



SEPTEMBER 2021

THE MISSING LINK: LISTED INFRASTRUCTURE NEGLECTED IN ESG AND SUSTAINABLE STRATEGIES

ESG and sustainable investing should prove the dominant investment theme of the next decade. Unfortunately, today's most popular ESG strategies are underexposed to the very asset class, infrastructure, that will build the backbone of our energy transition, lead our environmental stewardship, and enable economic growth with a far more efficient carbon footprint. We find and elaborate in this paper that:

- The top global ESG funds have 5% exposure to global listed infrastructure, even though its companies will invest trillions in capital to enable the clean energy transition and lead the sustainability initiatives that investors care about most.
- Clean-tech ETFs, which offer exposure to sustainability, also tend to over-allocate to commoditized industries with a history of volatile earnings and returns.
- An integrated ESG approach to listed infrastructure, an asset class with steady rates of return and clear ESG themes, is an essential and underrepresented component in global sustainable portfolios.

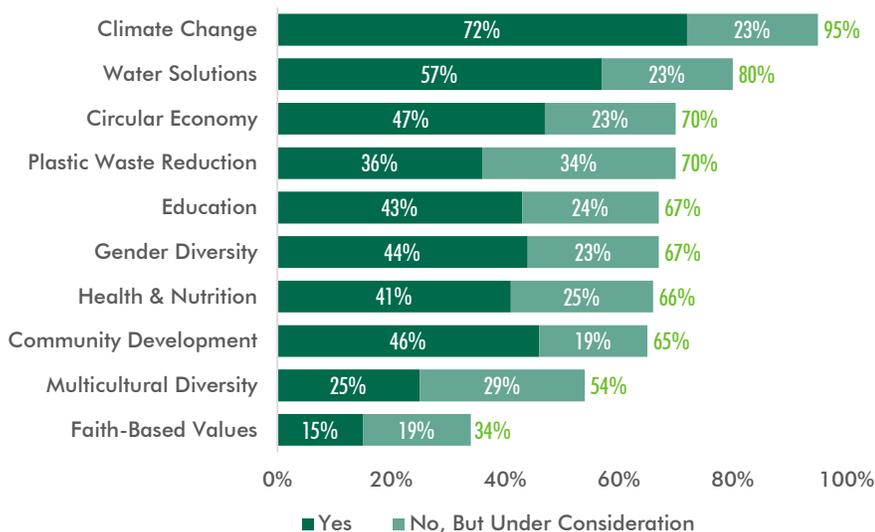


Source: MSCI, IRENA 2020 Global Renewables Outlook, and CBRE Clarion. ESG exposure in infra represents cross holdings between the 20 largest ESG funds as ranked by MSCI in April 2021 and the FTSE 50/50 Global Core Infrastructure Index. Infra's share of decarbonization spending represents the share of renewables, transmission, and infrastructure spending required to achieve decarbonization per IRENA forecasts.

THE RISE OF ESG AND SUSTAINABLE INVESTMENT

Over the last several years, no other theme has seen such asset growth as ESG. In the second quarter, sustainable fund assets grew to \$2.24trn, more than double where they started 2020.¹ We see the market as continuing to explode: today, 95% of institutions and high net worth millennials are interested in sustainability and integrating ESG into their investments. The coming shift in asset allocation, as a result of the millennial cohort, should not be underestimated. We believe that the shift will drive capital flows to the causes they care most about: climate change and environmental stewardship.

Percentage of Respondents Indicating Topic as Key Concern in Investments



Listed infrastructure offers an unparalleled exposure to climate change and environmental stewardship, issues that are increasingly important to ESG investors.

