

An **Action Plan** for Solving Our Climate Crisis Now

What we need to do to cut emissions to **net zero**—and how we can do it in time.

1.0

Electrify Transportation



2.0



Decarbonize the Grid

3.0

Fix Food



4.0



Protect Nature

5.0

Clean Up Industry



6.0

Remove Carbon



7.0

Win Politics and Policy



8.0



Turn Movements Into Action

9.0

Innovate!



10.0

Invest!



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10 objectives and 49 key results to cut emissions to **net zero** by 2050

Achieved On Track Insufficient Progress Failing Code Red Limited Data

Solutions

1.0 Electrify Transportation

Reduce 8 gigatons of transportation emissions to 2 gigatons by 2050.

KR 1.1	Price	Achieve price parity between EVs and gas-powered vehicles in the U.S. by 2024, in India and China by 2030.
KR 1.2	Cars	Increase EV sales to 50% of all new car sales by 2030, 95% by 2040.
KR 1.3	Buses	Electrify all new buses by 2025.
KR 1.4	Trucks	Increase sales of zero-emissions medium and heavy trucks to 30% of all new truck sales by 2030; 95% by 2045.
KR 1.5	Miles	Increase miles driven by electric vehicles (two- and three-wheelers, cars, buses, and trucks) to 50% of the global total by 2040, 95% by 2050. ↓ 5 Gt
KR 1.6	Planes	Increase low-carbon fuel (SAF) to 20% of all aviation fuel by 2025; zero-emissions fuel to 40% by 2040. ↓ 0.3 Gt
KR 1.7	Maritime	Deploy zero-emissions fuel for 5% of maritime shipping by 2030; zero out emissions for the shipping industry by 2050. ↓ 0.6 Gt

2.0 Decarbonize the Grid

Reduce 24 gigatons of global electricity and heating emissions to 3 gigatons by 2050.

KR 2.1	Zero Emissions	Tap emissions-free sources to generate 50% of electricity worldwide by 2025, 90% by 2035.* ↓ 16.5 Gt
KR 2.2	Solar and Wind	Make solar and wind cheaper than fossil fuels in all countries by 2025.
KR 2.3	Storage	Electricity storage drops below \$50 per kWh for short duration (4–24 hours) by 2025, \$10 per kWh for long duration (14–30 days) by 2030.
KR 2.4	Coal and Gas	Eliminate new coal and gas plants from 2024 on; retire or zero out emissions in existing plants by 2025 for coal and by 2035 for gas.*
KR 2.5	Methane	Reduce flaring and eliminate leaks and venting from coal, oil, and gas sites by 2025. ↓ 3 Gt
KR 2.6	Heating and Cooking	Cut fossil fuels for heating and cooking in half by 2040.* ↓ 1.5 Gt
KR 2.7	Clean Economy	Triple the ratio of GDP to fossil fuel consumption.

3.0 Fix Food

Reduce agricultural emissions from 9 gigatons to 2 gigatons by 2050.

KR 3.1	Farm Soils	Improve soil health by increasing carbon content in topsoils to a minimum of 3% by 2035. ↓ 2 Gt
KR 3.2	Fertilizers	Stop overuse of nitrogen-based fertilizers and develop cleaner alternatives to cut emissions in half by 2050. ↓ 0.5 Gt
KR 3.3	Cows	Cut emissions from beef and dairy by 25% by 2030, 50% by 2050. ↓ 3 Gt
KR 3.4	Rice	Reduce methane and nitrous oxide from rice farming by 50% by 2050. ↓ 0.5 Gt
KR 3.5	Food Waste	Cut food waste to 10% by 2050. ↓ 1 Gt

4.0 Protect Nature

Go from 6 gigatons of emissions to -1 gigatons by 2050.

KR 4.1	Forests	Achieve net zero deforestation by 2030; end logging and other destructive practices in primary forests. ↓ 6 Gt
KR 4.2	Oceans	Protect 30% of oceans by 2030, 50% by 2050. ↓ 1 Gt
KR 4.3	Lands	Expand protected lands to 30% by 2030, 50% by 2050.

5.0 Clean Up Industry

Reduce 12 gigatons of industrial emissions to 4 gigatons by 2050.

KR 5.1	Steel	Reduce emissions from steel production 50% by 2030, 90% by 2040. ↓ 3 Gt
KR 5.2	Cement	Reduce emissions from cement production 25% by 2030, 90% by 2040. ↓ 2 Gt
KR 5.3	Other Industries	Reduce emissions from other industrial sources (primarily plastics, chemicals, paper, aluminum, glass, and apparel) 60% by 2050. ↓ 3 Gt

6.0 Remove Carbon

Remove 10 gigatons of carbon dioxide per year.

KR 6.1	Nature-Based Removal	Remove at least 3 gigatons per year by 2030 and 5 gigatons by 2040. ↓ 5 Gt
KR 6.2	Engineered Removal	Remove at least 1 gigaton per year by 2030 and 5 gigatons by 2050. ↓ 5 Gt

Accelerants

7.0 Win Politics and Policy

KR 7.1	Net Zero Pledges	Each country commits to reach net zero by 2050.*
KR 7.2	Action Plans	Each country is on track to cut emissions in half by 2030.
KR 7.3	Carbon Price	National prices on greenhouse gases are set at a minimum of \$75/ton, rising 5% annually.
KR 7.4	Subsidies	Direct subsidies to fossil fuel companies are eliminated.
KR 7.5	Methane	Control flaring, prohibit venting, and mandate prompt capping of methane leaks.
KR 7.6	Refrigerants	Countries commit to phasing out hydrofluorocarbons (HFCs).

8.0 Turn Movements Into Action

KR 8.1	Voters	The climate crisis becomes a top-three issue.
KR 8.2	Government	A majority of key government officials support the drive to net zero.
KR 8.3	Business	100% of Fortune Global 500 companies commit to reach net zero by 2050.
KR 8.4	Education Equity	The world achieves universal primary and secondary education by 2040.
KR 8.5	Health Equity	The world eliminates gaps in pollution-linked mortality rates among racial and socioeconomic groups by 2040.
KR 8.6	Economic Equity	The global clean energy transition creates 65 million fairly distributed new jobs by 2040, outpacing the loss of fossil fuel jobs.

9.0 Innovate!

KR 9.1	Batteries	10,000 GWh of batteries are produced annually at less than \$80 per kWh by 2035.
KR 9.2	Electricity	Cost of zero-emissions baseload power is lowered to \$0.02 per kWh by 2030.
KR 9.3	Green Hydrogen	Cost of producing hydrogen from zero-emissions sources drops to \$2 per kg by 2030, \$1 per kg by 2040.
KR 9.4	Carbon Removal	Cost of engineered carbon dioxide removal falls to \$100 per ton by 2030, \$50 per ton by 2040.
KR 9.5	Carbon-Neutral Fuels	Cost of synthetic fuel drops to \$2.50 per gallon for jet fuel and \$3.50 for gasoline by 2035.

10.0 Invest!

KR 10.1	Financial Incentives	Global government support and incentives for clean energy expand to \$600 billion per year.
KR 10.2	Government R&D	Public investment in sustainability research and development increases to \$120 billion per year.
KR 10.3	Venture Capital	Private investment into cleantech startups totals \$50 billion per year.
KR 10.4	Project Financing	Clean energy project financing rises to \$1 trillion per year.
KR 10.5	Philanthropic Investing	Philanthropic dollars for tackling emissions grow to \$30 billion per year.

**This timeline applies to advanced economies. For emerging economies, this key result may require an additional five to ten years.*

2024 Update: Track progress and take action by visiting speedandscale.com

