

Two Titan Transmission Transformers Back on Line

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What is the size of a two-story house, costs \$3 million, and comes with five tractor trailer loads of accessories? It's the new 345 kilovolt (kV) transformer that was installed and put into service at Niagara Mohawk's New Scotland substation located in the greater Albany area.

One of the two transformers at this substation failed in January, igniting a fire that destroyed the transformer and much of the surrounding equipment, and presented a challenge to firefighters who battled the blaze in wind chills as low as -40°.

Typically it takes a manufacturer about a year to build a transformer of this size. However, under its Asset Management program, National Grid's Northeast Transmission group had determined that given the potential for system congestion and other issues in the event of a failure, it was in the best interest of customers to invest in spare transformers for selected substations throughout its service territory. Because a spare had been ordered that could be used at New Scotland, the replacement was able to be installed and energized before the arrival of summer peak demand for electricity.

Across the state at Niagara Mohawk's Dunkirk substation, located in southwest New York, another transformer replacement was completed prior to the onslaught of summer. And as was the case at New Scotland, a spare transformer that was on order as part of the Asset Management program, this one a 230 kV model, was pressed into service sooner than anticipated.

"One of the benefits of being a large company is that we have the resources to order spare pieces of very expensive equipment such as these two transformers," said Marc Mahoney, vice president of Transmission Network Asset Management. "That enabled us to significantly expedite both of these asset replacement projects." According to Mahoney, additional spares have been ordered to replace those used for these projects.