



How United States Cold Storage supports sustainability through demand response

United States Cold Storage is a leading cold storage logistics company that aims to advance, innovate, and serve companies seeking the best service, facilities, and logistics in the cold chain industry. Originally founded in 1899, the company is headquartered in Camden, New Jersey, with 43 cold storage facilities located throughout the continental United States.

As a large energy user, US Cold Storage is a great candidate for demand response (DR). Mike Lynch, Vice President of Engineering at United States Cold Storage, first started working with Enel to enroll in demand response programs 15 years ago, and the relationship has expanded to include more than 20 sites enrolled in 7 demand response programs nationwide.

“I’d definitely recommend Enel,” Lynch said. “I have a good relationship with my Enel team. We’ve set a goal of generating \$1 million dollars in demand response revenue and we’re knocking on the door—I’m hoping we’ll hit it in the next year or two.”



CASE STUDY



Industry

Cold storage



Location

Headquartered in NJ;
20+ participating sites



Program

7 DR programs nationwide



DR earnings

Almost \$1 million total



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—Mike Lynch,
VP of Engineering
at United States
Cold Storage

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How DR works

Demand response programs provide payments to energy users that agree to reduce their energy demand during times of grid stress. There are a wide variety of programs available across America with different requirements—some, for instance, require faster response times when energy users are asked to curtail energy use. US Cold Storage participates in a number of different programs in regions across America.

Why US Cold Storage quickly bought into DR

When Lynch first started enrolling US Cold Storage facilities in demand response 15 years ago, he had a specific goal in mind.

“Our big motivator was the opportunity to turn engineering—which has always been a cost center—into a profit center. There were clear opportunities to earn revenue through participating in DR programs.”

Lynch remembers when he first discussed with facility managers that they’d be participating in demand response. There was some hesitation at first, but the managers were quickly won over.

“Selling demand response is easy because it helps a warehouse’s bottom line,” Lynch said. “In the beginning it might have been a challenge because they didn’t quite understand it and the benefits—but when they saw the checks roll in they said, ‘How can I do more?’ They wanted to find out how they could maximize those benefits.”

How DR supports sustainability

US Cold Storage is a sustainability-focused company, with a current goal of reaching zero-carbon by 2050. Their sustainability efforts inform every aspect of their business, and Lynch said that they consider demand response within their sustainability program.

“We tie demand response into our sustainability strategy,” Lynch said. “Anything we can do to reduce on peak demand use has multiple benefits—there’s a financial benefit, but there’s also an environmental benefit by reducing our load during high peak times. Our interest in DR is multi-faceted—it encompasses both our sustainability efforts and our energy efforts.”

Why it’s easy to respond to a DR event

When an event occurs and US Cold Storage is asked to turn down their usage, they focus primarily on reducing the connected load of refrigeration equipment, which Lynch notes is about 70% of their energy usage, while continuously monitoring room temperatures. Because there are so many frozen products in the freezers, there is large thermal inertia—a decrease in refrigeration for the length of an event has no significant effect on the temperature in the freezers.

For many of the US Cold Storage facilities that participate in demand response, the process is as easy as clicking a button. “Our control system during demand response scenarios is to just click a button, and the system is programmed to respond a certain way. Warehouses can do things like defer defrosting or starting a compressor, or can raise room temperature slightly. The button has everything pre-programmed, so it’s pretty easy for folks to respond quickly to a demand response signal that we get.”

Moving forward with DR

After such a long relationship, Lynch noted that US Cold Storage is approaching its impressive \$1 million earnings milestone, and that he’s appreciated the role Enel has played in getting there.

“Our relationship with Enel has been great,” Lynch said. “Enel has always been very responsive to our questions. They’ve served the account well over the years.”