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Renewable Resources: The Impact of Green Energy on the Economy

Updated Feb 21, 2023



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The world still depends heavily on coal, oil and natural gas to meet its energy needs. However, the use of these energy sources has a drastic impact on the environment. Furthermore, fossil fuels are nonrenewable, so they won't last forever. As their supplies dwindle, they'll become more expensive and challenging to retrieve while still damaging the environment.

In response, more countries are shifting away from nonrenewable energy sources and turning to "green energy" to mitigate environmental damage while benefiting the economy. We'll explore green energy, its economic and environmental impacts, and how businesses can take advantage of renewable resources.

What is green energy?

Green energy is generated from renewable sources rather than limited sources, such as fossil fuels. Consumers, businesses and governments worldwide are shifting away from fossil fuel energy toward green energy to lessen the impact of climate change and pollution.

Renewable energy sources include solar, wind, water (hydropower, tides and waves), biomass and geothermal. These energy sources generally lessen the impact of climate change on the environment.



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the environment compared with fossil fuels, and they'll never die out because they're continuously replenished.

Did You Know?



Sustainable business practices that support green energy can resonate with your customer base and increase brand loyalty.

What is the current and projected global market for energy?

We'll examine the current state of fossil fuel-based energy and renewable energy in the global market.

Fossil fuels and the global market

Fossil fuels dominate the power sector and will continue to be a significant energy source for at least the next 10 years. According to an International Energy Agency report, fossil fuel-based energy covered 40% of global energy needs in 2022. However, it will likely shrink as a percentage of total energy output in subsequent years.

Renewable energy and the global market

The global renewable energy market, according to Allied Market Research, was valued at \$881.7 billion in 2020 and is expected to reach \$1.98 trillion by 2030, growing at a compound annual growth rate (CAGR) of 8.4% from 2021 to 2030.

IEA reports that in 2021, renewable energy constituted 12.55% of global energy production, including electricity, heating and transportation. Renewable energy generation was projected to grow more than 6% year over year by the end of 2022.

Here's a look at renewable energy's most significant sectors:

- **Hydropower.** Hydropower is the biggest renewable energy source, and its energy output is more than that of all other renewable energy sources combined. In 2020, hydropower supplied about 17% of the world's electricity production and 7% of total global energy needs. Its usage is projected to increase by 17% between 2021 and 2030. The most growth is expected in the Asia Pacific, Africa, and the Middle East regions; aging infrastructure in the United States and Europe is causing hydropower stagnation in those markets.
- **Solar energy.** The most dramatic growth is expected from the solar energy sector. Currently, solar accounts for 3.72% of the world's energy, and total solar energy produced increased by 23% from 2019 to 2020. Valued at \$184.03 billion in 2021, the global solar market is projected to grow to \$293.18 billion in 2028 at a CAGR of 6.9%. However, to reach targets set by the IEA's Net Zero Emissions 2050 road map, the sector will need to grow by 24% per year between 2020 and 2030.

Here's how the globe's major players stand in the renewable energy sector:

- **China** has been a leading renewable energy producer and is responsible for generating 30.8% of global hydroelectric power, 33.8% of global wind energy and 32.3% of global solar energy.
- **Europe and the U.S.** are also big producers of renewable energy, producing 15.5% and 16% of global solar energy, 21.4% and 20.9% of global wind energy, and 8.2% and 6.1% of hydroelectric power, respectively.

Tip



To make your business's computing practices more eco-friendly, implement cloud computing, establish a remote work plan for your employees, and create a paperless

office.

What is green energy's impact on the economy?

More than 100 countries – an even mix of developing and developed nations – have set renewable energy targets. The European Union, in particular, has defined an ambitious goal of acquiring 32% of its energy needs from renewable sources by 2030.

The United States is focused on transforming toward a more energy-based economy as the reality of global climate change approaches rapidly. Significant economic changes are expected, including the following:

1. Renewable energy could add more jobs.

Making the switch from fossil fuels to renewable energy sources could provide a kick to the economy. According to a report from the [World Resources Institute](#), the United States can add 4.5 million jobs per year for 10 years if it invests in clean energy and low-carbon growth strategies.

The International Renewable Energy Agency's [2021 Renewable Energy and Jobs annual review](#) projects that global renewable energy jobs will increase from 12 million in 2020 to 38 million by 2030 and 43 million by 2050.

Did You Know?



In 2050, solar is projected to produce the most jobs (19.9 million), followed by bioenergy (13.7 million), wind (5.5 million) and hydropower (3.7 million).

2. Renewable energy can lower consumer expenses.

The production of renewable energy is usually more efficient compared with traditional energy. Households that have installed solar panels and live in places with net metering

significantly reduce their electric bills, which translates to more savings if they purchase an electric vehicle.

For utilities, it is less expensive to build a new solar or wind installation than to continue operating an existing coal-fired power plant. For consumers, driving an electric car costs less than half as much per mile compared with driving a gasoline-powered car.

If the U.S. invests in the clean energy programs outlined in the Build Back Better Bill, the average household could save \$500 a year on energy costs.

