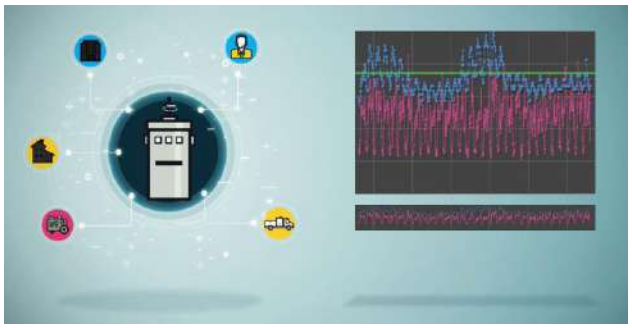
SmartWorks Compass
Transformer Loading Analysis

Value of Visibility

The SmartWorks Transformer Loading Analysis module continually analyses loads on distribution transformers and identifies those at risk of failure, resulting in improved system reliability and better asset utilization. “What-if” scenario planning determines the optimum replacement size for overloaded transformers, and helps determine if existing transformers have sufficient capacity for newly constructed locations.



Summary of Benefits

- Improved System reliability with reduced downtime & reduced restoration costs
- Increased customer satisfaction
- Reduce physical losses by operating transformers within their optimal loads
- Reduce asset costs by right-sizing underutilized transformers.

The Business Problem

Distribution transformers are one of the most valuable assets in an electric distribution system. When the proper sizing of transformers is continually monitored, utilities will get the greatest benefit from the significant investment made in these assets. Costly outages from overloaded transformers can be avoided, wasted capital expenditures from underutilized assets can be reduced, and physical losses can be lowered by optimizing transformers for their load.

The Solution

SmartWorks Compass calculates the hourly load on each distribution transformer using AMI meter data at delivery end-points. Advanced analytics compare the calculated load to the kVA rating and optimal operating band, identifying transformers operating outside of their design parameters, prioritizing replacements and identifying optimal replacement sizing. You can interrogate the system to identify reliability risks and plan their mitigation strategy.

Sophisticated Algorithms

The system performs a complex set of calculations and analysis, yet presents the results in a simple, intuitive fashion. The algorithms have a thoroughly researched and generally useful set of default parameters, but also permit a high degree of flexibility for advanced users. Power factor corrections, load growth adjustments, optimal operating band definitions and even notification settings are all easily configured to produce results that are the most meaningful to your utility.

Visualizations

Map views display transformers color-coded by load across the entire territory and allow you to zoom in to show metered connections. This enables you to assess a large scale and complex environment with an intuitive visualization. A range of graphical views empower you to understand the characteristics of transformer load, see the impact of temperature changes, and drill in to individual load contributors.

Understanding transformer loading throughout your network empowers you to improve system reliability and reduce asset costs. Contact SmartWorks today to reap the benefit of this visibility.

Ready to learn more? Visit: www.harrisutilities.com/smartworks/ or email: smartworks_sales@harriscomputer.com