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COVID-19 PRESENTING STRONG GROWTH OPPORTUNITIES FOR DIGITAL GRID MAINTENANCE SOLUTION PROVIDERS, 2020

Related Thought Leadership: Environment

The digital grid maintenance market is undergoing a period of further integration and technological changes. This study provides an overview of the aspects of software-enabled digital grid maintenance. The market, like many others, is not insulated from the effects of the COVID-19 pandemic. However, while the COVID-19 pandemic initially contributed to a market slowdown, the after-effects are expected to drive grid digitization, especially digital grid maintenance solutions, as utilities look to optimize the usage of their existing workforce, bring in predictive maintenance aspects, and reduce operational expenditures (OPEX). Some key strategic imperatives impacting the market include disruptive technologies, industry convergence, and innovative business models. These comprise digital sensor networks and digitized operational control, supported by advanced analytics, which help create the core of a comprehensive grid maintenance solution. The convergence of pure-play software companies with utilities and grid operation and maintenance (O&M) organizations is also present in the market. Organizations are increasingly looking at a solution-based approach to provide hardware monitoring, software, and services to customers. Some of the factors driving the market are: aging infrastructure combined with rising weather challenges, positive regulatory reforms, shortage of workforce and aging workforce in developed regions (creating a need for automation in grid maintenance), rising deployment of distributed energy resources (DER), and regional collaborations and consortiums.

On the other hand, key factors that are expected to restrict market growth are: poor governance and political instability in many developing regions, investment constraints, and the negative macroeconomic effects of COVID-19. The market brings a number of growth opportunities, including the usage of digital twin simulations to enable optimization in grid O&M activities, AI-enabled maintenance supply chains, and various workforce augmentation initiatives, such as sensor-based asset health monitoring and the deployment of AR/VR technologies to effectively diagnose or support drone deployment. Making inroads into the DER ecosystem is also an opportunity for high growth. There is a fair amount of M&A activities in this market, given the number of established participants and the plethora of software-driven start-ups across regions. This is expected to continue in the near future. Aftersales support, upgrade support, and training initiatives will play a key role in driving sales for market participants. Support in the execution of digital grid maintenance projects and helping ensure continued savings will drive adoption rates in this rapidly evolving market.