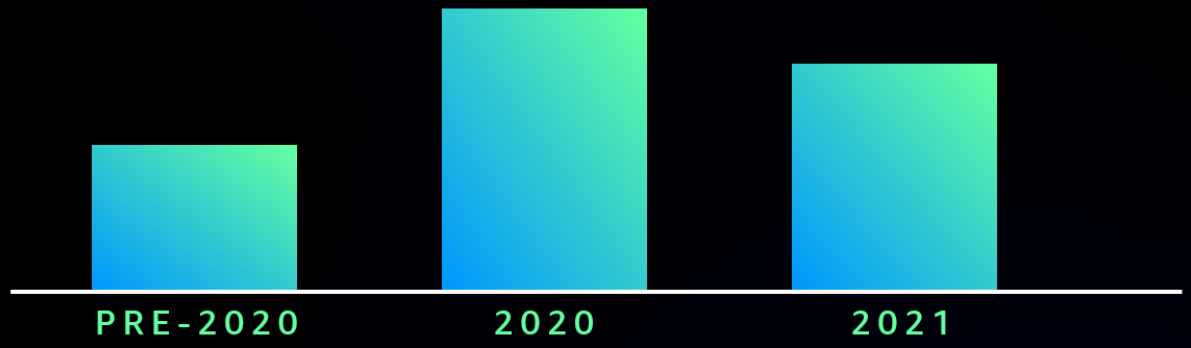


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Path to 100% renewable energy by 2025

TOTAL RENEWABLE ENERGY CAPACITY

Over 10,000 MW

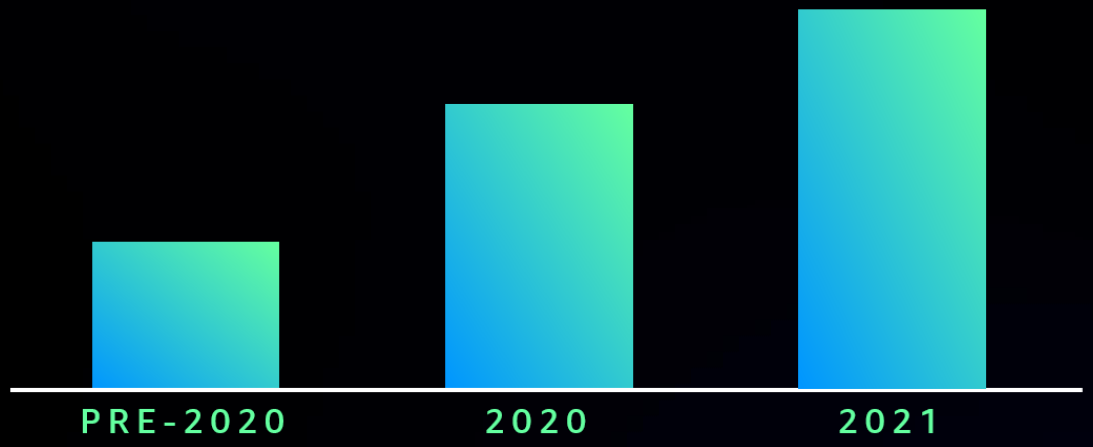


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Path to 100% renewable energy by 2025

