

Digital Twin for Performance Prediction of Utility-Scale Solar (Tiami Networks)

- Utility-scale solar farms have a total capacity of 80 GW nationwide and are the third-largest source of the nation's renewable energy generation.
- There is a growing need for more sophisticated methods to predict the performance and output of utility-scale solar facilities.
- Digital twins, a virtual representation of physical assets, environments, and processes, are an emerging technology that could provide significant value for solar plant operators.

Solution: Utility-scale digital twin for real-time performance prediction and monitoring

- Leverage AWS public cloud for advanced models and ML-based prediction.
- Benefits: Continuous prediction updates, outperform traditional modeling methods such as PVSyst.

