

Replacing Conventional Surveying with Laser Scanning

The need to obtain critical measurements of substation facilities and structures can often be a costly and unsafe endeavor. In the past, this need had been met through the use of traditional surveying methods which required de-energizing of facilities, man-lifts, and often repeat visits to the job site to capture all of the required data.

In September 2012, ComEd trialed Laser Scanning Technology as part of the decommissioning efforts at Stateline Generating Station.

3D Laser Scanning gathers millions of data points within minutes. From this data, 3D models, 2D drawings and clearance checking can be done to help with identifying maintenance needs, updating drawings or adding new equipment.

During the course of 2 – 10 hour days, Falk-PLI was able to Laser Scan the entire facility and generate a complete virtual point cloud model of the facility. From this data, 27 switches were modeled including buslines, insulators, lattice structures, and bend ratios. Clearances and distance checks were also provided.

The efficiency and speed with which data was collected reduces downtime required for measurement and maintenance, increases response time for unplanned

outages, and reduces the need to put workers at risk near high voltage equipment.