TOTAL RENEWABLE ENERGY CAPACITY

Over 12,000 MW



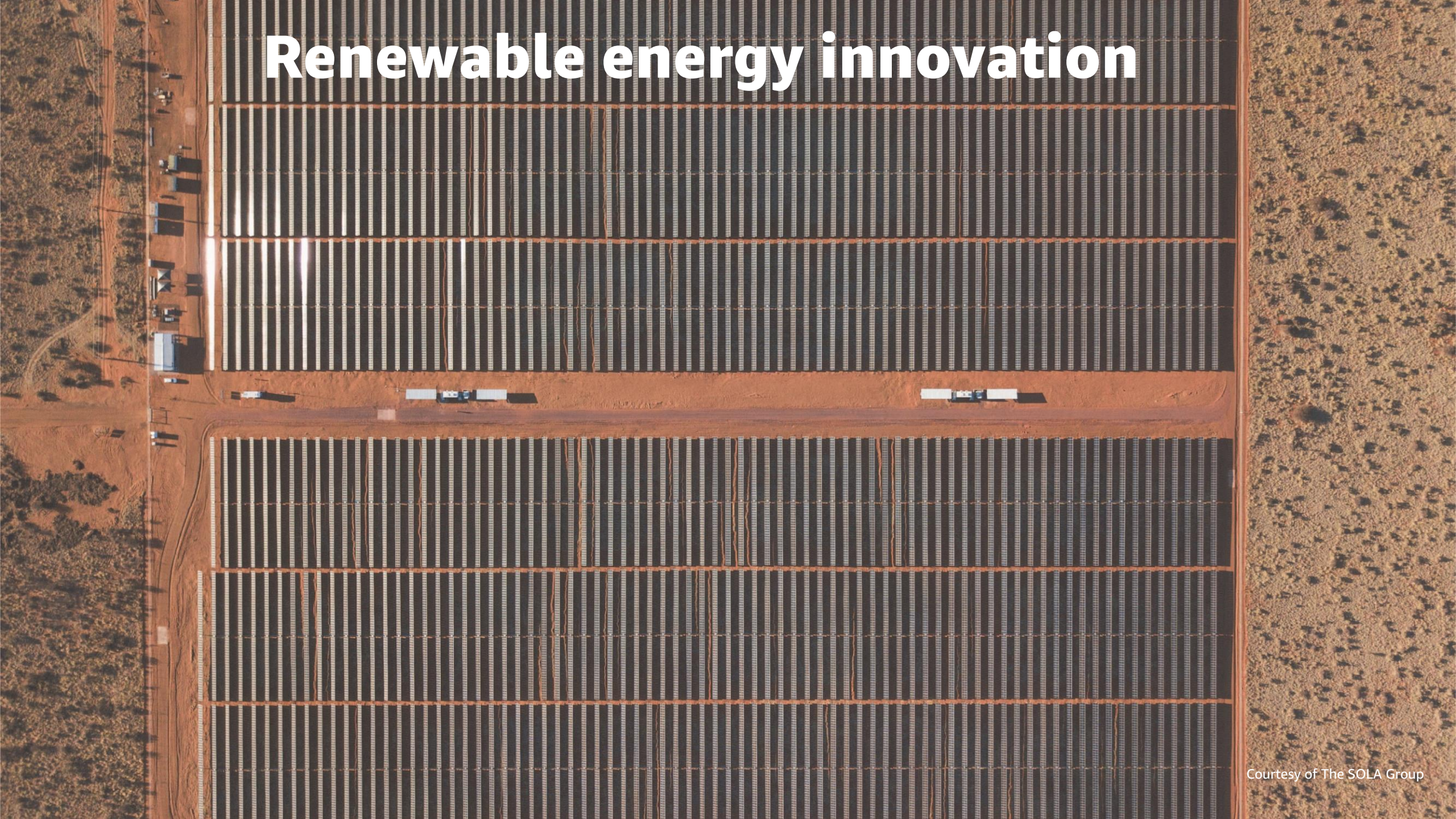
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13.7 million metric tons of carbon emissions will be avoided every year

