SIGAGUARD

New York Power Authority

CASE STUDY

New York Power Authority Cyber security Program

THE CLIENT

The New York Power Authority (NYPA) is the largest state public power organization in the U.S., operating 16 generating facilities and more than 1,400 circuit-miles of transmission lines.

CHALLENGE

NYPA recognizes cyber security as a major issue for utilities and critical infrastructure. As part of a long-range plan to minimize risk, the utility partnered with SIGA OT Solutions Inc. to explore innovative solutions for cyber security, early failure prediction and anomaly detection to ensure risk minimization in the area of cyber security.

SOLUTION

SIGA provided NYPA with direct monitoring of raw electrical signals (Level-0 monitoring), coupled with unique machine learning algorithms that analyze and provide real-time, reliable status of the critical end- devices. Customized anomaly alerts were also provided based on customer requirements and needs.

RESULTS

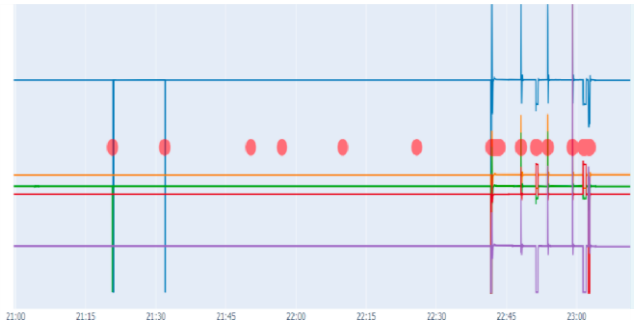
Pilot project results confirmed anomaly detection capabilities, as well as early failure detection. In one instance, SigaGuard alerted operators 11 minutes before other “typical” alerts regarding a system abnormality.

SIGAGUARD

SigaGuard alerts operators 11 minutes before typical alert systems..

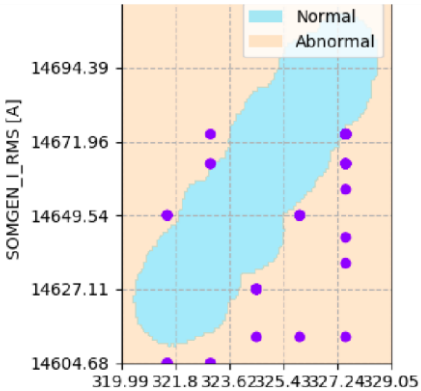
ADDITIONAL BENEFITS:

- ❑ SIGA's approach enabled operators to independently verify and validate sensor readings and confirm that the industrial end-devices that SigaGuard is monitoring were operating as specified.
- ❑ SigaGuard delivered early warning of simulated operation anomalies relative to desired performances and provided an independent means to assure that ICS information was correct, thereby reducing the need for human intervention.
- ❑ Future deployments of SIGA's product will enable operators to gain continuous visibility into additional critical automated physical assets, ensuring risk minimization through real-time monitoring and detection of anomalies caused by misconfigurations, human error, systems malfunctions and cyber attacks.



Monitoring Raw Electrical Signals:
Red Markings Signal System Anomalies

Anomaly Detection Map:
Purple Marking Signal System Anomalies



AUTONOMOUS · RELIABLE · SMART

SIGAGUARD

New York Power Authority

TESTIMONIALS

Amir Samoiloff, SIGA CEO and Co-Founder:

"SIGA's cooperation with NYPA has demonstrated a strong and strategic bond with a major utility in the U.S.at the highest level. This collaboration is thanks to the superior expertise and motivation of the NYPA team. SIGA is looking forward to deepening its partnership with NYPA's elite cyber protection team this year by further integrating SIGA's cyber security solution, SigaGuard, into additional NYPA critical infrastructure centers."

Alan Ettlinger, Sr. Director, Research, Technology Development and Innovation at New York Power Authority:

"NYPA places a priority on preventing any downtime, failure or malfunctions of its mission critical infrastructure, and we invest a great deal of effort and resources to ensure resilience and security. SigaGuard's monitoring system that detects anomalous behavior and provides real-time validation of process data was demonstrated in a substation environment, which is one of our critical assets, and conforms with NYPA's innovative deployment plan in the areas of process resilience and security."

Kenneth (KC) Carnes, VP Critical Secure Services and CISO at New York Power Authority:

"SIGA presented a new technology for cyber security of critical infrastructure and conducted a test on a dataset of a substation's electrical signal behavior. The results showed promise in helping seal our infrastructures from any cyber threat, at Level 0 of any machinery, equipment or process, and we look forward to exploring new options to help enable complete out-of-band protection of NYPA's most critical assets."