

How Capital Markets Are Driving Clean Energy

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Takeaways

Capital markets are huge – over \$200 trillion globally. And when steering capital toward climate and clean energy markets, they can have as big an impact on reducing GHG emissions as our most ambitious policy proposals. Capital markets took a massive leap toward clean energy in the last year. This is a positive development since most experts think we have a \$20 trillion backlog of infrastructure and other projects needed to get us on the path to net zero emissions. Investors are looking to get more out of their positions than just a quarterly dividend. They want to be part of the solution to reducing carbon pollution by choosing to

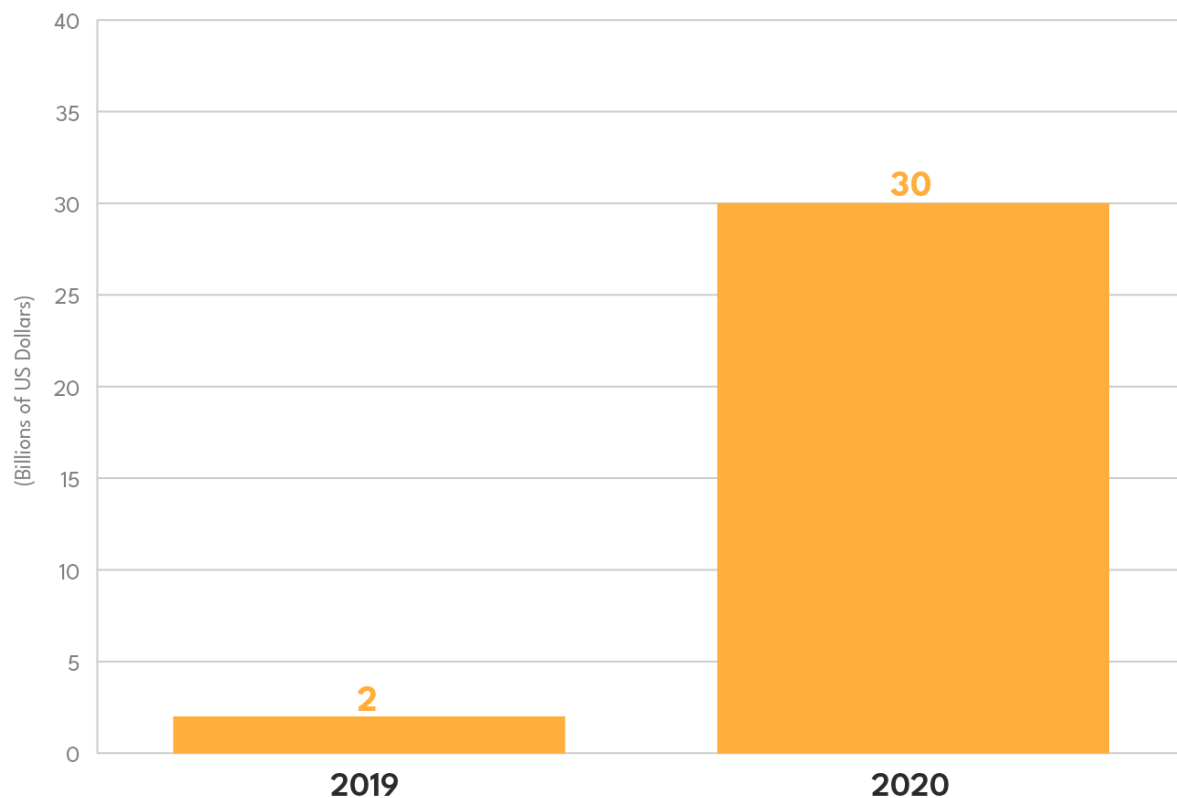
invest in activities that have a measurable, positive impact. Three major investment trends have accelerated recently:

- More capital flowing to clean energy and electric vehicle startups;
- Decisive moves out of fossil fuel assets; and
- Growth in green bonds, supporting projects that cut CO2 emissions.

Investors Pile into Clean Energy Equities and out of Fossil Fuels

Investment has been ramping up in clean energy, from renewables to carbon capture and energy storage. As one example, financial flows to companies with plans to produce electric vehicles surged in 2020. An estimated \$30 billion was invested in US startups including Rivian, Fisker, Lordstown Motors, Canoo, Nikola, Workhorse, and Lucid. Not since the early 1900s have we seen such game-changing movement in the automotive sector. A similar trend is happening with new renewable and energy storage companies, which raised \$20 billion in public markets in 2020 alone.¹

Equity Investment in EV Startups



Source: Bloomberg New Energy Finance. Includes all initial public offerings, investments by special purpose acquisition companies, and secondary share offerings.

