Moderating prices bolster strong U.S. demand for renewables, finds Edison Energy’s Q3 Global Renewables Market Update

Innovation marks efforts to de-risk contracts, as project inventories fully recover from 2022 lows; enough domestic panels to meet demand by 2030?

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IRVINE, CALIFORNIA, UNITED STATES, October 17, 2023 /EINPresswire.com/ -- Renewable energy project inventories in Q3 posted strong performances for a second straight quarter, the third such jump in a year and a sign that markets have fully recovered from their 2022 slump, according to Edison Energy’s Q3 Global Renewables Market Update. (Edison does business in Europe as Altenex Energy and Alfa Energy.)

The report finds that project inventory growth reached levels last seen in Q1 2022, a recovery driven by utility-scale projects and demand from corporate offtakers.

Meanwhile, impacts of the landmark Inflation Reduction Act of 2022 are starting to be felt, with significant announcements of investments in domestic solar module manufacturing. U.S. panel production capacity is estimated to increase to 48 GW, tripling within two years and rising to 70 GW by the end of 2025. Domestic panel manufacturing could meet domestic demand by 2030, the report projects.

Regionally, the Southwest Power Pool saw an 89% increase in Q3 project inventory, followed by ERCOT in Texas with a 26% increase. The strong performances matched trends in both markets, where project supplies have increased or remained steady. They also signal more widespread growth in project availability, as details of the IRA become clear.

Notable Q3 inventory declines came from PJM and MISO, which saw decreases of 24% and 5% respectively. For the first time since Q2 2022, MISO lost out to ERCOT for the largest market share of projects. The drop extends recent trends in MISO, where availability has fallen for two quarters. Both PJM and MISO face permitting and interconnection delay challenges, which have outweighed trends favoring project availability growth.

Project de-risking continues as demand for Power Purchase Agreements remains high among offtakers focused on meeting carbon reduction goals. As has been true for several quarters, developers are marketing more fully mature projects to offtakers.

The strategy solidifies input costs and minimizes risk from potentially project-killing delays. Reducing the time spent on project due diligence in favor of time spent negotiating agreements has led to faster PPA execution.

PPA offtakers and developers alike are managing the current inflationary environment by seeking to limit unknown project costs. Completing such time-intensive tasks as interconnection studies, permitting approvals, and environmental impact studies before signing a PPA can help lock in EPC pricing agreements, equipment supply agreements, and grid upgrade costs.

PPA prices continued to moderate in Q3, continuing a trend that began in early 2023. Declines came across ERCOT, MISO, PJM, and SPP. Benchmark prices fell for ERCOT solar, MISO wind, and MISO solar in Q3. Meanwhile, PJM solar benchmark PPA prices experienced the largest increases during Q3.

The U.S. median PPA price declined for the second quarter in a row to $58.76. Following the 3% decline posted in Q2, the national median PPA price measured across ERCOT, MISO, PJM, and SPP dropped another 1% in the most recent quarter. The P25 PPA price was $51.80, a 4% decline from the previous quarter. These declines continue the trend of price moderation in 2023 and, in some markets, price decreases.

North American supply chains for modules and turbines faced ongoing headwinds in Q3 that could begin to ease in future quarters, as domestic manufacturing spurred by the IRA comes online and economics improve for turbine manufacturers.

More domestic manufacturing improves the likelihood that PPA offtakers will avoid paying for hefty import tariffs that are set to return in the summer of 2024 on some Chinese modules.

At present, a safe harbor period allows some manufacturers to adjust their supply lines to comply with recent U.S. Department of Commerce findings. Even so, the potential exists for a panel supply crunch next summer, as domestic manufacturing may not be able to ramp up production in time to offset the potential loss of imports due to tariffs. The severity of any supply crunch will depend on how many suppliers are able to certify their products before the safe harbor period ends.

North America’s turbine supply chain also faces challenges that have impacted PPA prices. Recent product quality shortcomings reported by Siemens Gamesa in Q2 could push up shortterm prices and delay projects. The engineering issue, along with continued interest rate pressures, inflation, and logistics issues, have worked against offtakers hoping for lower PPA prices.

Recent federal regulatory action to resolve interconnection problems bodes well for renewables. In July, the Federal Energy Regulatory Commission's (FERC's) four commissioners unanimously approved Order 2023 addressing the years-long interconnection wait time and optimizing the interconnection process.

Key reforms included creation of a first-come, first-served cluster study process; a publicly accessible "heat map" tool of suitable sites for interconnection; firm deadlines and penalties; a standardized study process; and a requirement for transmission providers to consider alternative transmission technologies.

The reforms' success depends on effective implementation, and further reforms likely will be needed to complete the picture. A holistic approach around transmission planning, permitting reform and workforce development would further enhance the interconnection process and ensure the energy system meets consumer demand and readily accommodates still more renewable resources.

The report may be obtained from Edison Energy at https://www.edisonenergy.com/reports-whitepapers/q3-2023-global-renewables-market-update/.

About Edison Energy
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