California utilities should have used digital twin technology instead of power shutoffs

Northern California's proactive power outages were not necessary last fall. Digital Twin technology can predict utility line failures and turn off power in milliseconds to avoid the potential of sparks igniting the surrounding area.

Digital twin technologies are gaining traction across industries and use cases. Initially devised as a means of monitoring assets and production settings in manufacturing, this technology has quietly seeped into other verticals like hospitality, construction, and building management and soon, electricity delivery.

The premier problem digital twins will solve is predicting power grid failure, which would alleviate the social, economic, and political issues that resulted from efforts to reduce the incidence and degree of catastrophes, property loss, and deaths stemming from downstream effects of power grid failure—such as recurring wildfires.

Digital twins can allay these concerns because they're based on real-time signals from a comprehensive set of factors that could be indicative of power grid woes related to environmental, meteorological, or technology concerns. Moreover, they can deliver accurate predictions for each of these factors well in advance of failure—in some cases as much as 28 days.

Read the full article at PowerGrid International.