



Frozen on a Stick

We Love Warm Temperatures – Even in the Cold Chain Industry!

Bar-b-ques, burgers, hotdogs and ice cream – it's what we all live for, and it's what our food production and commercial kitchen customers build up for almost since the last summer heatwave ended! Demand would quickly outpace production of our backyard favorites under normal circumstances so it's fortunately that America's temperature-controlled storage and distribution supply chain is as robust as it's ever been.

There are more than 1000 commercial temperature-controlled warehouses across the US. Most are strategically placed close to production and consumption centers and some are customer-dedicated and even attached to production facilities. Americold has a number of customer-attached facilities including some for ice cream. Yum.

Ice cream is a unique product, available in any number of flavors, consistencies, and colors. Ice cream curators perfect recipes in the kitchens so that we can have the perfect end to a meal, a tasty treat for a job well done, or a bribe for a child to just try the carrot please!

You want that treat to be in perfect condition, as if you'd been handed it directly from the chef who'd just finished the latest batch. Temperature-controlled supply chain partners have a role in that by maintaining extremely low temperatures, minus 15-20 degrees Fahrenheit and lower, from the moment the ice cream departs from the production facility along the conveyor and into our attached facility, up until it's delivered to your local retail store.

Maintaining cold, cold warehouses in the hot, hot summer takes a lot of energy. So what are refrigerated warehouse operators doing to use that energy responsibly?

Energy Efficient Operations

Up to 15% of a refrigerated facility's power consumption can be attributed to lighting these vast cold rooms. Replacing typical metal halide bulbs with LED equivalents can result in up to 80% in efficiency gains. Add motion-sensing technology, to activate the lighting only when associates are operating in that part of the facility, further adds to the level of efficiency.

Dozens of Americold's facilities have already retrofitted motion-sensing LED lighting systems and the technology is incorporated into all new expansion, modernization and new build plans.

Natural Gas Fuel Cell and Solar Solutions

Americold's Salinas, CA facility generates more than 600,000kWh per year from a natural gas fuel cell that converts natural gas to clean energy. This alone reduces our CO₂e footprint by over 1m lbs. per year.

One of our Gloucester, MA sites has been retrofitted with roof-mounted solar units that generate up to 500,000kWh of clean energy per year.

These pilot programs are helping us evaluate the cost effectiveness of alternative energy options for other facilities.

Real Time Metering

The ability to monitor facility-level energy consumption from a desktop application is huge advantage. After implementing energy utilization standards at each of each our sites, indicating exactly how much energy a facility should be using based on a given occupancy level and season, rare out-of-tolerance readings now trigger alerts to local Americold management and our corporate energy management team so that issues can be resolved quickly and we can maintain efficient operations.



SmartWay Partnerships

We partner with transportation service providers who are SmartWay participants and use SmartWay guidelines on our own truck fleet too. SmartWay is a US Environmental Protection Agency program that aims to accelerate the availability, adoption and market penetration of advanced fuel efficient technologies and operational practices in the freight supply chain, while helping companies save fuel, lower costs and reduce adverse environmental impacts.

Demand Response Programs

Some utility companies operate Demand Response programs in partnership with their commercial customers. During periods of anticipated high demand, a hot summer's day for example, the utility company predicts increased demand from schools, hospitals, some businesses and residential customers, so looks to some of its commercial customers to reduce power draw. Americold participates in every available Demand Response program offered by utility companies in the USA, with no adverse effects on facility temperature stability for the short periods of time the load shedding request is in play. This commitment to supporting local utility companies avoids power blackouts during demand spikes and the overall need to generate power.

Did you know? *The ground underneath our cold storage rooms must be kept from freezing to avoid frost heave that can buckle building supports and affect the integrity of facilities.*

Americold uses heat rejection systems to exploit the hot air generated by our condensers to warm glycol that runs in pipes under the floors of our facilities, maintaining an above-freezing environment for the foundations without affecting temperatures in our rooms.

Recycling

There are, quite literally, tons of opportunities for recycling packaging, pallets and all sorts of materials in the supply chain industry. Material handling equipment batteries, those used in the vehicles that shuttle product and equipment throughout the warehouse that are the size of a very large suitcase, are upwards of 98% recyclable. In 2015, Americold worked with its national partner to recover 1.2millions pounds of material for reuse from those batteries.

