The shape of transition

by Beth Mattson-Teig

Investors see an evolving energy-transition market with a wider range of opportunities

The global economy is pushing towards a goal of global net-zero carbon emissions by 2050. According to the International Energy Agency (IEA), achieving that goal is likely to require nearly $100 trillion in new investment. Whether or not that is achievable remains to be seen, but capital flows into the transition energy market are clearly accelerating.

"Financing the transition is probably the dominant global investment theme being seen in infrastructure investment at the moment — and likely for the next decade or so," says Alan Synnott, managing director and global head of research and product strategy for BlackRock Infrastructure and Real Estate. BlackRock has been active in sustainable-energy investing. Since the creation of the infrastructure team within BlackRock Alternatives in 2011, the group has made 90 different infrastructure investments throughout 17 countries in support of the transition, deploying $11.8 billion of capital.

BlackRock announced in late October that it had raised $4.5 billion in initial investor commitments for BlackRock Global Infrastructure Fund IV, achieving more than half of the fund's $7.5 billion target size at first closing. The fund is the fourth vintage in BlackRock's flagship global diversified infrastructure equity fund series and seeks to capitalize on the long-term trends of decarbonization, decentralization and digitalization.

BlackRock is just one of a growing number of sponsors raising megafunds with capital targeting transition-energy infrastructure. Fundraising success points to a clear trend of global capital that has been flowing away from traditional fossil fuels into clean energy in recent years. "This isn't only a function of sustainability and green initiatives, but is also due to past disappointment from

the overinvestment in fossil fuels and shale before 2015," says Alex Leung, infrastructure analyst, research and strategy at UBS. According to the IEA, global clean energy investments have exceeded $1 trillion per year since 2016, compared with investments in fossil fuels of $900 billion or lower — and that divergence is only growing. The IEA is forecasting that clean energy investments in 2022 will be almost $1.4 trillion, versus about $800 billion for fossil fuels.

CAPITAL FLOWS ACCELERATE

Investors are finding new opportunities, along with a massive spike in renewable project growth over the past two years. One of the positive aspects of COVID-19 was recovery spending, in conjunction with an increased focus on climate initiatives. "These two things together created a bullish market for renewables, and this has only been made more acute by Russia's invasion of Ukraine and the energy crisis that is going on around the globe that is leading many people to look towards renewables and more energy diversification," says Thomas van Lanschot, head of power and renewables with Fitch Solutions in London. Government action is providing an added tailwind for energy transition initiatives with policies such as the Inflation Reduction Act in the United States and RE-Power EU in Europe.

Energy transition is benefiting from growing demand for sustainable investment in general. According to BlackRock, investors are allocating capital to sustainable strategies at six times the growth rate of traditional investments. Additionally, fund strategies are continuing to evolve. Initially, BlackRock Alternative's clean energy investment strategy focused on onshore wind and solar in North America and Western Europe. Today, the company is investing in a wide variety of infrastructure across the globe, including

natural gas, liquid natural gas (LNG) transport, carbon capture, electric vehicle (EV) charging, battery storage and smart metering, among others.

"Our current strategies in the transition-energy infrastructure market have a broader investment canvas because the entirety of the transition finance universe has matured and enabled us to deliver those predictable revenue and income streams to clients," says Synnott. Ten years ago, the bulk of investment was in wind and solar and gas infrastructure. The clean energy sector has matured over the past decade, which is creating opportunities in other sectors. For example, BlackRock recently invested in a large-scale partnership with Akaysha Energy, which has been selected for the Waratah Super Battery project in New South Wales, Australia. BlackRock also has made a sizable investment in EV charging networks in Europe through a partnership with Ionity. Ionity now operates more than 1,500 charging points in 24 countries across Europe and could potentially service 40 million vehicles by 2030.

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Evolving energy-transition strategies also reflect some key changes that have occurred in the past few years. "First, energy-transition strategies have shifted away from plain vanilla renewable-energy projects with power-purchase agreements [PPAs] to more merchant exposure," notes Leung. In addition, investments have moved away from operational projects to broader renewable-energy platforms, where investors are betting on management teams that can drive growth from a pipeline of future projects, he says. In addition, strategies are embracing newer technologies, such as energy storage, hydrogen, renewable natural gas and carbon capture, as there is increased conviction that these investments will further de-risk and become more mainstream in the long term, especially with the policy tailwinds, adds Leung.

