Powering a Carbon-Free Future

The U.S. wants to eliminate fossil fuels from its energy grid within the next 15 years. Private placement debt markets have a crucial role to play in that effort.

When President Joe Biden was campaigning for the presidency last year, he outlined a bold goal: to make the United States' energy grid 100% carbon-free by 2050. Since taking office in January, his deadline has grown even bolder, shortened by 15 years to 2035. Far-reaching and nothing short of ambitious, Biden's goal accounts for why the administration's $2 trillion infrastructure plan has been characterized as a climate-change plan.

The trend toward green energy long predates President Biden, of course. In 2019, renewable energy surpassed coal as a source of power generation in the U.S. for the first time in more than 130 years. But to even come close to reaching that 2035 target, relying only on traditional renewables (such as solar and onshore wind) won't cut it, says John Tanyeri, head of infrastructure and project finance at MetLife Investment Management. A whole new set of next-generation technologies will be required. "What you're now seeing is a dramatic shift from traditional renewable power to new energy transition assets such as electric vehicles, smart grids, offshore wind, hydrogen and tidal power. These are all new sectors. And all of that is going to be needed for the Biden administration to meet its goal," he says.

Still, an exciting moon-shot quality to the carbon-free objective has energized the infrastructure-investment community. MetLife Investment Management estimates that as much as $90 billion will have to be spent on transmission infrastructure alone, Tanyeri says—the lines and facilities needed to move power from distant locations to cities, and at least a billion will be needed to construct energy-storage facilities—the cutting-edge batteries and fuel cells that will be necessary for achieving consistent power supply even when the winds don't blow and the sun doesn't shine.

"I believe the U.S. needs to think about utilizing public-private partnerships more, not subsidizing assets, but finding a way to privatize assets. It is absolutely necessary if the U.S. is to close the infrastructure gap permanently." — John Tanyeri, Head of Infrastructure and Project Finance, MetLife Investment Management

Core infrastructure projects, such as roads and bridges, are mostly funded in the U.S. by public funds raised through taxes. But energy infrastructure has typically used private debt financing and public-private partnerships. It will likely be no different in this brave new world, Tanyeri says. The good news is that, coming out of an economy poised for a post-pandemic rebound and with interest rates on the rise, institutional investors are "clamoring for deal flow," Tanyeri says. "So much money is sitting on the sidelines that there just aren't enough assets out there to satisfy demand."

Investing in next-generation renewable projects comes with risks, however. Take one of the most promising areas: offshore wind. Large-scale projects are planned for the Gulf of Mexico, the North Atlantic off New Jersey and Long Island and elsewhere. President Biden's plan aims to build enough

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offshore wind farms to produce more than 30 gigawatts of electricity by 2030, which could power more than 10 million households. Pioneered in Europe, these colossal windmills that rise from the sea, often miles from land, have only been in use for less than 10 years. No one really knows how well or how long the turbines will stand up to the rigors of the storm-lashed open seas. Just constructing and installing these towering structures is a herculean effort, lasting several years and fraught with dangers.

Partly because institutional lenders are so keen to put their money into next-generation renewables, their tolerance for risk has increased. Still, they are finding ways to try and mitigate some of the risks associated with these relatively unproven technologies: a larger major maintenance reserve fund coupled with a staggered amortization schedule for an offshore wind farm, for example, so that more of the debt is paid down later in its lifespan, when it's at its most efficient and productive. "You provide time for the asset to work out its kinks," Tanyeri says.

In the end, Tanyeri believes, the private placement debt market is well positioned and eager to finance the world's shift to renewable energy. "One thing that gets lost is that it's really a risk transfer. The risk of owning and operating the asset transfers from public hands to private hands."

Sources:

"U.S. Renewable Energy Consumption Surpasses Coal for the First Time in Over 130 Years," U.S. Energy Information Administration, May 28, 2020.

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