Not only is the volume of investment going up, but the returns to investors in clean energy are also rising at a fast clip. Exchange traded funds (ETFs) are aggregates of stocks in a particular category. Investing in ETFs is a way for investors to put money into a group of companies and reduce the risk of exposure to just one company. The money earned – or lost – from holding ETFs are the returns that result from price changes of the stocks in their portfolios.

Investment returns in clean energy exchange traded funds (ETFs) have skyrocketed over the last year. Figure 2 lists the six largest fossil fuel and clean energy ETFs. The height of the bar measures the price change in the ETFs since January 2, 2020. For example, if you invested \$100 in the ICLN clean energy ETF on January 2, 2020, that investment would now be worth \$195 or a 95% return.

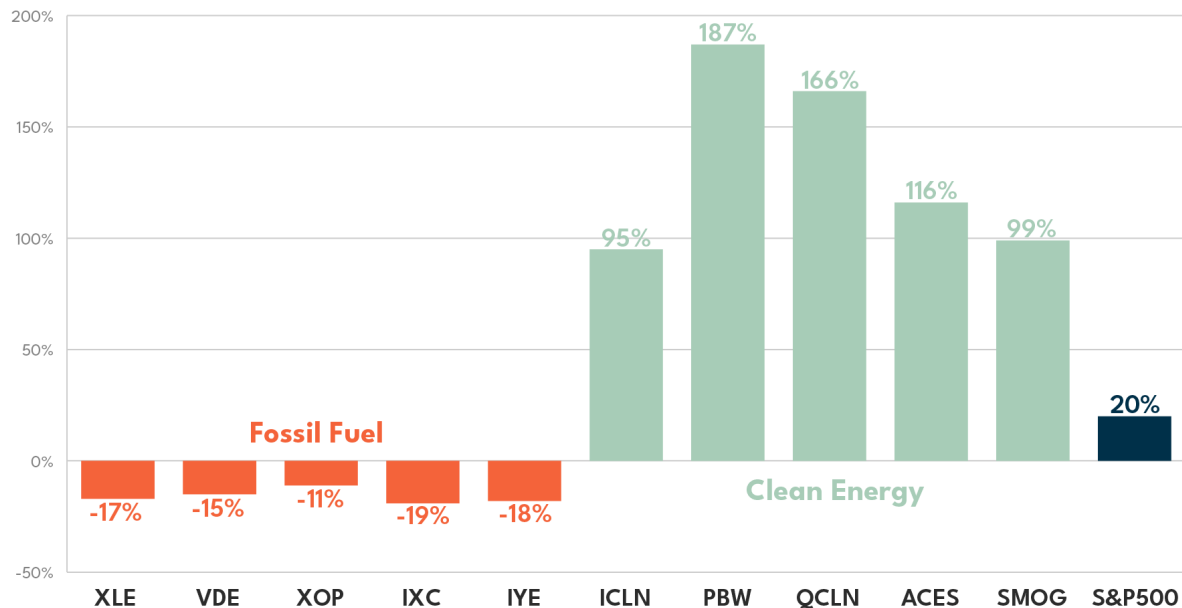
All six clean energy ETFs have outperformed the broader S&P 500 index, with their respective prices each rising by 100% or more since January 2, 2020. In stark contrast, all six fossil fuel ETFs are in loss positions, with prices down by 10–20% over the period ending March 19, 2021. This may come as a surprise to those not heeding climate science and the horrific costs climate risks impose on the

environment, people's livelihoods, and public health. Yet these trends will continue, especially now that investors are attuned to lucrative investment opportunities that contribute to activities reducing carbon pollution.



Fossil Fuel and Clean Energy ETFs

% Return January 2, 2020 – March 19, 2021



Source: Yahoo Finance. www.finance.yahoo.com, accessed 25 Feb. 2021.