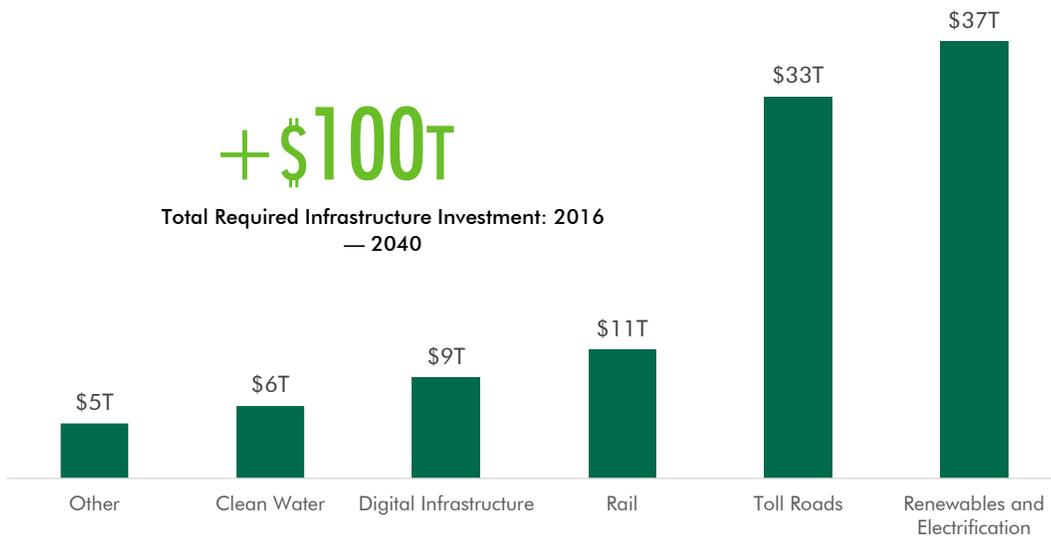
Source: Morgan Stanley, Sustainable Signals 2020.

WHY ESG NEEDS GLOBAL LISTED INFRASTRUCTURE

Infrastructure is uniquely positioned to lead and financially benefit from global sustainability initiatives. Electric utility companies are at the forefront of net zero action— they are installing solar modules, constructing wind turbines, and upgrading transmission lines to charge EVs and convert our heating to electricity. Meanwhile, these same utilities are pushing aggressively to shutter high-carbon fossil-based generating stations like coal fired power plants. Water utilities upgrade antiquated lead pipes and filter waste to provide clean drinking water. In telecommuting and edge computing, data centers and cell towers reduce scope 3 emissions and optimize logistics, while rails and roads invest to lower the need for long-haul trucking (producing 75% less GHG in the process) and to reduce congestion.

Because of these investments, infrastructure companies should grow their cash flow *substantially and sustainably*. Over the next two decades, we expect over \$100trn in investments across the utility, water, digital infrastructure, and transport sectors. Investors seeking sustainability and ESG, with a desire to make an impact with their capital, should consider the suite of infrastructure companies that will control the initiatives they care about, and which will grow sustainably into our future.

¹Morningstar, Global Sustainable Fund Flows: Q2 2021 in Review, July 2021.



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Source: Global Infrastructure Hub, International Renewable Energy Agency (IRENA) and CBRE Clarion, June 2021.

ESG FUNDS LACK LISTED INFRASTRUCTURE, WHILE CLEAN SECTOR OPTIONS ARE LOWER QUALITY

Given infrastructure’s central role in achieving global sustainability goals, it’s unfortunate that major ESG funds allocate so little to the asset class. All in, the top 20 global ESG funds have only 5% exposure to companies leading environmental stewardship and energy transition, while they have a 33% exposure to tech and communications services. This is a clear shortcoming for investors who wish to prioritize climate change, as the companies in listed infrastructure are leading industries that are spending half of every dollar on decarbonization over the next several decades. As an anecdote, one of the largest renewable developers in the world, NextEra Energy, commands a \$160bln market cap but still only appears in a minority of ESG funds, whereas Alphabet and Microsoft dominate the lists. While not commenting directly on Microsoft or Google, we would hazard that NextEra, which owns a >24GW renewable portfolio that should double in three years², will build more clean energy than the creators of Windows 95 and Gmail.

²Based on the NEE Supplemental Resources packages as of 6/30/2021 outlining generation across Florida Power and Light, Gulf Power, and Nextera Energy Resources. Forward expectations based on Energy Resources Development Program as of August 2021.

