Igneo Infrastructure Partners

Wind, LNG, hydrogen, solar — A checkup on the U.S. renewable-energy investment market

Recently, **Chase McWhorter,** Institutional Real Estate, Inc.'s managing director, Americas, spoke with **John DiMarco,** managing director, Global Infrastructure Investments, and **John Ma,** partner, both of Igneo Infrastructure Partners. Following is an excerpt of that conversation.

As we emerge from the pandemic, and with Russia's invasion of Ukraine and its global ramifications, can you describe the environment for renewable-energy generation in the United States?

John DiMarco: Since the onset of COVID-19, we have seen a sharp upturn in valuations for renewable-energy assets, and we certainly haven't seen those fall due to the Ukraine situation. If anything, the invasion of Ukraine has allowed countries to take a hard look at their own energy sourcing. In terms of the prospects for renewable energy, it has only increased the tension on the sector. The other dynamic is the effect of rising interest rates, as the renewables industry tends to be competitive from a valuation perspective and fairly dependent on third-party cost of capital.

How have the pandemic and geopolitical disruptions impacted development and investment in offshore wind, specifically in the United States?

DiMarco: The market forces advancing offshore wind originated years ago, particularly in countries that benefit from good offshore- and onshore-wind regimes. On top of that impetus, world events, such as the invasion of Ukraine, are driving home the necessity of energy security in the United States and abroad. The larger benefit to the offshore-wind industry has been the changing administration. The Biden administration has been far more supportive of the Bureau of Ocean Energy Management and opening new federal leases for potential offshore wind. At the same time, and independent of the administration's actions, we have seen a bit of an "arms race" among some of the turbine suppliers to increase scale and efficiency of offshore-wind turbines, and the amount of energy they can capture is growing.

John Ma: While there is a lot of enthusiasm for the long-term prospects for the development of the offshore-wind industry in the United States, there are challenges, as well, in the supply chain and logistics. The Jones Act restrictions in the United States currently put some constraints on the development of offshore wind. I am confident the market here in the United States will adapt to it, but there is some work ahead before a large-scale build-out of offshore wind.

What is the environment like now for gas-fired energy generation?

DiMarco: From an investor perspective, ESG and carbon reduction concerns remain at the forefront. During the past couple of years, a number of investors declined to participate in the sector due to those concerns. We think there will be some backpedaling on that from some investors, as gas continues to be a needed fuel in large portions of this country. The development portion of the power sector is quite focused on renewables, and it has been for some time. There is some limited gas development, but the story of power-industry development has largely transitioned to be the story of renewable-power development.

Ma: A challenge is that, as an investor, we have seen some opportunities in gas in the United States where risk-adjusted returns look attractive, but we, along with others, recognize there are high emissions associated with these plans. We are not in the camp of "absolutely no," but we want to show a credible pathway to reducing that carbon emissions footprint over time, and finding that balance is challenging. You may find good-quality assets that are good, in part, because they are well-contracted for a longer period of time, and in a market where gas is going to play an important role for a while, in the transition away from coal to more renewable resources. But because of that longer-term, contracted profile, that pathway to reduction and transition may be longer in nature.

How have events in the past couple of years, as well as the evolving situation in Ukraine, affected liquefied natural gas?

DiMarco: Prior to Russia's invasion of Ukraine, there was a path for additional LNG, but it was less certain than now. The idea of exporting LNG to Europe had not been considered too closely, given the higher pricing that can be achieved in Asia and the fact that Europe had a physically, if not politically, secure source of gas from Russia. Obviously, that has changed considerably since February, and there is now a renewed focus on how the U.S. natural-gas industry can help provide energy security to Europe and whether there is an economic pathway to deliver it. Building out LNG export and import terminals is not a quick exercise, but with the situation in Ukraine, countries are looking to prioritize energy security over the long term.

Shifting to hydrogen, what are your views on hydrogen and whether it is investable now?

DiMarco: The investment community is still trying to figure out exactly how and when to participate. There is certainly a lot of money being considered for the sector, and I think there will be strong applications of hydrogen over the long run, even while there are other areas for which it may never make sense. Much of the decision making comes down to cost, but there are also logistical and practical limitations that need to be considered, such as the transportation costs, the types of pipelines that can be used and what the economic pathway is to decarbonize. But it is certainly an area of considerable focus.

Ma: Given the mandates and strategies we have right now, it is a bit early, but it is something we are tracking closely. It ties in a bit to the discussion we just had on the outlook for gas-fired generation in the United States and elsewhere. There is technology available to convert it and lower the carbon footprint if the fuel were switched to hydrogen, which I think is technically feasible, but it is early in terms of proving that out at a commercial level.

Do you think hydrogen is 20 years from now? 10 years?