3. Renewable energy makes good business sense.

For many years, environmentalists argued for adopting renewable energy to replace traditional energy resources. Today, governments and corporations are singing the same tune because it makes good business sense.

Companies make money producing wind turbines and solar panels. For example, General Electric is the global leader in onshore wind energy equipment – a sector that's responsible for a 20% profit increase.

The construction industry benefits from building retrofitting, while the automobile industry benefits from building mass transit and electric vehicles. For utility companies, it's less expensive to build renewable power systems than to operate existing fossil fuel plants.

Investing in renewable energy can also have a massive impact on a government's expenses. For example, Germany imports much of its oil and gas from Russia. As per estimations, the country could be using only renewable energy by 2050, helping it save billions of dollars.

4. Renewable energy facilitates universal energy access.

Fossil fuel dependence distorts the energy market, resulting in a significant number of people without power access. Our World in Data estimates that 940 million people worldwide (13% of the world's population) had no access to electricity in 2020.

A total of 2.6 billion people relied on traditional biomass for cooking in the same year. Cooking with biomass fuel causes household air pollution, resulting in about 4 million

premature deaths annually. The vast majority of these individuals were in Asia and sub-Saharan Africa.

Renewable energy can reach even remote, deprived areas through decentralized solar and minigrids, although it will take some investment from governments and nongovernmental organizations.

5. Renewable energy is an ethical investment avenue.

The renewables sector is an ethical, attractive investment for investors who want to look beyond traditional channels. Rising investments create a healthy, positive outlook for the sector, creating an intangible impact on job creation and community cohesion.

6. Renewable energy reduces disaster recovery and rebuilding costs.

In addition to the catastrophic suffering and loss of life caused by climate disasters such as wildfires, droughts, and severe hurricanes and blizzards, governments spend enormous amounts of money on recovery and rebuilding.

According to the National Oceanic and Atmospheric Administration (NOAA), since 1980, the United States has experienced 323 weather and climate disasters with overall damages exceeding \$1 billion; the total cost of these events exceeds \$2.19 trillion.

In 2021 alone, the U.S. had 20 of these disasters, including one drought, two floods, 11 severe storms, four tropical cyclone events, one wildfire and one winter storm, with a recovery cost of \$148 billion.

When economies shift from fossil fuels to green energy, these climate-related disasters will start to become less frequent and severe.

Tip



To reduce your business's carbon footprint, try implementing a zero-waste initiative, harnessing renewable energy sources, cutting business travel to reduce emissions, and

educating your team on carbon accountability.

What businesses use green energy?

Although many business types can use green energy in some form, it's easier for some to make the switch to renewable energy and energy conservation.

- **Warehouses, superstores and factories:** Warehouses and factories with large buildings also have extensive roofs on which they can install solar panels.
- **Businesses with vehicle fleets:** If your business involves distribution, transportation, logistics or delivery, you have a fleet of vehicles. Switching to electric vehicles involves a capital expense that can be amortized (and may qualify you for a tax break), and you will save on fuel costs.
- **Farms and ranches:** Organizations with large amounts of land, particularly in the West, can install wind turbines to generate renewable energy.
- **Construction companies:** Companies involved in new construction can incorporate green energy into the plans, including solar power and green building practices.
- **Companies with stand-alone buildings:** If you have a brick-and-mortar storefront for your business, you can install a micro wind turbine to generate power or a geothermal heat pump for your HVAC system.

Tip



You don't need a vehicle fleet to take advantage of electric vehicle benefits. Even using electric vehicles as your company cars can bring tax breaks and other benefits.

How can companies take advantage of renewable resources?

Companies with their own buildings have the most flexibility when it comes to generating and using green energy. For example, they can install solar panels, geothermal heat pumps or wind turbines. In addition to the savings on your electric bill, there are federal – and often state and local – tax incentives to invest in clean energy.

If you don't have your own building, you can help your utility build green energy production. To help finance renewable energy installations, companies can sign a corporate power purchase agreement (CPPA), a long-term energy supply contract with a fixed price structure. CPPAs mandate that the company's energy come from renewable sources and provide a fixed price structure, protecting the company from future price increases.


Any company with vehicles can switch to electric vehicles, which also saves on fuel. There is also a federal tax credit of up to \$7,500 per vehicle, depending on the manufacturer, battery capacity and tax amount due.

Tip



When you transition to renewable energy sources, share this information with your customers in your [social media marketing](#) campaigns.

The green energy movement in the corporate world

Sensitivity toward global warming is increasing globally, and some big companies claim to be functioning entirely on green energy to reduce carbon emissions and do their part to  the planet.

Corporate giants such as Intel, Apple, Microsoft, Estee Lauder, Google, Kohl's and Unilever are utilizing green power in the U.S., thus reducing their carbon footprints.

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Jennifer Dublino is a prolific researcher, writer, and editor, specializing in topical, engaging, and informative content. She has written numerous e-books, slideshows, websites, landing pages, sales pages, email campaigns, blog posts, press releases and thought leadership articles. Topics include consumer financial services, home buying and finance, general business topics, health and wellness, neuroscience and neuromarketing, and B2B industrial products.

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