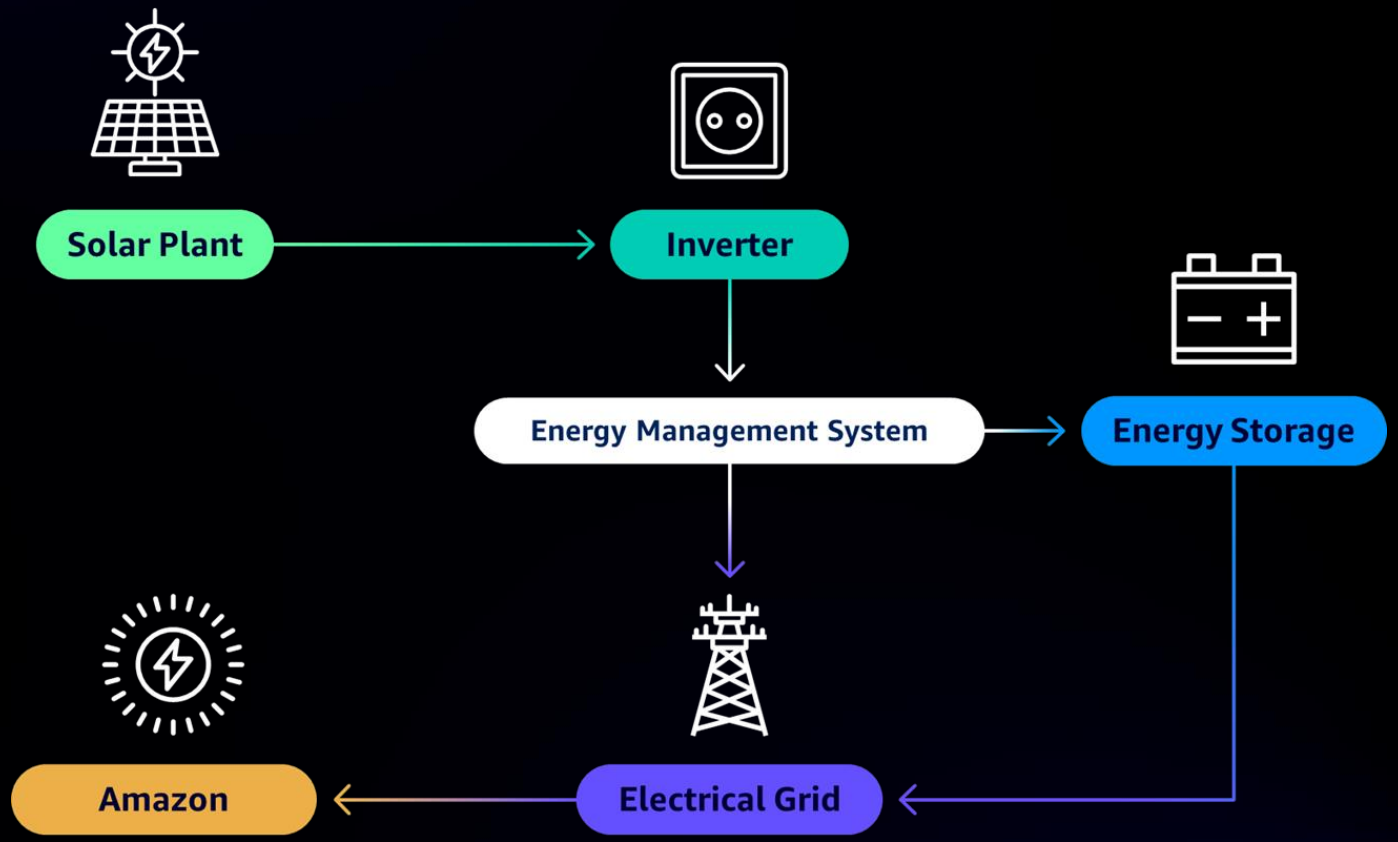
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Renewable energy innovation



Courtesy of The SOLA Group

Utility-scale energy storage



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Offshore wind




Amazon is still the world’s largest corporate purchaser of renewable energy

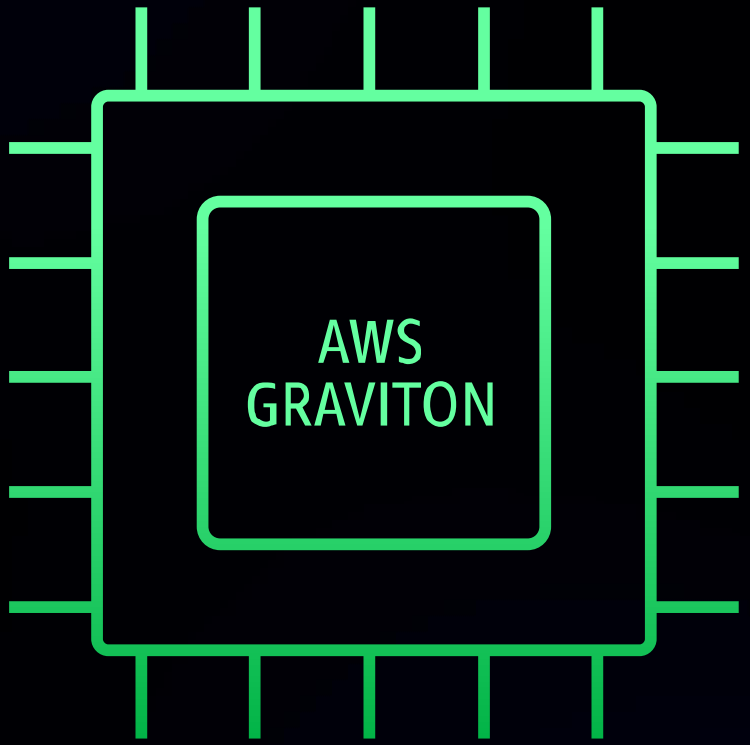
Increasing efficiency & reducing carbon emissions

