

Investing in our future

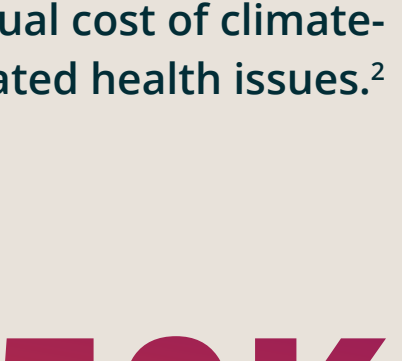
The economic case for energy innovation and climate action

Time is no longer running out to act on climate change; it's up, and **the global economy is at a crossroads**. But, if the world acts now to rapidly achieve net-zero emissions by mid-century, the transformation of the economy would set the world up for stronger economic growth by 2070.¹¹

Deloitte, Global Turning Point, 2022

The cost of inaction

HEALTH



\$2-4B

The estimated annual cost of climate-related health issues.²

250K

Additional deaths per year, from malnutrition, disease, and heat stress alone.²

WEALTH



\$160B

In wages lost each year by 2090.³

2B

Labor hours lost each year by 2090.³

\$178T

Without action, climate change could create \$178 trillion in global economic losses in present-value terms by 2070.⁴

WEATHER

23.1M

People per year are displaced due to severe weather events globally in the last decade.⁵

4X Increase in the cost of recovery from severe weather events in the United States and **600% increase** in severe weather events costing \$1B+.⁶

1980

2020

Correlated with an increase of 1 degree Celsius in global temperature + a rise in carbon dioxide emissions.

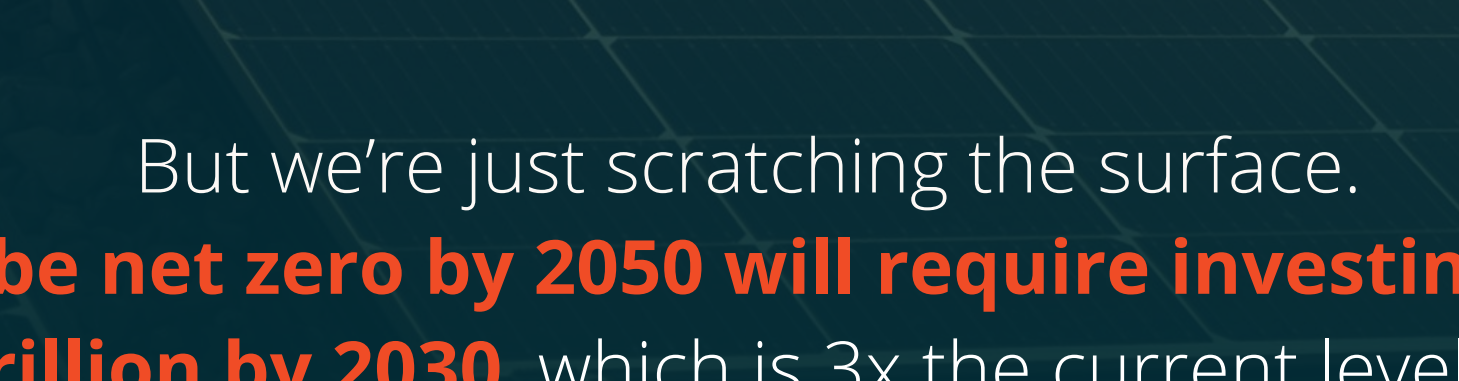
An exponential relationship between carbon dioxide levels, temperature and disasters could translate into increased disaster frequency, severity, unpredictability, healthcare costs, healthcare utilization and deaths. To **mitigate the economic impacts, policies combating CO2 emissions and therefore temperature change are required**.⁶

Gregory Ciottone, MD

President of the World Association for Disaster and Emergency Medicine and Associate Professor at Harvard Medical School

Change is underway

By the middle of the decade, **renewable energy sources will surpass coal** as a source of global electricity.⁷



But we're just scratching the surface. **To be net zero by 2050 will require investing \$4 trillion by 2030**, which is 3x the current levels.⁸

Every country, city, financial institution and company should adopt plans for **transitioning to net zero emissions by 2050** and take decisive action now.⁹

