Global Performance

Electricity Consumption

Pounds per 100 lbs of Production

Across all global locations in 2018, we consumed 8.3 kilowatt hours per 100 pounds of total production.

* The 2020 goal is based on a 2.5% annual reduction from the 2017 baseline value.
Bright Idea Leads to Energy Savings

What can we do with that extra heat? How can we use it? How can we innovate? According to Victor Medina, Plant Engineer, those questions led the maintenance and engineering team to an innovation at Global Supply Chain’s Engineered Polymer Solutions plant in Hendrik-Ido-Ambacht, Netherlands. A routine equipment upgrade became an opportunity to realize huge savings on gas and electricity.

The team planned to replace an old air compressor system with new machines, but they had to fit in a very small room, which created challenges. “We figured out a way to install them,” says Hans Mulder, Maintenance and Engineering Manager, “but we were concerned that they might overheat in the tight space. The easiest solution was to put in a fan to blow the heat out, but that wasn’t really sustainable.”

They didn’t want to waste the heat because the plant requires a lot of it in the production process, where chemical reactions occur at very high temperatures.

The solution began to unfold once they realized there was a steam-heated water tank in the room next door. “There’s a lot of energy going into that tank,” explains Mulder. “What if we feed the excess heat from the air compressors into the tank, so that we don’t have to have the boiler heating it?”

Over the course of a year, the team engineered, tested, and refined a solution to do just that. They significantly reduced the steam needed to heat the water as well as the gas that generates the steam. Their efforts saved the plant more than 36,000 cubic meters of gas — enough to heat 21 Netherlands households.*

They are conserving electricity as well, thanks to a smart control system that regulates the new air compressors to maximize efficiency and use less power, which makes a big difference in the plant’s electric bill. “Generating air is one of your most expensive utility costs,” according to Mulder.

“We really had a choice to do it our way — and our way is the sustainable way,” says Mulder.

This success has sparked a new sustainability project for the team, adds Mulder. “We’re looking at other areas in the production process where excess heat could be recovered and recycled, leading to more savings.”

For Mulder, the commitment to sustainability goes beyond work. “I have two beautiful daughters and I want them to have a good place to live. We have to pass it on.” He concludes, “where you can, it’s good to consider the environment. And if the company gets a benefit from it, that’s a win-win situation.”

* Data per Energiesite.nl