Industry Awards

Sustainability program details are featured on the business proposals we craft for our customers. Our programs are backed by industry awards that we're proud of: Food Logistics Magazine has awarded us the Top Green Service Provider title in recent years, and our Salem, OR facility has received Portland General Electric's Environmental Leadership and Stewardship award in 2015 for its sustainable activities too.

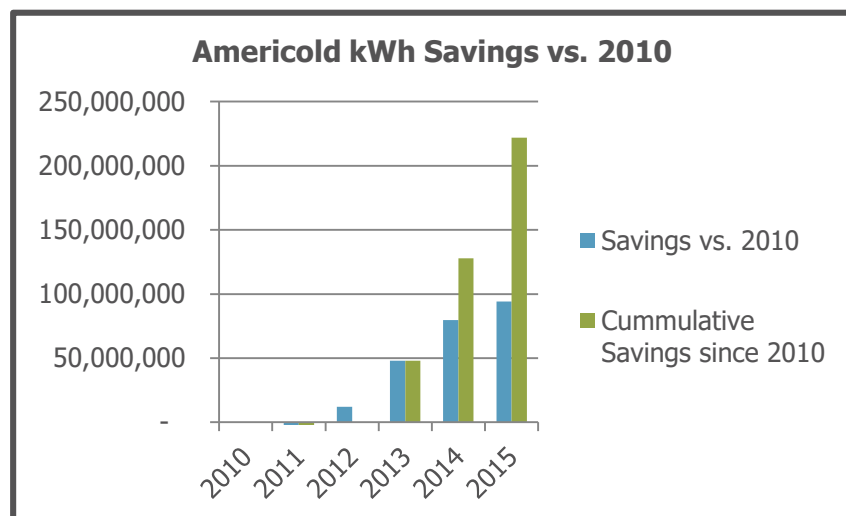
What's the Result?

We're proud of our achievements so far. Since 2010 we've cumulatively saved more than 220,000,000 kWh of electricity – that's enough to power more than 22,000 homes for a year! Convert that to CO₂ equivalents and that equates to over 180,000,000 lbs. that's avoided being released into the atmosphere. But this is only the beginning.

Key Sustainability Performance Indicators

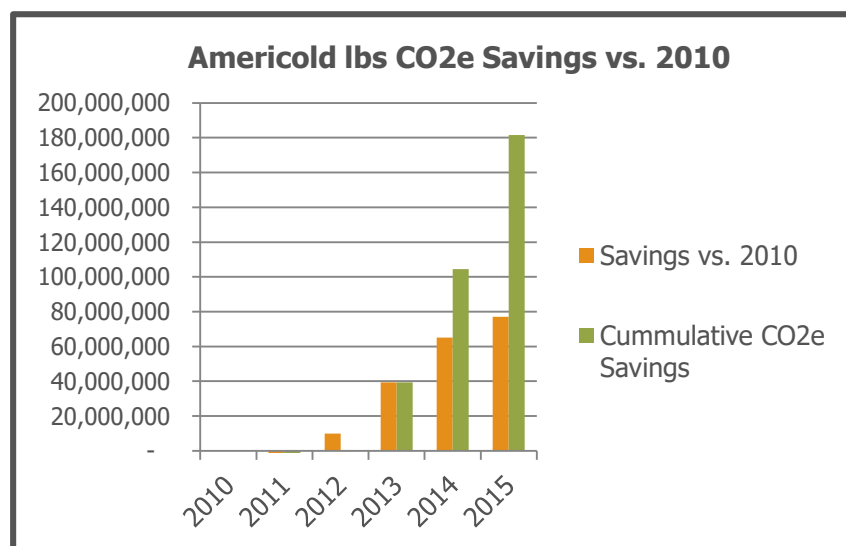


Energy savings vs. 2010 levels



Over 220m kWh of electricity saved since 2010 – enough to power more than 20,000 homes for a year!

CO₂ Equivalents vs. 2010 levels



More than 180m lbs. of CO₂e has avoided being released into our atmosphere!

Advancements in technology will continually lead to more efficient and effective operations, and Americold is dedicated to appraising and implementing system and process evolutions as often as part of our ongoing Corporate Social Responsibility program.

So, go ahead, give your child that ice cream for eating the carrots, and know that Americold's temperature-controlled supply chain is doing its part to achieve sustainable refrigerated operations.

For more information on Americold's environmental processes, please [contact us](#).