Markets in a Minute
Climate Change: Can the U. S. Meet Its Aggressive Goals of Reducing Greenhouse Gas Emissions?

President Biden has set ambitious goals for tackling climate change and has already secured billions to advance those goals with the help of the bipartisan infrastructure bill. Yet even before a fraction of that money is spent, the push for a clean-energy future is already transforming the private sector and the investment landscape.

Just how ambitious are President Biden's climate goals? And why the sense of urgency?

- President Biden has pledged to cut climate-warming greenhouse gas emissions (which include carbon dioxide) by as much as 52% from 2005 levels in 2030; create an entirely carbon-pollution-free power sector by 2035; and achieve a net-zero economy by 2050 by striking a balance between greenhouse gas emissions produced and taken out of the atmosphere.
- Interestingly, climate change — which scientists say is making natural disasters worse — is already taking a dramatic toll. Between 1970 and 2019, the number of disasters has increased five-fold and costs related to natural disasters surged to nearly $3.6 trillion globally. There is a silver lining: with the help of early warnings and disaster management, deaths have declined over that time-period from about 50,000 to 20,000.
- The Biden administration reports that in the last year alone, extreme weather cost the United States more than $100 billion.

In the United States, the burning of fossil fuels (coal, oil and natural gas) for energy is the largest source of greenhouse gas emissions from human activity. In this regard, not much has changed over the past 100-plus years. So, how do we get to our climate goals?

- Doing so hinges on reducing energy consumption and transitioning to so-called clean energy sources, including renewables like solar, wind and geothermal. Morningstar estimates that solar represents some two thirds of all planned renewable-energy projects over the next several years.
- Biden's infrastructure bill allocates $66 billion to upgrade passenger rail; $7.5 billion to build a national network of electric-vehicle chargers; $2.5 billion for environmentally

friendly school buses; $42 billion to upgrade ports and airports (including electrification and low-carbon technologies); and $65 billion to improve our power infrastructure, including thousands of miles of new transmission lines to facilitate the expansion of renewable energy.

- Morningstar forecasts that by 2030 clean energy will grow to 65% of U.S. electricity supply, from 40% in 2020.
- That's higher than other forecasts but well short of Biden's goal of "decarbonizing" the power sector by 2035. His plan, notes Morningstar, would require the U.S. to triple its current carbon-free generation. Doing so is likely to prove challenging.

Nonetheless, dramatic changes are already underway in the private sector, creating new opportunities (and potential risks) for investors:

- Companies that are already part of many investors' portfolios have announced ambitious goals for curtailing their climate impact, partly in response to pressure from investors who are focused on sustainability. Consider that auto giants are expected to spend more than $500 billion to make electric vehicles and batteries through 2030.
- The utilities sector, according to Morningstar, will play a major role in eliminating as much as 75% of energy-sector carbon emissions. Investments in new solar and wind projects are expected to be the key drivers of the sector's clean-energy transition.
- Alternative energy exchange-traded funds (ETFs) have experienced volatility lately, Refinitiv Lipper notes. They saw strong inflows and price appreciation last year but performance has slipped this year. Ironically, that has to do with investors' worries that infrastructure spending could exacerbate inflation, pushing up borrowing costs for the many small- and mid-cap firms that make up the sector.
- It's also worth noting that renewable energy ETFs can get granular, focusing on a single source of energy, such as solar or wind. So, being overly exposed to them can introduce risk to investors' portfolios.

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According to a Cornerstone Macro report, it took nearly two centuries for coal to replace wood as the world's primary energy source and a century for oil to eclipse coal. By making climate change a top priority, the Biden administration is certainly hoping that the adoption of clean-energy sources doesn't take nearly that long. For investors interested in benefiting from these investments, it's helpful to keep in mind how long these shifts can take and to be mindful of the risks they can introduce to a portfolio. For instance, all the solar-focused companies in the U.S. make up less than one-tenth of one percent of the S&P 500's overall market cap. So, targeted investments in this area should be kept small.