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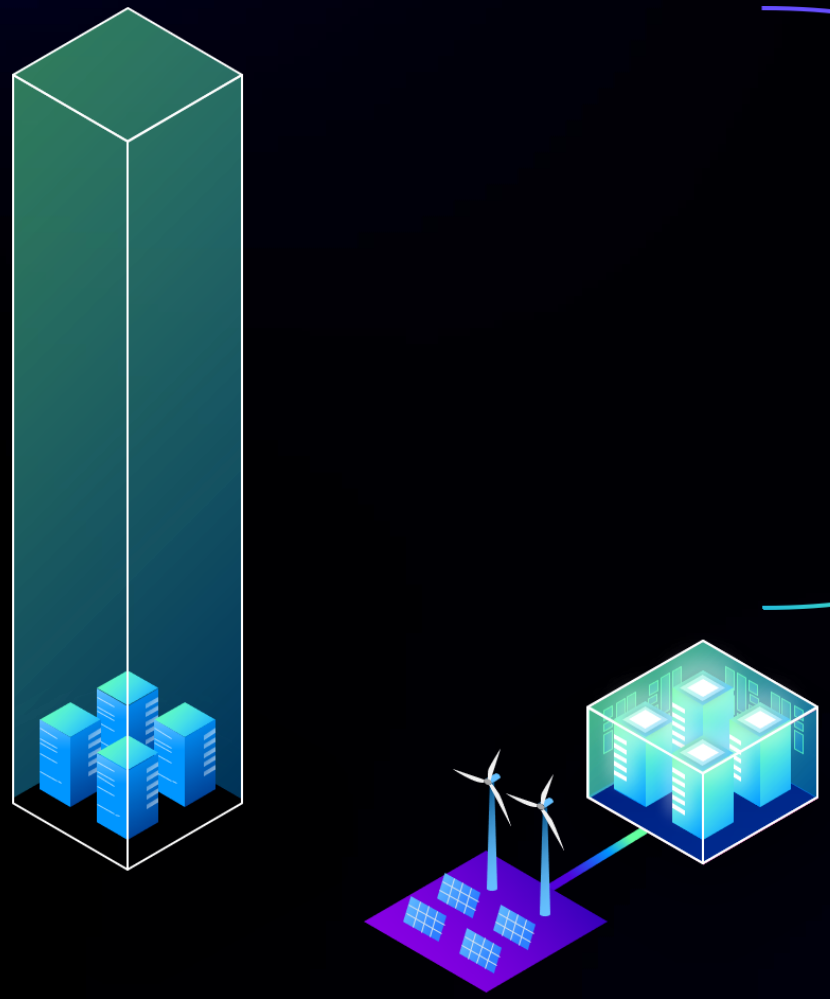
Improving efficiency in every aspect of our infrastructure



