



“...WE REMAIN VERY
CONSTRUCTIVE
ON THE GLOBAL
OUTLOOK FOR
CLEAN ENERGY...”

2021 Recap

Following Joe Biden's presidential win and the Democrats taking the Senate, 2021 began with expectations that the U.S. would follow Europe's lead in adopting a broader clean-energy agenda. However, U.S. policy implementation never materialized during the year.

December 2021 was punctuated by California regulators' proposed changes to net-energy metering and very slim prospects (as of this writing) for the current form of the Biden administration's Build Back Better (BBB) legislation. In addition to these U.S. policy challenges, the clean-energy sector was also impacted by higher interest rates, inflation, supply chain worries, and higher energy prices.

Looking Forward

Despite a rather difficult 2021, we remain very constructive on the global outlook for clean energy into 2022 and long term. In Europe, many of the bigger initiatives were taken in 2021, such as the 'Fit-for-55' framework, the U.N.'s Intergovernmental Panel on Climate Change (IPCC) Assessment Report and COP26 directives. The EU and/or local governments are now expected to establish laws around these directives coinciding with the EU Taxonomy rollout. Also, 2022 should see a ramp-up in EU recovery fund disbursement. Next Generation EU entails €750 billion (€390 billion in grants + €360 billion in loans), which must be disbursed between 2021 and 2026.



These funds are focused on the clean-energy transition and should act as the initial stimulus for significantly more private investment.

In the U.S., while uncertainty around BBB is a setback, we see solid prospects for the clean-energy portion of the legislation. Congress could vote on standalone environmental legislation in 2022 if BBB is broken into its constituent pieces. The key Investment Tax Credit (ITC) and Production Tax Credit (PTC) portions have wide bipartisan support. Both the ITCs and PTCs were extended during the Trump administration when Republicans controlled the Senate. Recent commentary from Sen. Joe Manchin and others suggests that these clean-energy components are feasible. In addition, we expect the proposed changes to net-energy metering in California to end up being relatively benign given commissioner turnover, solar-industry backing, growing battery storage adoption, and calculation assumptions. This should set a reasonable template in the U.S.'s most important jurisdiction for distributed solar.

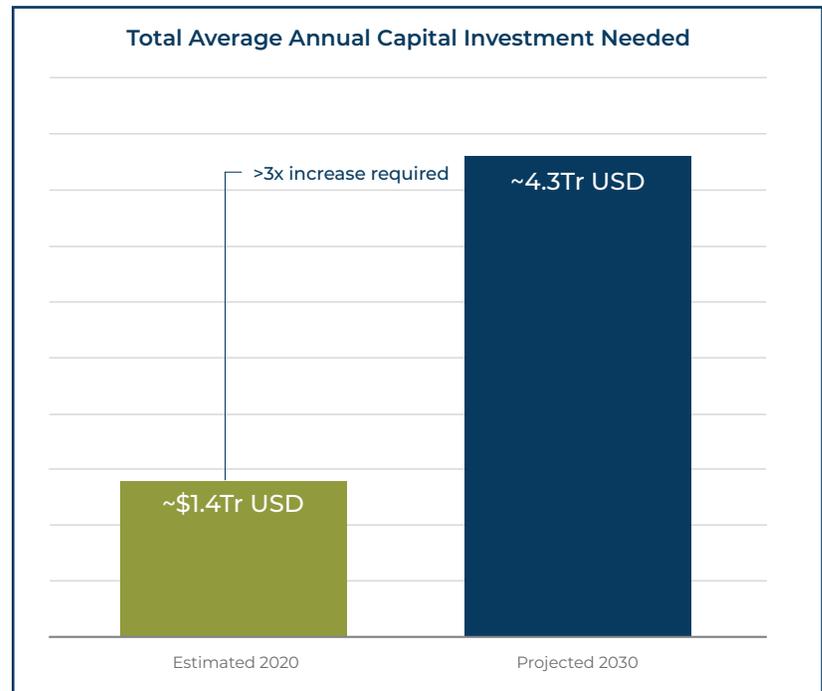
We also expect a continued ramp-up of renewable and clean-energy technologies in 2022, including newer areas such as hydrogen, carbon capture, and storage. Also, energy market structures should continue to advance, including corporate purchased power agreement (PPA) activity for renewables. Overall electrification efforts are expected to move forward as well, including broader adoption of electric vehicles and heat pumps.

Despite this positive outlook we remain cognizant of the headwinds facing clean-energy investments. First, the bounce in global interest rates could weigh on equity markets. Second, the global economy continues to experience cost inflation and supply-chain pressures. Third, the rise in energy prices puts pressure on the U.S. and Europe given the potential ramifications for household affordability. We continue to monitor risks in the form of political intervention, bill 'headroom,' and roll-out delays.



The long-term attraction of clean energy remains intact. We expect a global, long-term capital replacement cycle with decades of growth ahead. Over the next 10 years, the annual investment level could grow more than threefold. This will entail a combination of increased governmental support, technology innovation and disruption, growing adoption, and global proliferation of clean-energy advancements.

Investment Needs in the IEA's "Net Zero by 2050" Scenario Versus Current Levels



Sources: D&P estimates derived in part from International Energy Agency's (IEA's) "Net Zero by 2050 - A Roadmap For the Global Energy Sector," October 2021



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