

# Our Future in Renewable Energy

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As we continue to battle the climate crisis, discussions about the harms of burning fossil fuels have grown increasingly popular. Many are considering partially or completely switching to renewable energy—energy from sources that are “[inexhaustible in duration](#)” but limited in the amount of energy that is available per unit of time.” Unlike fossil fuels, we can access renewable energy sources an unlimited number of times, but the amount of energy from each access is finite. Voting for policies that encourage the government to fund research & development in renewable energy efficiency and motivate corporations and individuals to implement green energy is essential for reducing the long-term consequences of burning fossil fuels and its impact on climate change.

Over the past 70 years, demand for energy has exponentially increased in each sector, and it will continue to do so before plateauing at a high consumption amount. Since we primarily rely on burning natural gas and petroleum for electricity, if we fail to generate enough energy to meet demand from renewable sources, we will be forced to continue burning these dirty fuels and harming our planet. The varied limited supply and increasing costs of extracting such fuels also puts our economy at risk. Minor disturbances in this system could result in disastrous energy crises and recessions.

[According to Our World in Data](#), “wind was 22% [and] solar [was] 23% less expensive than coal,” meaning if one paid \$3590 in rent that ran on renewable energy in 2009, one would only pay \$400 for the same source of energy today. We’ve experienced the most dramatic

decrease in solar photovoltaic power costs by 89%, followed by onshore wind by 70%. Although the cost of renewable energy has decreased, [the overall costs of energy between 2010-2020 have increased](#).

A 100% shift to renewable energy is an unrealistic goal because most of our existing infrastructure, especially in the commercial and industry sector, was built to consume fossil fuels. We can hope for more dramatic shifts in the residential sector because it is easier to build homes for sustainability, which also increases property value and creates a financial incentive to do so. Younger generations are more likely to buy homes with solar panels, which [encourages current homeowners to remodel](#) to meet such demand. [Government subsidies for such projects](#) and perpetuate decreasing costs of implementing renewable energy infrastructure in the residential sector further pushes us towards a greener economy. We can also hope for larger shifts in the transportation sector; companies like Tesla, Ford, Toyota, and Chevrolet brought electric vehicles to the forefront of the automobile industry, and existing strict emission regulation policies incentivize the sales of such vehicles for consumers through emission subsidy programs. Since the [number of consumers is projected to increase](#), any progress towards renewable energy implementation in any sector is better than nothing.

With almost [64% of all academic departments conducting research](#) engaged in sustainability research, UC Berkeley is one of the leading institutions for environmentalism, energy economics, and helping build a greener future. According to the Office of Sustainability, the University also hopes to “[reduce energy use intensity by 2% annually](#)” and procure 100% clean energy through off-campus powerplants by 2050. Furthermore, the University has plans to replace 40% of natural gas combustion with biogas—methane fuel created by fermentation.

Such efforts also prepare UC Berkeley students to work in the exponentially growing energy sector as environmentalists, engineers, and businesspeople. To ensure that we can develop renewable energy technology that can meet the ever-increasing demand and prevent dependency on natural gas, we must continue to fund research in the materials sciences, energy science, and energy economics.