Green Bonds

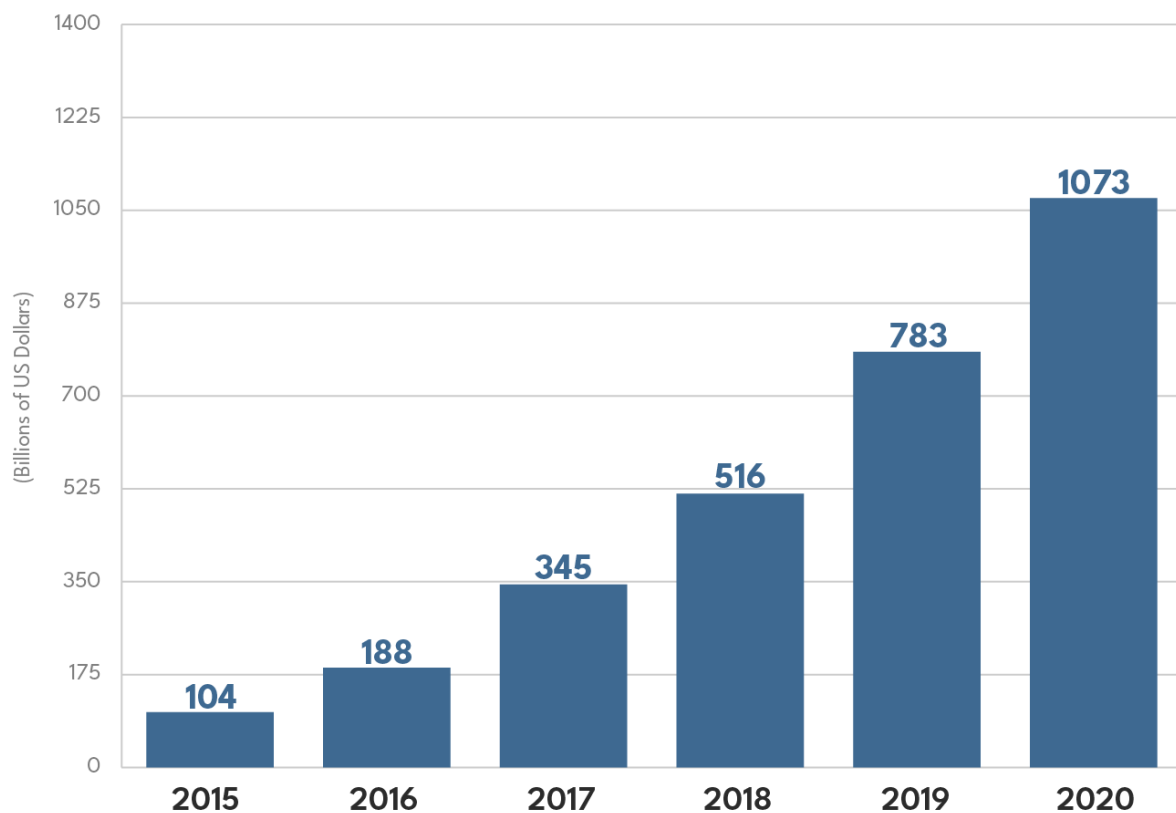
Bonds are broadly defined as debt securities that are issued by borrowers – companies, governments, and municipalities – who need money to invest in new plants and equipment or operational capacity. Borrowers then pay back the full value of the bond, plus interest, to investors via regularly scheduled payments over the life of the bond.

Green bonds function like any other bond but have two additional attributes. First, green bond borrowers (i.e., issuers) are required to dedicate 100% of the money raised toward projects that achieve measurable environmental results, like CO2 emissions reductions. Green bond issuers have used the bonds to finance initiatives in areas such as renewable energy, green buildings, wastewater management, energy efficiency, and public transportation. Second, these results must be transparent to all investors. A recent [Third Way piece on green bonds](#) helps explain the growing momentum in the capital markets starting in 2014 with the establishment of the [Green Bond Principles](#), a framework devised by market participants to bring greater precision to the definition of green bonds.

The green bond market started in 2007 with two high quality issuances from multilateral institutions: the European Investment Bank (EIB) and the World Bank. Although the green bonds were a niche product for many years, today the market is thriving. The Climate Bonds Initiative reports that over \$1 trillion in green bonds have been issued globally, up two-fold from just 2 years ago.² Green bonds are also outperforming other bonds by about 27%, showcasing the growing profitability of clean energy industries.³



