

Power Up

How Clean Energy Is Putting Fossil Fuel
Demand in Doubt



Executive Summary



Clean energy is gaining momentum around the world — displacing fossil fuels and driving energy security, competitiveness and efficiency across business and nations

The transition to a clean energy economy is well underway and accelerating.

Ten years ago, investment in fossil fuel supply outstripped clean 1.2 to 1. Today, clean energy receives twice as much investment as fossil fuels, boosting GDP growth and adding millions of jobs. And renewable electricity is picking up speed, pushing the share of clean electricity above 40% of the global power mix in 2024. This momentum means that today's clean energy technologies have the potential to replace 75% of existing fossil fuel demand.

Renewable electricity provides a cheaper, faster and more secure way to satisfy growing energy demand in most regions.

Renewables consistently beat projections due to their accessibility and cost. They're available to everyone, everywhere, providing home-grown energy security. And rapid cost declines has meant that most new wind and solar capacity has been added at lower cost than the cheapest fossil fuel alternatives the last several years.

Solar and wind are big enough and cheap enough to transform the power sector.

Solar has grown faster than any energy source in history, and last year it added more than twice as much generation as any other source, driven partially by the increasing cost-competitiveness of batteries. Between 2023 and 2024, new solar and wind, alongside storage, displaced over 650 TWh of fossil fuel use — more than the total electricity demand of South Korea.



A resounding majority of businesses want policymakers to transition away from volatile fossil fuels toward a renewables-based electricity system.

A poll of over 1,400 executives across 15 countries found that over 90% of business executives identify access to renewable electricity as critical for taking decisions on new investments, with half indicating they would relocate their operations and supply chains if their governments don't transition to a renewables-based electricity system.

The global race to clean energy will be led by clean electrification, transforming all sectors of society.

Electric vehicle sales are breaking records, increasing from 4% to 22% of all cars sold in the last five years. Switching to heat pumps and EVs uses three to five times less energy than fossil-based alternatives. And as the role of clean electrification grows, it's likely to undercut the future of fossil capture and hydrogen.

As clean electrification accelerates, high-value export markets will be up for grabs.

China is seizing this opportunity, electrifying nine times faster than the rest of the world, producing and installing the majority of the world's clean tech, and becoming the first major electrostate. As a result, fossil fuel demand is eroding across the country. Given that much of the global supply chain for clean electrification is not yet built, there is enormous opportunity for other countries to anticipate and invest.



Fossil fuel producers risk counting on future demand that may not materialize

The abundant potential of solar and wind in emerging and developing economies means fossil fuel producers shouldn't count on them as the next source of significant demand growth.

In Latin America, for example, the share of solar and wind in total generation rose from under 2% to over 16% over the last ten years. In Africa, solar and wind grew from 1% to 7%, and solar PV — the cheapest electricity source for much of the continent — is primed to take off.

Oil demand is under significant pressure as EVs scale, with no sector, including petrochemicals, capable of offsetting the lost oil demand from road transport.

EVs are currently replacing 1.3 million barrels of oil per day and set to replace 5 million barrels of oil per day by 2030. As a result, oil demand is expected to peak then decline this decade, and suppliers who produce high-cost oil will struggle to stay in business.

Gas demand growth has slowed, raising questions about the viability of new gas production and LNG export facilities.

Renewables are rapidly eroding demand for gas in power. As the wait time and cost of gas turbines increase, and the price of solar and batteries declines, gas for power becomes uncompetitive, especially in countries reliant on LNG. Meanwhile, electrified heat in industry and heat pumps in buildings can replace a significant amount gas demand. Overall, while gas demand may grow in some geographies, total demand is unlikely to keep pace with the surge in LNG capacity, risking overbuilt infrastructure and stranded LNG assets.



The role of coal in power generation is diminishing — the question now is how fast will it fall?

In the last 10 years, planned coal capacity has declined 65%. The remaining planned capacity is concentrated in just 10 countries. In places where renewables are already meeting much of the demand and dominate new installations, new coal plants risk low utilization rates and early retirement.

Realizing the full potential to displace fossil fuel demand will require policies and incentives that support building a clean energy economy.

Businesses across the globe are ready to scale clean technologies, modernize supply chains and lead in global markets. But they need clear policy signals. The findings in this analysis send a clear message to policymakers, investors, fossil fuel producers and corporate energy consumers that clean energy is gaining momentum and that sustained investment in fossil fuels brings significant risks.

For full analysis, visit: www.wemeanbusinesscoalition.org/fossil-fuel-demand-in-doubt/

Sources: World Energy Investment (IEA), World Energy Employment (IEA), Global Electricity Review (Ember), The Cleantech Revolution (RMI), On the horizon of the energy transition, a new economy is rising (ETC), Powering up: Business perspectives on shifting to renewable electricity (WMBC, E3G and Beyond Fossil Fuels), Global EV Outlook (IEA), Electricity Data Explorer (Ember), E3G analysis of Global Energy Monitor Global Coal Plant Tracker dataset.



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A stylized sun icon composed of several white lines radiating from a central point, with a diamond-shaped element at the bottom center.

FOSSIL TO CLEAN