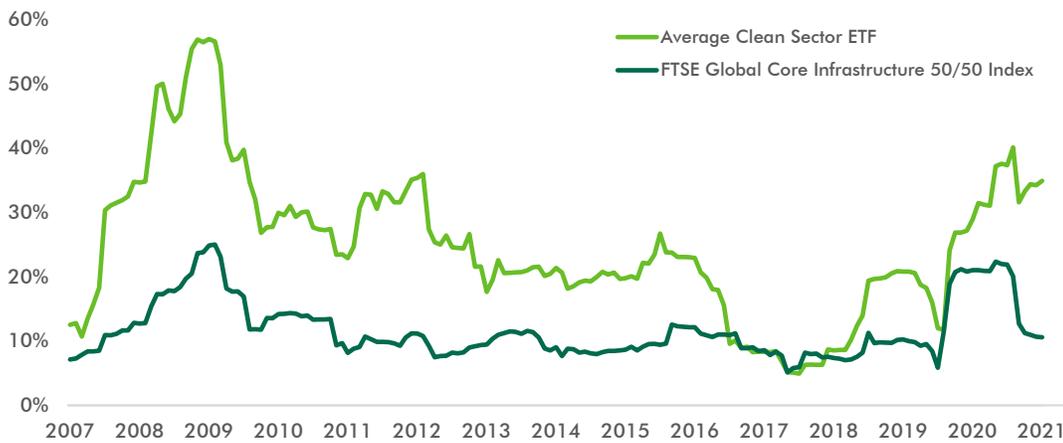


When we put aside broad ESG strategies, and examine ESG and clean tech ETFs, we find a larger exposure to energy transition, but also a concentration to businesses with uncertain financial futures. The more popular ETFs have roughly 50% exposure to solar installers, manufacturers, wind turbines, and clean EVs—which have a history of booms and busts. By contrast, listed infrastructure companies either have long-term contracts or regulated rates of return, which provide stability to its cash flow. Cyclical clean tech tends to make money on energy transition only once, with each sale of a car or solar panel, whereas listed infrastructure will earn on a renewable asset for years. Tesla and the module makers might be the hares in an energy transition race, but infrastructure is the tortoise: it is the steady and secure way to invest in energy transition while offering an attractive and growing income yield.

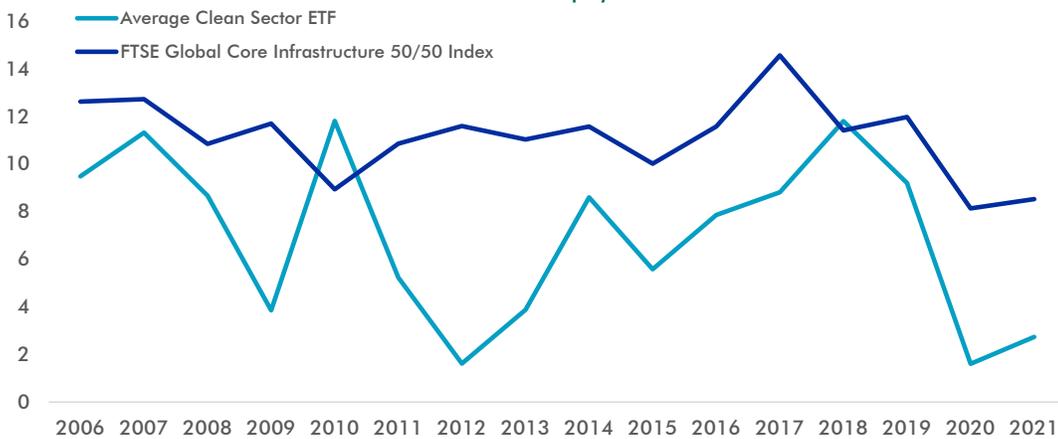
Clean tech tends to make money on energy transition only once, whereas listed infrastructure earns long term returns.

Compared to Infrastructure, Clean Sector Funds Have Seen Dramatic Volatility in Total Return and in Profitability

Comparative Rolling 1 Year Volatility



Return on Equity



Source: Rolling 1 Year Volatility and Historical ROE of the MSCI Global Impact ETF, iShares Global Clean Energy ETF and Invesco Wilderhill Clean Energy ETF vs. the FTSE Global Core Infrastructure 50/50 Index.

