



Rethinking 'Energy' Investment

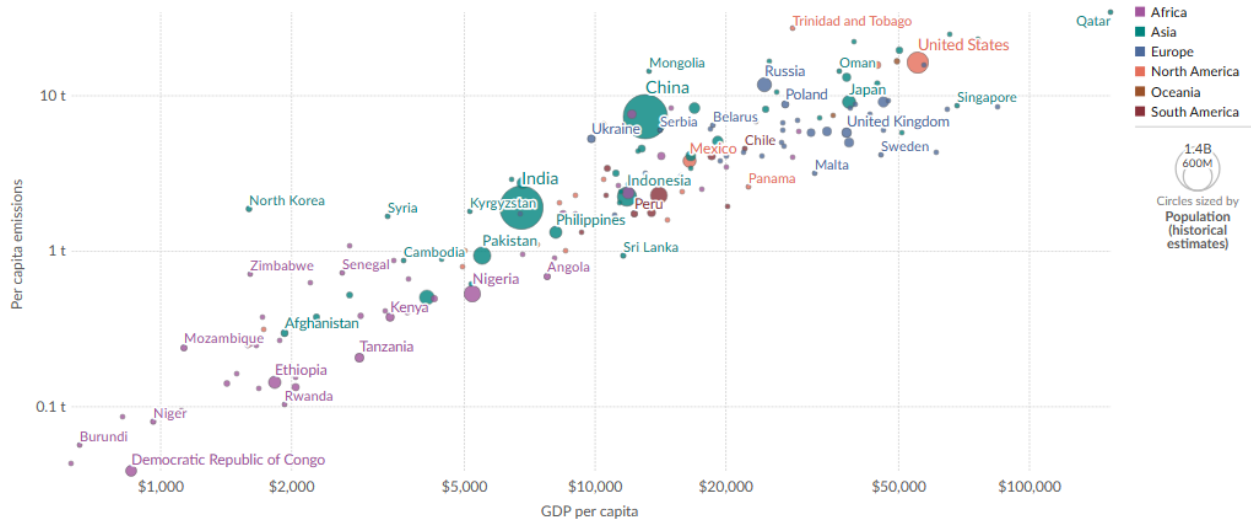
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Energy fuels our daily lives in the form of electricity for our appliances, heat for our homes, and power for our transportation; and it underpins nearly all forms of industrial and commercial productivity.

Public equity investing in energy has historically been entirely focused on fossil fuels – done through oil and gas companies, pipelines, and energy infrastructure service providers, with the expectation that as underlying commodity prices rose, so too would share price. This was a way for equity investors to directly tap into the driver of our economy's growth. But 'energy' is changing, and we believe it is time for investors to cast a wider net to find future opportunity.

Until recently, the fact that 'energy' was largely synonymous with 'fossil fuels' resulted in the lockstep relationship between GDP (Gross Domestic Product) growth and GHG (greenhouse gas) emissions:

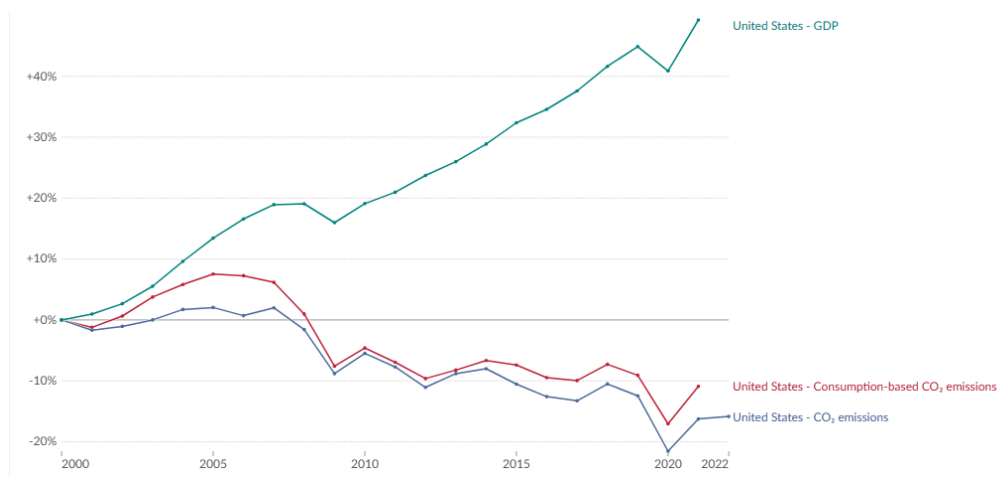
Country per capita CO₂ emissions and GDP, 2018



Source: [CO₂ emissions per capita vs. GDP per capita, 2018 \(ourworldindata.org\)](https://ourworldindata.org) Note: GDP per capita is expressed in 'international-\$' (a measure that holds purchasing power constant across geographies) at 2011 prices.

But this relationship has started to change in recent years, as many economies take steps toward decoupling economic growth from emissions. While the 1990s saw both emissions and GDP growth expand rapidly in the US, the year-over-year change in emissions began to fall in 2005, and then actually start to contract in 2009¹.

Change in per capita CO₂ emissions and GDP, United States, 2000 – 2022



Source: <https://ourworldindata.org/co2-gdp-decoupling> Hannah Ritchie (2021) - "Many countries have decoupled economic growth from CO₂ emissions, even if we take offshored production into account"

A key driver of this outcome – the continued upward trend in GDP paired with the flattening and eventual downturn in GHG emissions – is the type of energy sources that underlie the components of GDP growth. As the US (and most other economies) incorporates a greater proportion of renewables into its energy mix we should not only expect to see this relationship further unwind, but the emergence of a new breed of companies benefitting from the change.

This means that from an investment perspective, we would be wise to rethink what it means to invest in energy, or to have energy exposure in our portfolios. In the presence of new types of energy, and the breaking of the bond between fossil fuels and GDP growth, we should step back and ask ourselves: what kinds of companies will benefit from the energy trends of tomorrow? Which firms are poised to be new energy providers, and what types of products will be needed up and down the supply chain? We should also look for new *types* of companies – those that will be necessary to remodel our energy infrastructure. They will help form new connective tissue within the economy that may only loosely intersect with traditional fossil fuel pathways.

¹ Consumption-based CO₂ is the more complete view of CO₂ emissions as it adjusts for goods that are imported or exported. Put differently, the decrease in CO₂ emissions depicted by the red line was a function of decreased overall energy use and/or substitution of some fossil fuels with lower carbon energy sources, as opposed to 'exporting' our emissions to other countries like China.

While many of the energy names of the future are categorized as renewable energy equipment providers or energy developers, some of the biggest players come from industries like semiconductors, software, IT services, electric components, communications equipment, and even commercial vehicles.

Our ability to look beyond the traditional 'Energy' label for investment opportunity is only going to be more important with the passing of time as the Energy Information Administration (EIA) expects renewable deployment to grow by 17% in 2024 to account for a fourth of electricity generation in the US². And globally, the International Energy Agency (IEA) predicts that by 2028 renewable energy sources will account for over 42% of global electricity generation, with the share of wind and solar PV doubling to 25%³.

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The world's definition of 'Energy' is changing. Isn't it time we evolve our investment definition?

We believe that broadening our field of view to accommodate the new energy players – especially those from unexpected industries – will help us uncover the winners of tomorrow.

Heidi Ridley and Kathryn McDonald, Co-Founders, Radiant Global Investors

² [Short-Term Energy Outlook - U.S. Energy Information Administration \(EIA\)](#)

³ [Executive summary – Renewables 2023 – Analysis - IEA](#)