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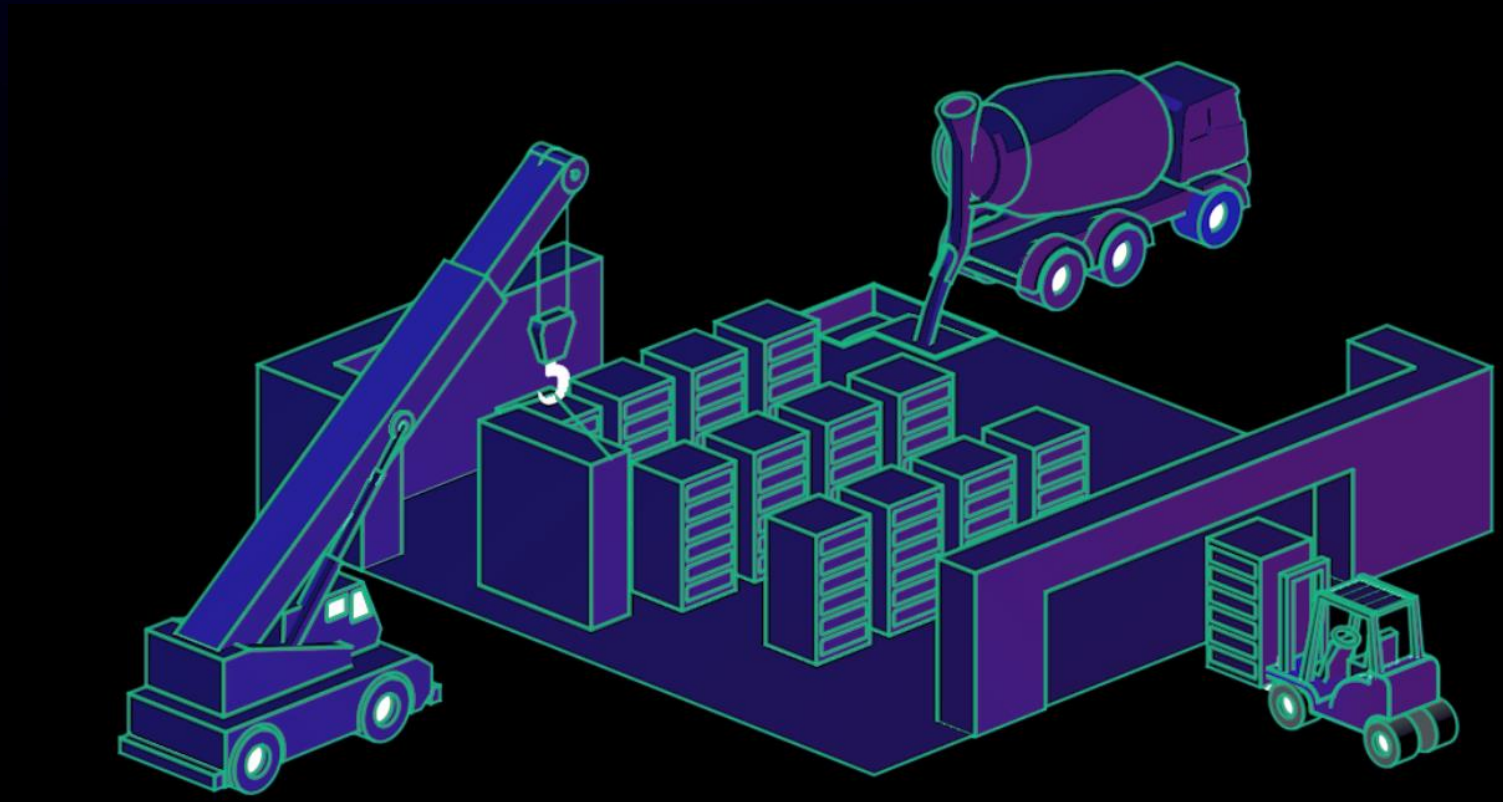
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Up to 80% reduction in energy usage by moving workloads to AWS