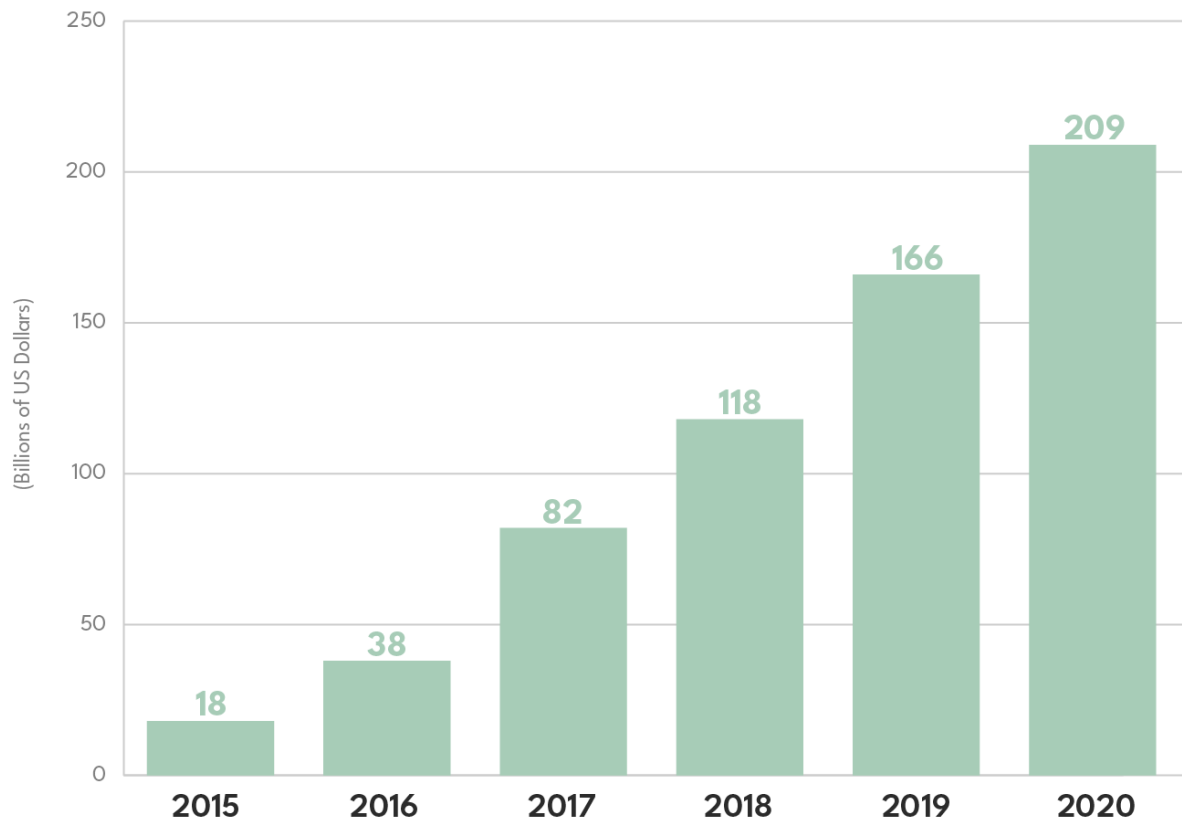
Total Global Volume of Green Bonds



Source: Climate Bonds Initiative, www.climatebonds.net

Green bonds issued in the United States last year totaled over \$40 billion. That brings the total volume of green bonds issued since 2015 to more than \$200 billion.

Total U.S. Volume of Green Bonds



Source: Climate Bonds Initiative, www.climatebonds.net

Climate Policy: Accelerating Current Market Trends

Capital market participants have witnessed an increasing number of companies announce carbon neutrality plans, emphasizing how important it is to reach the Paris Climate Accord target of net zero emissions by 2050. Companies are laying down plans to ensure they can meet emissions targets and, in so doing, reward the communities in which they operate, their employees, and their investors. President Biden has made the climate crisis a top priority, and the administration's proposals to address it will reinforce and accelerate the changes that are currently underway. As more and more companies decarbonize their supply chains to meet these targets, the pool of viable investment options for sustainability-minded investors will grow, and eventually become the baseline for the entire market.

Conclusion

The tide has shifted greatly toward investments that will expand our opportunities to achieve net zero emissions by 2050. The capital markets are already signaling a shift toward this path. Coupled

with timely and targeted climate policies proposed by the Biden Administration, markets can be a gateway, not a roadblock, to a clean energy future.

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ENDNOTES

1. "BNEF Executive Factbook", BloombergNEF, retrieved from:
<https://assets.bbhub.io/professional/sites/24/BNEF-2021-Executive-Factbook.pdf>
2. "Climate Bonds Green Bonds Database", Climate Bonds Initiative, retrieved from:
<https://www.climatebonds.net/2020/12/1trillion-mark-reached-global-cumulative-green-issuance-climate-bonds-data-intelligence>
3. "BNEF Executive Factbook", BloombergNEF, retrieved from:
<https://assets.bbhub.io/professional/sites/24/BNEF-2021-Executive-Factbook.pdf>