Antonio Guterres

Secretary-General of the United Nations

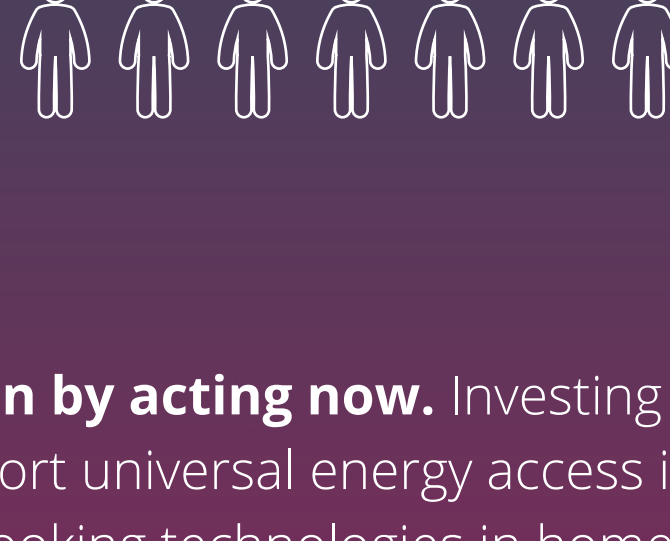
The reward of action

Investment, innovation, and collaboration can change the world in terms of:

ENERGY EQUITY

775M

775 million people around the world currently live without electricity. Decentralized, renewable energy solutions can tackle that inequity forever.¹⁰



We must protect the next generation by acting now. Investing in clean and renewable solutions to support universal energy access is how we can make real change. Clean electricity in health-care facilities can play a crucial role in protecting the health of our most vulnerable populations.¹¹

Dr. Tedros Adhanom Ghebreyesus

Director-General, World Health Organization

IMPROVED GLOBAL HEALTH

2X

The value of health gains from energy innovation = **2x the cost of global policies** to cut greenhouse gas emissions.¹²

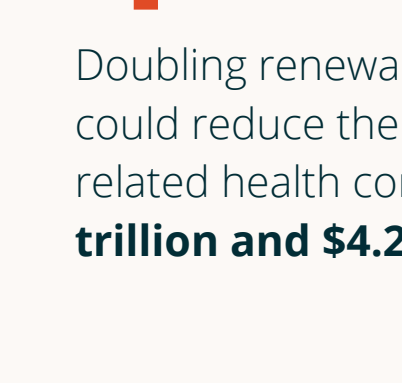


\$1.2T

Doubling renewable energy capacity by 2070 could reduce the cost of treating climate-related health conditions by **between \$1.2 trillion and \$4.2 trillion annually**.¹²

1M

The reduction in pollution-related illness associated with a net-zero future could **save 1 million lives a year** worldwide by 2050.¹²



EXPONENTIAL ECONOMIC GROWTH

3X

Every dollar of investment in renewables creates **3x more jobs** than in the fossil fuel industry.¹³

\$43T

Collaborative and coordinated climate action in pursuit of net zero could increase the size of the world economy by **\$43 trillion in net present-value terms by 2070**.¹⁴

65M

The transition toward net zero could create up to **65 million new low-carbon jobs**.¹⁵

What's next

It's time to act if we are to unlock the infinite environmental, economic, and social potential of a net-zero future. It's time to work together to change energy systems forever.

Are you a data scientist, geoscientist, climate innovator or investor who's ready to play your part in accelerating energy innovation? Then you are ready for Onward. Explore our thriving ecosystem of thinkers, doers and investors committed to changing how energy is produced and consumed.

Join our platform for change

1. <https://www.deloitte.com/global/en/issues/climate/globalturningpoint.html>
2. <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>
3. <https://www.deloitte.com/au/en/issues/climate-change/economy-impacts>
4. <https://www.deloitte.com/content/dam/Deloitte/au/Documents/sustainability/deloitte-ai-work-toward-net-zero-nov22.pdf>
5. <https://www.un.org/en/climatechange/science/causes-effects-climate-change>
6. <https://www.isa.org/news/2023-04-natural-disasters-so2-global-temperature.html>
7. <https://www.iea.org/data-and-statistics/charts/global-electricity-generation-by-technology-2015-2021-and-2027>
8. https://www.un.org/sites/un2.un.org/files/fact_sheets_renewable_energy_oct_2022.pdf
9. <https://www.un.org/en/climatechange/un-secretary-general-speaks-state-planet>
10. <https://www.iea.org/commentaries/for-the-first-time-in-decades-the-number-of-people-without-access-to-electricity-is-set-to-increase-by-2022>
11. <https://www.worldbank.org/en/news/press-release/2023/06/09/basic-energy-access-fgds-amid-renewable-opportunities-new-report-shows>
12. <https://www.un.org/en/climatechange/science/key-findings>
13. https://www.deloitte.com/au/en/issues/climate-change/science/renewable-energy_oct_2022.pdf
14. <https://www.deloitte.com/global/en/issues/climatechange/globalturningpoint.html>
15. <https://www.un.org/en/climatechange/science/key-findings>