CASE STUDY: Wegmans

Wegmans Food Markets, Inc. is a 77-store supermarket chain with businesses in New York, Pennsylvania, New Jersey, Virginia, and Maryland. At its 420,000 square foot retail service center (RSC) in Pottsville, Pennsylvania, it services all stores in the Wegmans network and operates three shifts per day, 6.5 days per week, 360-plus days a year.



With GenDrive, lift truck operators at Wegmans are in control of their shift and productivity improvements.

THE POWER PLAYERS

David DeMascole

General Manager, Wegmans RSC Pottsville Oversees the day-to-day operations at the Pottsville RSC produce and grocery facility.

Dave Allar

Maintenance Manager, Wegmans RSC Pottsville Coordinates all maintenance and construction projects and monitors utilities.

THE VITAL STATISTICS

Wegmans' Pottsville RSC employs approximately 360 associates and services 31 stores.

83 Plug Power GenDrive fuel cells deployed in 2010; 53 added in 2012. By 2019, Wegmans was operating a fleet of 325 pieces of fuel cell-powered material handling equipment.

Operating cost savings of 42 to 48 percent, due to reductions in maintenance, repairs, and electricity usage.

More than 4 million kilowatt hours of energy are projected to be saved.

Projected carbon emissions reduction at this facility equivalent to removing 134 cars from the road each year.

THE SITUATION

Wegmans had plans to develop a new 420,000 square foot refrigerated and frozen distribution center. Pottsville was tasked with developing a new business model for the distribution center. While the new center was under construction, service and distribution were being done through the existing produce and dry grocery centers. They determined that testing the new business model to ensure its viability should be done in their existing facilities, but there was no capacity for adding the new services. To accomodate the increase in products, more equipment and maintenance capabilities were needed. There was no room for additional equipment storage, and the extra maintenance expense was not something Wegmans wanted to incur. It was time for a more efficient plan.

The idea of using hydrogen fuel cells instead of lead-acid batteries in the material handling equipment was introduced because of significant benefits offered by the alternative energy power source - increased sustainability, fewer maintenance requirements, and operator self-sufficiency. A six-week trial, running four GenDrive fuel cell-powered trucks against four powered by lead-acid batteries, served as the tipping point for switching to hydrogen fuel cells.

> "Our operators tested the equipment and could immediately see what it would mean to equipment performance and productivity," noted Dave Allar, Maintenance Manager for Wegmans' Pottsville facility.



POWERING POSSIBILITIES

Wegmans Pottsville has been using GenDrive fuel cell-powered pallet trucks and forklifts since early 2010. "In the beginning, we needed to have a lot of education to convince people internally that this was a reliable, safe, and cost-effective solution," said Dave DeMascole. "Plug Power's education process was very good. They knew our business model and understood our business needs and challenges. They helped ensure a successful transition."

DeMascole continued, "We knew that lead-acid batteries worked and were most concerned about the leap because the hydrogen fuel cells were an unknown entity. However, Plug Power worked to provide contingency plans and fail safes in case something went wrong. For the first month, we had engineers from Plug Power on-site weekly, checking equipment and ensuring that it was operating properly. Looking back, the hydrogen fuel cells have proven to be realiable and highly effective."

> "In the end, you want the equipment to perform and work a certain way," said David DeMascole. "The GenDrive fuel cell units perform the way we want them to and our equipment operates far better than it has in the past."



WHY PLUG POWER & HYDROGEN FUEL CELLS

Productivity Gains Save Money.

"We can get two full shifts on one refuel of a fuel cell-powered pallet jack," said Allar. "Also, because employees have been taking better care of the equipment, it has reduced the need for extensive maintenance. In fact, one year later, the equipment still looks brand new." Additionally, eliminating the need for extra storage space to house the lead-acid battery equipment has been a substantial advantage. It's now possible to use that space for other initiatives, making for more efficient day-to-day operations and a better overall maintenance strategy.

Consistent Power. Lower Maintenance.

"With the GenDrive fuel cells, the equipment has consistent power. Hydrogen fuel cells do not have the heating cycle like there is with lead-acid batteries, which often caused the machines to break down over time," said Allar. "Due to this, we were able to negotiate much better equipment and maintenance contracts. We have saved over \$250,000 on equipment and expect to save another \$250,000 through the overal term of the service and maintenance contract."

Employee Satisfaction.

The improvement in employee relations was great. "There has been an overall increase in employee job satisfaction," said DeMascole. "The pallet jacks operate at the same power over the entire shift. With lead-acid batteries, that does not happen and if you have to move extremely heavy product, the equipment moves even slower. Anything we can do to make their jobs better and more productive is a major benefit. Right now, we have a mixed fleet of hydrogen fuel cells and lead-acid batteries and employees literally rush to get to the GenDrive units before they are claimed by others."

"It works perfect for us and our pallet jacks," said DeMascole. "I would not have introduced our employees to anything unsafe. It is far safer than gas and the only by-products are heat and water."

Corporate Headquarters 968 Albany Shaker Road Latham, NY 12110 518.738.0320 West Coast 15913 E. Euclid Ave. Spokane, WA 99216 509.228.6500



PLUGPOWER.COM gendrive@plugpower.com