
Information is Power

Asset management for electric power organizations like NYPA is becoming far more intricate and sophisticated thanks to digital technologies for obtaining real-time data from generation and transmission facilities to enhance their ability to act on potential equipment issues before they become problems.

Joe Kessler, executive vice president and chief operating officer, Utility Operations, at an Oct. 12 evening forum in New York City of the Institute of Asset Management (IAM), cited the imperative of capitalizing on these advances for heightening situational awareness of the status of equipment. He explained how asset management and smart generation and transmission are fundamental elements of the NYPA Strategic Vision 2020 for bolstering our infrastructure and meeting the dynamic conditions of today's energy markets.

Further rounding out the discussion, J.T. Flick, director, Emergency Management (at the podium in the left photo with Len Caputo, program manager, Asset Management), discussed the interworking of asset management and emergency preparedness, and how the appropriate attention to our equipment resources is integral to minimizing the risks associated with various types of emergency events, from weather-related to those that are man-made.

Flexibility is the operative word for measuring the success of our facilities for the transformative changes that are taking hold in New York State's electric power system. Our Niagara and St. Lawrence plants are one example of that in the context of an electric power sector that is being affected by sustained low market prices and additional clean power sources such as wind power.

Kessler noted that Niagara and St. Lawrence have always been used as base-load power sources for operation 24 hours a day. But with changes in energy supplies, including more distributed generation, large-scale renewables and retirement of coal plants, Niagara and St. Lawrence will need to operate differently, with more starts and stops of their turbine-generators and greater generating output variability. That will put additional stress on the equipment and further accentuate the importance of adopting the most advanced asset management technologies and practices for optimizing the reliability of our facilities.

In that vein, we're integrating state-of-the art software, sensors and other tools for providing additional data for improving our asset-management decision-making and ability to recognize and address potential equipment issues ahead of time.

"At the heart of the matter is collecting the relevant data from our operations and making informed decisions on maintenance, repairs and improvements from our predictive analytics," said Kessler. "We're fully on-board at the Power Authority with having the best-in-class tools at our disposal for accomplishing this."



Investing in digital technologies to boost awareness of critical infrastructure was a recurring theme of the IAM meeting, which also included speakers from a technical services firm, Microdesk.

In discussing asset management and emergency preparedness, Flick cited an independent study finding that a dollar spent on risk mitigation for a hazardous event results in \$4 in future benefits, assuming the event occurred. “That’s a pretty good return, underscoring the benefits of building resiliency into critical infrastructure.”

He noted the importance of emergency planners being well-versed on the equipment performance of their organizations and the extent of the vulnerability of those resources to extreme conditions. He also spoke of the significance of having up-to-date records on equipment history for the possibility of federal reimbursement for a portion of the costs of replacing equipment in the event of a catastrophic event.

The Institute of Asset Management is professional organization for those involved in the acquisition, operation and care of physical assets, especially critical infrastructure. NYPA’s Len Caputo is the chair of the IAM’s New York branch.