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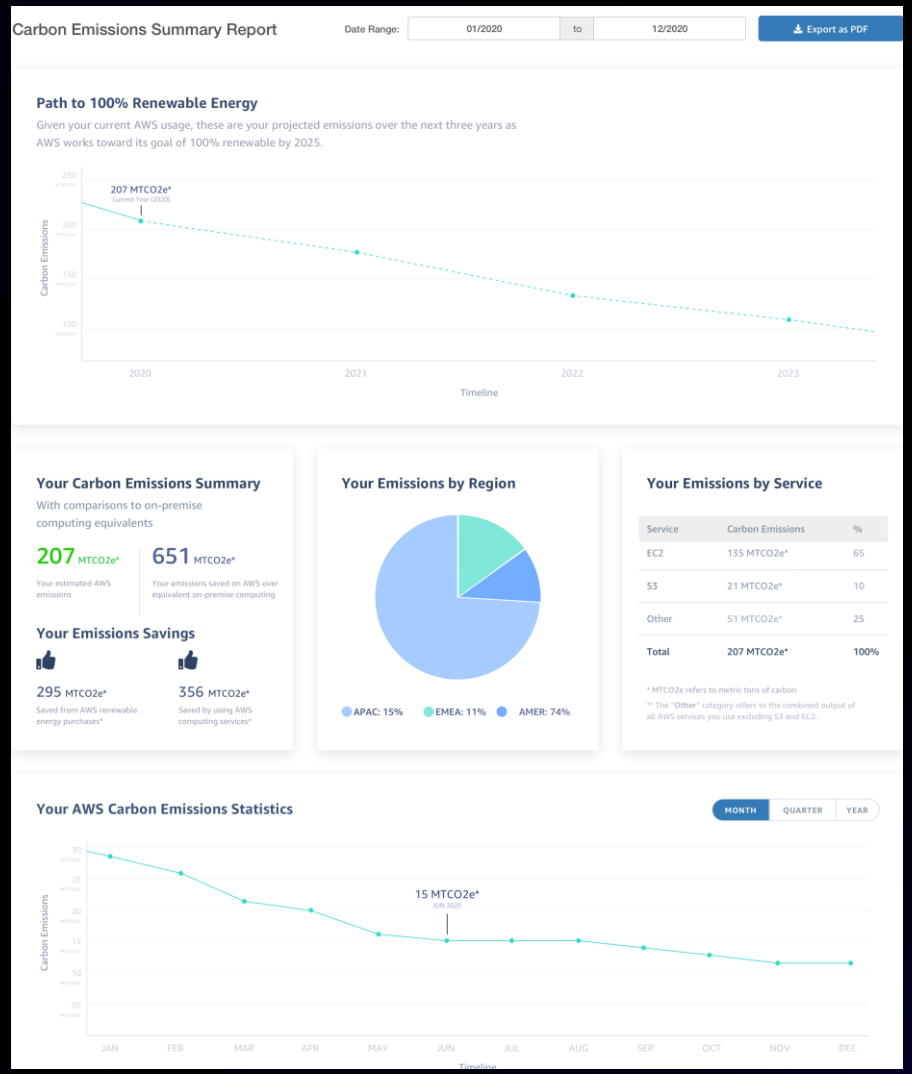
Reducing embodied carbon



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AWS Customer Carbon Footprint Tool

COMING SOON



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Water stewardship

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Sustainable sourcing – recycled water



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Water efficiency

- Evaporative cooling
- On-site water treatment
- Metrics / operational best practices

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Returning water to the community



Watershed Restoration



Community water projects in India and Indonesia



Community engagement

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AWS InCommunities Pillars

- STEAM Education, Access, and Equity
- Local Tech Upskilling
- Environmental Stewardship
- Employee Engagement









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Global Signature Programs

- AWS TechWeek
- Girls' Tech Day
- Family Tech Day
- Think Big Spaces









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Global Signature Programs





aws.amazon.com/about-aws/global-infrastructure/aws-incommunities

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Regional programs

- Stepping Stones - Ireland
- Parking Lot Wi-Fi - Virginia
- COVID Relief – India
- Soil for Life – Cape Town
- Biodiversity - EMEA
- Community Funds - Global



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Sustainability Challenge for Students - 2022



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Other sustainability sessions at re:Invent

AMZ202 - Driving sustainable operations at Amazon and climate pledge arena

AIM207 - AI/ML for sustainability innovation: Insight at the edge

ARC325 - Architecting for sustainability

IOT206 - Scaling sustainability solutions with IoT

STP213 - How startups are building solutions for a sustainable future

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Thank you!

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