THE BENEFITS OF ESG INTEGRATION FOR INVESTING IN LISTED INFRASTRUCTURE

At CBRE, we believe that ESG factors are intrinsic to the assets underpinning the listed infrastructure market. Our companies are exposed to unique ESG risks and opportunities. Infrastructure assets cost billions to build and run for decades. They impact society every day. They are exposed to physical risks (such as wildfires, flooding, and earthquakes) and transition (obsolescence) risks. At the same time, the opportunities for growth from the deployment of renewables and the upgrade of energy grids are tremendous. Socially, infrastructure has a powerful impact on community health, safety, and well-being, while in governance, infrastructure assets tend to split corporate ownership, which creates opportunities for conflicts and shareholder misalignment.

CBRE considers ESG issues not only to build an ESG score, but also to drive valuation: our underwriting affects company growth rates, cost of capital, and intrinsic valuation. We choose to emphasize investments with secular, sustainable, growth themes, while our analysts actively engage with management to understand ESG strategy and convey best practices important to CBRE and our investors. Key areas of focus for our assessment of infrastructure and our integration of ESG include:

Key ESG Considerations for Infrastructure:

ENVIRONMENTAL

- Physical risks
- Environmental policy mandate impact
- Energy transition risks & opportunities

SOCIAL

- Project-level impacts to community
- Regulatory impacts to consumers
- Community health, safety & well-being

GOVERNANCE

- Corporate structures & conflicts of interest
- Remuneration/alignment
- Bribery/corruption

Engagement with Holdings

- Engage companies to understand their ESG strategy
- Convey the practices which are important to CBRE
- Encourage companies to apply best practices & enhance disclosure

ESG Process Integration:



ESG Proprietary Scoring & Company Assessment

- Analysts drive ESG score
- Affects modeled cost of capital
- Influences company growth rates

CONCLUSION

When we examine the sustainable investment market, and consider what investors care about most, we see global listed infrastructure as an essential, and under-represented, asset class for ESG portfolios. Listed infrastructure offers an unparalleled exposure to environmental stewardship and energy transition, with a chance for investors to make an impact while earning a compelling total return derived from secure cash flows that should grow for decades. We find that an integrated ESG approach to infrastructure aligns portfolios with sustainability goals and captures important fundamentals that are unique to the asset class. In the next several years, we are excited to see infrastructure grow alongside and within sustainable investment strategies.

ABOUT CBRE CLARION SECURITIES

CBRE Clarion Securities (CBRE) is a global investment management firm specializing in the management of listed real asset securities including real estate, infrastructure, and midstream energy. CBRE Clarion manages client portfolios with a focus on generating attractive risk-adjusted returns through a total return and income focused strategies. Headquartered near Philadelphia, Pennsylvania, the firm has staff in offices in the United States, United Kingdom, Hong Kong, Japan, and Australia.

The global transfer of ideas, in-depth local market research, and market intelligence distinguishes CBRE. Our team of dedicated listed real asset investment professionals draws upon the research and resources of CBRE's global organization. Our global perspective and local infrastructure and real estate market insight combined with our disciplined investment approach, enhance our teams' ability to underwrite risks and capitalize on potential opportunities.

CBRE is the listed equity management arm of CBRE Global Investors, a global real asset investment firm sponsoring investment programs across real estate, infrastructure, and private equity.

IMPORTANT DISCLOSURES

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Past performance of various investment strategies, sectors, vehicles and indices are not indicative of future results. Investing in infrastructure securities involves risk including potential loss of principal. Infrastructure equities are subject to risks similar to those associated with the direct ownership of infrastructure assets. Portfolios concentrated in infrastructure securities may experience price volatility and other risks associated with non-diversification. While equities may offer the potential for greater long-term growth than some debt securities, they generally have higher volatility. International investments may involve risk of capital loss from unfavorable fluctuation in currency values, from differences in generally accepted accounting principles, or from economic or political instability in other nations. There is no guarantee that risk can be managed successfully. There are no assurances performance will match or outperform any particular benchmark. Indices are unmanaged and not available for direct investment.

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