



# Revolutionizing Utility Operations: Turtle’s Technological Breakthrough in Digital Asset Management

## Introduction

In an era of technological advancements geared towards reaching nationwide sustainability goals, the landscape of utility operations is at the forefront of such transformations — namely, a pioneering Northeast utility provider with the goal of boasting the first-ever all-digital facility. Central to this vision was the establishment of an asset health center capable of instantaneously assessing the condition of the utility’s power and transmission facilities.

## Challenge

Utility facilities are composed of intricate infrastructure. Digitizing such facilities is an innovative and highly intricate endeavor that requires close collaboration and project management to complete successfully.







## Solution

Turtle played a pivotal role in bringing this visionary project to fruition. Tasked with creating the digital twins for the utility’s bulk electric assets — including transformers, combustion turbine generators, hydro generators, battery banks, transmission circuit breakers and more—each digital twin was tailored according to the specific nuances of each asset.

A digital twin is a digital replica of a utility’s electrical assets that undergoes continuous monitoring to assess an asset’s expected performance against its live performance. This cutting-edge approach enables proactive maintenance scheduling, reduces operational risks, lowers maintenance costs, and ultimately translates into cost savings for customers.

Powered by over 400 cutting-edge sensors, Turtle engineered the digital twin entity of the

## Infrastructure Modernization Solutions

<b>INDUSTRIAL IT</b> 	<b>INDUSTRIAL SOFTWARE</b> 
<b>FACILITIES AUTOMATION</b> 	<b>INTEGRATION</b> 
<b>IT/OT TECHNOLOGY</b> 	<b>PREDICTIVE ANALYSIS</b> 



assets to track and analyze anomalies in asset performance and trigger alerts to allow administrators to address potential issues preemptively. Expertise in the power industry, coupled with a long-standing strategic partnership with Rockwell Automation providing decades of automation experience, positioned us as the ideal partner for such a highly customized project.

By utilizing digital twins for tracking the health of their electrical assets, the company can better safeguard its facilities, reducing downtime while ensuring uninterrupted service for customers. Moreover, the reduction in operational costs that result from proactive, not reactive, maintenance enables the utility to pass on savings to customers, contributing to enhanced affordability of utilities, and reducing the utility's carbon footprint.

### Why Turtle?

This radical collaboration has not only revolutionized utility operations, but also set a new standard for digital asset management in the industry. By embracing innovative technologies and leveraging decades of expertise, Turtle continues to drive positive change, paving the way for a more sustainable and efficient future by rethinking energy and advancing tomorrow.



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Founded in New York City in 1923, Turtle is a global leader in electrical and industrial distribution, logistics, supply chain solutions, and sustainable energy management. Recognized as a top 10 U.S. electrical distributor by Modern Distribution Management (MDM) and holding a Silver Ecovadis Sustainability rating, our company prioritizes both industry expertise and environmental stewardship. As a fourth-generation, family-owned Certified Women's Business Enterprise (WBE), we are proud of our legacy of over 100 years, driven by radical collaboration and innovative solutions that have consistently earned us an excellent Net Promoter Score (NPS) from our customers.