DiMarco: The technology is here. It is more about being able to get to the right levelized cost of energy through implementation of that technology and scale. When you think about running hydrogen through what would otherwise be a traditional fossil plant and replacing natural gas, the economics of a plant generating hydrogen itself, independent of fuel, may make sense. The equipment manufacturers are putting together models able to run on hydrogen or some portion of hydrogen, and it certainly requires some adjustments. The bigger question is, where does that hydrogen come from? To the extent it is coming from a carbon-intensive process, it becomes a less significant story in decarbonizing. If it is generated through renewable-energy powering electrolyzers, that is a much cleaner story. But then you need to think about the cost of producing that hydrogen. It is about linking all the cost components of the value chain and coming to a levelized cost of energy that is competitive, while considering the capacity elements a dispatchable clean source can provide. It is hard to say how long this may take, but there is a lot of money and attention going through the sector. Considering solar, there was a decade of significant discussion, then the install costs hit an inflection point, and then suddenly, in 2011–2012, there was an onslaught of solar. That has continued unabated, but previously — from 2005 to 2010 — while solar was a huge discussion point, not a lot was getting done. The same pattern happened with battery storage installations. It is hard to tell if hydrogen will follow that exact same timeline, but once it becomes economically practical, the commercialization may come all at once.

What impacts are you seeing on supply chains following COVID-19 lockdowns?

DiMarco: The renewable industry has faced some headwinds from supply-chain issues, induced by COVID-19 and the broader stop/start nature of industries that occurred during the pandemic. Those aftershocks have made their way through a lot of different industries. In renewables, we have seen that most acutely on the battery equipment side, where there are long lead times, uncertainty around shipping timing, and payment terms have gravitated toward the seller's favor. There are some similar effects on the wind and solar side — maybe not as stringently or as strictly as on the battery side — but it is being felt across the supply chain on the renewable-energy side. Given constraints in supply, we see a net benefit likely for established developers and operators in the renewable space because they have scale, relationships and a track record in an equipment-supply-constrained environment. Having those relationships really helps, as opposed to coming in as an upstart developer without an established history.

Post-pandemic, what are your expectations for transportation and logistics assets?

Ma: Demand has been strong, and freight-related transportation infrastructure, resilient. As we emerge out of the pandemic, shippers and manufacturers are gravitating to more resilient supply chains rather than just the lowest-cost providers. Post-pandemic, I expect more long-term shifts to investment in and demand for strong freight-related transportation logistics. In the U.S. port sector, even as we emerge from the pandemic and headlines of backlogs, the ports are gearing up for labor negotiations on the West Coast that may lead to disruptions. Some shippers want to hedge against the risk of further disruption this summer and are shifting some of their volume to the East Coast. In the rail industry, there are some hearings taking place in Washington, D.C., in which manufacturers and shippers and the Surface Transportation Board seem to be taking aim at the U.S. Class I rail industry service shortfalls. The Class I rail industry has been on a decade-long initiative toward precision scheduled railroading, trying to streamline service and improve operating efficiency, but it has led to service issues. Particularly with trucker shortages and fuel prices rising, rail should be a fantastic alternative, but the Class I sector is challenged by reliability of service. We think the shoreline industry is well positioned for that because they aim to provide that close customer relationship and better service. The broader theme here is that everyone is crying out for high-quality, reliable service.

What do you see from Washington, D.C., in terms of infrastructure policy, and does this impact your investment strategy?

Ma: There is inconsistency coming out of Washington, D.C., right now, which isn't helping in certain sectors. A lot of infrastructure development in the United States is controlled at the state and local levels, and that goes across transportation into power. The federal government sits as an overlay on top of that, but it rarely can dictate specific outcomes in specific regions. Policy at the federal level is important, and the current administration is very supportive of transitioning to more renewables, but at the same time, we have the U.S. Department of Commerce Anti-Circumvention proceeding, which has disrupted the solar development industry. In terms of the policy-making side of government, there is a lot of optimism around some of the provisions of the Build Back Better package — some administrators are still hopeful that key aspects of that could be pushed through this year. But overall, there has been a lack of strong consensus and action out of Washington, D.C.

CONTRIBUTORS

John DiMarco
Managing Director, Global Infrastructure Investments
Igneo Infrastructure Partners

John Ma
Partner
Igneo Infrastructure Partners

CORPORATE OVERVIEW

Igneo Infrastructure Partners, which manages US$14.8 billion (as of Dec. 31, 2021), is the direct infrastructure team of **First Sentier Group** and has a 30-year investment track record. While our name has changed, our transparent partnership-based approach to creating long-term outcomes for our clients is unchanged.

CORPORATE CONTACT

Hillary Ripley, Business Development
Igneo Infrastructure Partners
hillary.ripley@igneoip.com | www.igneoip.com

igneo Infrastructure Partners

This article presents the authors' opinions reflecting current market conditions. It has been prepared for informational and educational purposes only and should not be considered as investment advice or as a recommendation of any particular security, strategy or investment product.