
FITESA slashes energy requirements by 3 million kilowatt-hours through energy management and equipment upgrades.

Transforming two polymers into high-performance filaments one-hundredth the size of a human hair takes a lot of expertise. And energy.

Fitesa's 30-year-old facility in Washougal, Washington, which transforms polymer pellets into sheets of non-woven fiber for diapers, wipes and filters, had been consuming about 19 million kWh of energy annually. Plant manager Dave Rohrbach said finding ways to be cost competitive is a constant battle essential to remaining a viable player in the industry.

"We are the only non-woven plant on the West Coast, and a large percentage of our customer base is on the East Coast, so we pay a lot of money in freight – since it's so heavy – to [transport] our product," says Rohrbach. "A lot of our competition resides on the East Coast, so we have to do a lot of other things to remain cost competitive [for] our customers."

With an energy-intensive production process, Rohrbach knew improving efficiency was a good approach. "It's obvious that saving a kilowatt of power is going to save money on the bottom line. The problem is organizing your efforts in such a way that you get the biggest bang for the buck."

Enter Clark Public Utilities, which introduced the company to Bonneville Power Administration's (BPA) EnergySmart Industrial (ESI) program. BPA's ESI program works with Northwest public utilities and their industrial customers, offering program management, technical recommendations and financial incentives to advance energy efficiency throughout the region.

A five-person High Performance Energy Management team supported by Clark Public Utilities and technical consultants provided by BPA's ESI program identified a number of conservation initiatives and the introduction of new systems. In addition, Fitesa met collaboratively with 13 Portland-Vancouver area industrial companies to explore possibilities for energy savings in a High Performance Energy Management group.

The result: In one year, Fitesa is on track to trim energy usage by 3.5 million kWh annually, or about 19 percent.



COMPANY

Fitesa

UTILITY

Clark Public Utilities

PROJECT

Chiller Upgrade

ENERGY SAVINGS

2,524,032 kWh/yr

PROJECT COST

\$929,308

INCENTIVE

\$650,516

PAYBACK

2.4 years

ENERGY MANAGEMENT IS KEY

“We found significant opportunities to reduce energy usage once we found a way to correlate energy consumption with plant output,” said JD Hisey, the plant’s continuous improvement team manager. “Once it’s set up, it only takes a few minutes a week to monitor and helps us keep our savings plan on track.”

About 30 percent of the company’s energy savings are achieved through continuous improvement initiatives learned during the High Performance Energy Management cohort, initiatives like eliminating leaks in compressed air lines and managing equipment temperatures.

In addition, the ESI program helped Fitesa pursue a capital project replacing aging cooling towers with three efficient chillers and control systems. The company received a \$650,516 incentive from Clark Public Utilities through the ESI program, which covered about 70 percent of the chiller system upgrade. The upgrade will save about 2.5 million kilowatt hours of energy annually.

“Energy efficiency is one of the main things we do to reduce our overhead, so we can offer the same materials to the same customers without a disadvantage” Rohrbach said. “It’s really a huge deal to this plant, not only from a competitive standpoint but a longevity standpoint.”

Annual electrical energy savings will equate to more than \$135,000 annually. The company also receives incentives from documented savings through the ESI program. These incentives along with substantial savings on Fitesa’s electric bill made these efficiency upgrades an attractive investment.

“Clark Public Utilities views energy efficiency as a strategic approach to meeting long-term demand growth while helping its customers achieve new levels of economic competitiveness. It’s a lot less expensive to use energy more efficiently than it is to build more capacity,” said Sam Walker, Energy Engineer for Clark Public Utilities. “With BPA providing energy incentives and technical expertise, we are helping companies achieve significant energy savings through the Energy Smart Industrial program.”

ENERGY SAVINGS GOES GLOBAL

The work Fitesa has done with the ESI Program is now serving as a global model of the value of energy efficiency.

“Everything we do here is following the plan-do-check-act cycle, which is the continuous improvement cycle” Hisey said. “In the last two years, we’ve saved around a million kilowatt-hours a year – just from doing High Performance Energy Management projects.”

Building upon their success in Washougal, Fitesa has expanded its strategic energy management approach to its facilities across the globe. This work is being led from Washougal by Rohrbach, who is coordinating the company’s global energy and utility management initiative.

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JD Hisey, Fitesa

Continuous Improvement Manager

For more information about BPA ESI:

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or contact your local utility provider.