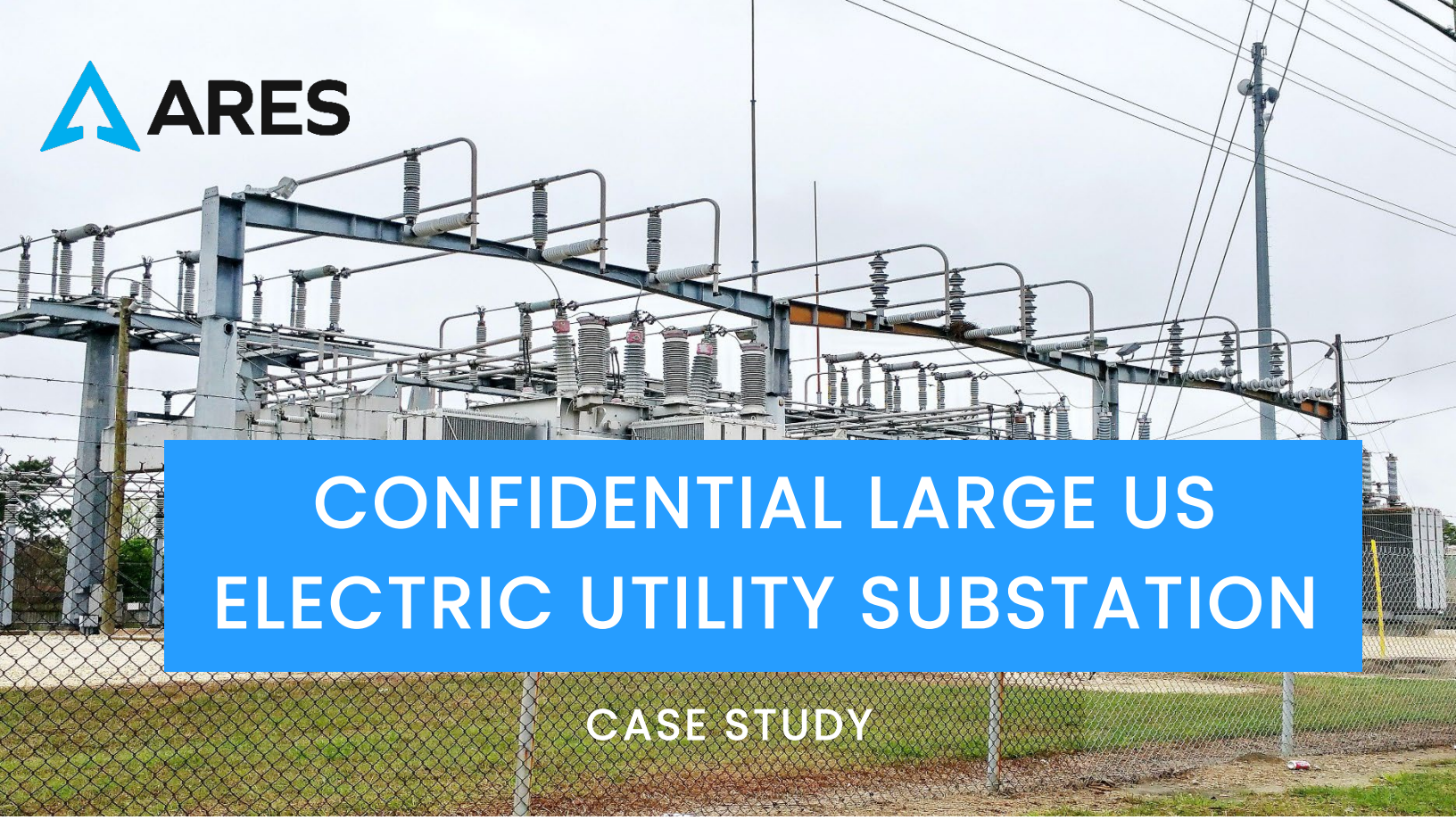

CONFIDENTIAL LARGE US ELECTRIC UTILITY SUBSTATION

CASE STUDY

CASE STUDY SUMMARY

AVERT PS PHYSICAL SECURITY

AVERT Physical Security (AVERT-PS) is unique Security Risk Assessment (SRA) software used to perform a Vulnerability Assessment (VA) of the facility along with providing the capability to visualize, quantify, assess and optimize security posture. This solution's holistic and integrated approach, delivers accurate, measurable, and repeatable assessments of physical security design and operations.

OBJECTIVE

Ensure compliance with NERC-CIP-14-02

Identify and protect Transmission stations and Transmission substations, and their associated primary control centers that ,if rendered inoperable or damaged, could result in instability, uncontrolled separation, or cascading within an interconnection. The utility wanted to address compliance in the most efficient and cost-effective manner.

SOLUTION

3D Digital Twin models of each of the utility's substations were developed and then used by the AVERT-PS modeling and simulation software to establish an initial risk assessment of each facility to establish a baseline. Subsequent risk assessments of each substation were then performed to evaluate proposed physical security posture modifications to identify the benefit and costs associated with the proposed modifications. Each of the proposed modifications were to assure compliance with NERC-CIP-14-02. The proposed modifications included items such as: offsite response time, terrain, sensors packages and non-lethal deterrents.

RESULTS

COST SAVINGS example A new security design was identified and quantified at 3 sites that was $6M USD less than previously proposed designs provided by security subject matter experts.

ROI – The AVERT-PS project for the entire fleet of substations was $1.2M the identified cost savings (as compared to the SME proposed designs) was $61.5M which resulted in an ROI of 5025% With an immediate payback period.