

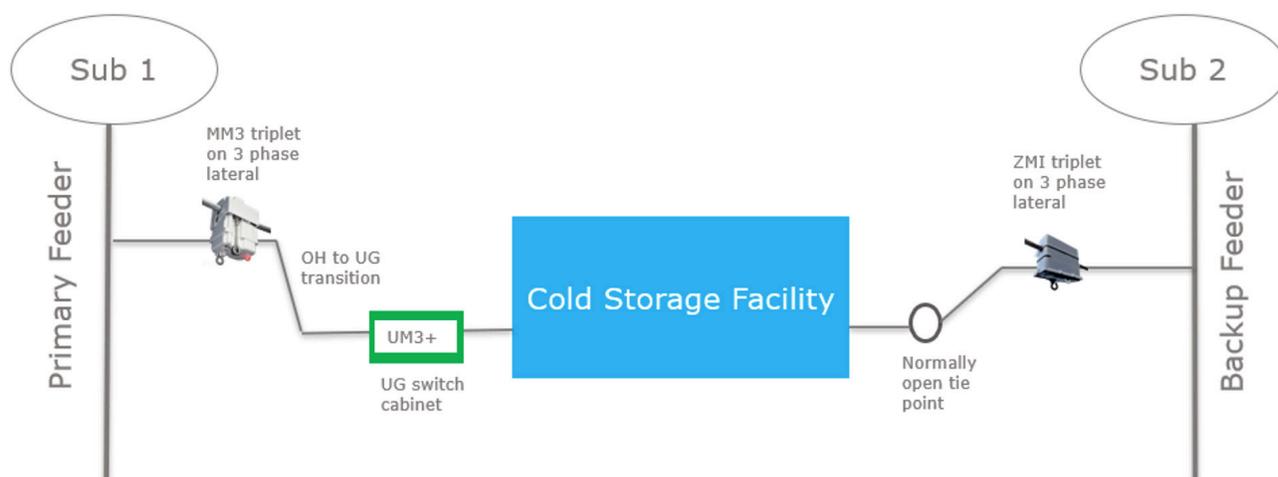


Monitoring Critical Customers

Critical customers may have unique power needs, but all require uncompromising reliability. Distribution utilities can maintain optimal reliability of these locations and improve customer satisfaction through circuit monitoring and reporting from line sensing solutions. Line sensors are a cost-effective and quick-to-deploy solution for creating the necessary additional system visibility.

The Sentient Energy Grid Analytics System™

Sentient Energy's MM3™ and UM3+™ line-powered line sensors are installed on laterals powering critical customers such as the cold storage facility shown below. Battery-powered ZM1™ sensors are used on laterals from backup feeders with lower currents. Fault notifications and load data are sent from sensors to the Ample® Analytics Platform for visualization and analysis.



How It Works

With Sentient Energy line sensors deployed on laterals from both the primary and backup feeders, utilities have greater visibility of their critical customers' power feeds. With the sensor data and analytics from Ample software utilities can begin more proactive management of critical customers, including:

- 1. Instant notifications of faults** – Utilities receive real-time alerts for faults and can communicate status quickly to critical customers. Sensors report fault magnitudes, durations, and waveforms to the Ample software platform and also to SCADA, OMS or DMS systems.
- 2. Reports with load levels and phase balance** – Utilities can create detailed analyses of load data and phase balancing for periodic review with critical customers. Ample software simplifies the identification of system locations with phase unbalance.
- 3. Early identification of problems** – Sensors can monitor disturbance levels on each lateral feeding the customer. High disturbance levels can be a sign of impending faults and utilities can use this data to work with customers to proactively address potential problem areas.

Results

For utilities aiming to improve reliability and customer satisfaction, Sentient Energy's Grid Analytics System offers a cost-effective way to increase collection of system data related to critical customer feeds. With high resolution sensor data and analytics utilities have the information and insights to have more effective engagement with their critical customers.

Sentient Energy®, a Koch Engineered Solutions company, is the premier provider of intelligent sensing, data analytics, optimization, and control technologies for the distribution grid. For more information visit www.sentientenergy.com.

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