EXPANSION FUELS EVOLVING STRATEGIES

Although there is more capital coming into the energy transition space, there also are more investment opportunities that are being driven by innovation, new technologies and energy-transition infrastructure that has become more cost competitive. Ridgewood Infrastructure is one group that focuses on thematic investing around sustainability and decarbonization. As part of that focus, the company formed Environmental Infrastructure Partners, a joint venture partnership with Sustainability Partners that owns sustainable water, energy efficiency, transportation, communications and other infrastructure throughout the United States.

The JV entity tends to focus on "overlooked" areas of the transition energy market at the smaller end, which lends itself to good investment opportunities and the ability to find value, according to Sam Lissner, a principal at Ridgewood Infrastructure and lead of the firm's sustainability and ESG efforts. For example, it has invested in EV charging infrastructure, as well as water resource conservation projects that incorporate state-of-the-art sustainability infrastructure. "We target sustainability infrastructure that is relatively smaller scale but still very much part of the energy transition," he says.

Ridgewood also owns an energy efficiency company called Ecosave that focuses on providing infrastructure solutions in the commercial and industrial market that reduce energy consumption and drive down energy costs. "Energy efficiency is an area we consider to be relatively lower-hanging fruit in the energy transition. It is sometimes overlooked because it tends to be smaller scale and less visible than renewable power projects," says Lissner. However, energy efficiency under the right circumstances with the right counterparties, the right infrastructure and the right framework is really compelling, he adds.

Infracapital is another firm that invests across a variety of sustainable infrastructure and energy-transition assets, such as solar, wind, thermal battery storage, EV charging and energy-from-waste among other investments. There is a wide range of energy-transition assets, depending on the technology, the commercial opportunity and also the jurisdiction, says

Wael Elkhouly, head of asset management at Infracapital. "We try not to be too prescriptive in looking at energy-transition assets. We're looking at opportunities as they arise and proceed when an opportunity ticks a number of boxes."

A key factor that influences Infracapital's pursuit of an investment is whether the opportunity has a certain commercial definition and not only an interesting technology. An example of that is EV charging. The firm started looking at the sector eight years ago. "We didn't enter into that sector at the time, because although the technology was sound and interesting, the market hadn't developed yet to allow for some definition of the commercial structure," says Elkhouly. For example, what do you charge the customer, and how is the market allowing for private investors to enter the market? "It was very nascent at the time," he says. However, more definition has now been developed into the market in terms of costs, revenues and the competitive landscape, he adds.

NAVIGATING MARKET CHALLENGES

Fund managers are mindful of the opportunities, as well as the challenges, that exist within the energy-transition sector. Some of the risks include rising costs and competitive pressures that can impact pricing and unproven technologies.

"We like to pursue energy-transition opportunities, but at the same time we need to drive certain investment outcomes in terms of return and risk for our clients, most of whom are pension plans looking for certain protection," says Elkhouly. "Part of that is a need to balance the temptation to pursue new and emerging subsectors with the need to avoid the risk of investments where the technology is not sufficiently proven." Looking forward, there are also likely going to be some sectors where pricing might become aggressive to the point that returns won't be commensurate with the risks involved.

Given all the hype in energy transition, another big challenge is competition, notes Leung. "This could be asset-specific, where potential overcapacity could cannibalize project economics, or it could be deal-specific, where you need to pay a high premium to close a transaction due to the large number of bidders," he says. "Luckily, the market is growing so fast that it should be able to absorb all the different players, especially when we are talking about trillions of dollars of investments that are needed in just a few years."

Rising interest rates and inflationary impacts on materials are putting pressure on returns and the business case for some segments of the markets, including solar and wind projects. Although operating expenditures and efficiency over time is improving as renewable energy sectors mature, capital expenditures and material costs are near-term issues, notes van Lanschot. "Overall, we expect to see a sliding price of renewables, but in the near term, we do see a very high-pressured capex environment, and we think there are going to be a lot of materials issues," he says.

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For example, the cost of metals used to build wind turbines — steel, copper, nickel and iron ore — are significantly inflated at levels 60 percent to 80 percent above where they were in 2020. Prices also are trending higher for the main material used to make solar panels, poly silicone, with prices that reflect a roughly seven-fold increase since 2018. "There is a lot of head scratching going around with material prices this high, but there is a lot of policy around production, which should bring these prices down," says van Lanschot.

The surge in building renewable projects globally also put pressure on global supply. Markets across the globe are ramping up production of solar and wind, including China, India, Europe and the United States. "So, the question becomes are we going to see elements of resource nationalism?" asks van Lanschot. If countries decide to hold materials for their own domestic use until production is sufficiently online, it could create supply issues that will impact both pricing and timing of project completion, he adds. Nevertheless, challenges do not appear to be deterring the rising flow of capital into the energy-transition marketplace. ❖

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