

Smart technology boosts energy efficiency and food quality at Usave

In response to rising energy prices, Usave, the Shoprite Group's no frills discount stores, recently introduced an advanced loss prevention system designed to reduce costs and boost operational efficiency in its supermarkets - helping the retailer to continue delivering the lowest prices to customers.

Implemented in partnership with 100% South African tech company, Azoteq, the customised system employs SmartSense™ technology to track power consumption and facilitate rotational switching of store equipment during power outages, utilising inverters and battery banks.

It is especially critical for Usave's rural and peri-urban stores, where electricity supply is often erratic and extended outages are a regular challenge.

"This pioneering work showcases how our real-time, proactive use of innovative, locally developed technology, combined with a strong focus on operational excellence and cost savings, helps us prevent unnecessary waste and reduce shrinkage-related costs - efficiencies that allow us to pass even more value and savings directly to our customers," explains Dewaldo Diedericks, General Manager of Usave.

The system monitors temperatures in critical areas, like cold storage, freezer rooms and the salesfloor, and issues alerts when predetermined thresholds are surpassed, thereby preventing spoilage and optimising energy consumption of equipment in these areas.

Data is delivered through a user-friendly dashboard that equips management with real-time insights to enhance decision-making, ensure improved food quality and prevent costly equipment failures.

Generator runtime and fuel levels are also tracked, enabling the business to follow more efficient servicing and refueling schedules. In this way Usave avoids unnecessary maintenance, further reduces costs and minimises the likelihood of unexpected outages in instances where a switchover to generator is necessitated.

To generate additional savings, Usave supermarkets also regularly simulate power outages at supermarkets on time-of-use (ToU) tariff structures, switching over to battery during peak times when electricity is more costly, and charging the batteries during off-peak times.

"We have been able to respond and prevent freezer failures as they occur, achieving a 0% rate of stock loss across all stores where this system has been implemented to date. In addition, the seamless, automated transition from generator power to hybrid inverter and battery power during outages, has saved the business more than 80 000 hours' worth of costly services and fossil fuel consumption," says Diedericks.

Already running at 202 locations, Usave plans to equip all its stores with SmartSense technology, gradually replacing older uninterruptible power supply (UPS) systems. As part of its sustainability efforts, the discount retailer is also gradually incorporating solar energy into its operational strategy at its already compatible hybrid system stores

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