

Going Green In Manufacturing

Richard Travers, President, Freeaire Corporation



As energy costs continue to climb, manufacturers are searching for ways to reduce their energy usage to both save money and reduce their environmental impact. *Food Manufacturing* spoke with Richard Travers of Freeaire Corporation about how manufacturers can utilize “greener” processes and renewable resources.

Q: What can food manufacturers do to reduce their environmental impact?

A: Using locally grown food that doesn’t need to be transported far is a good way to reduce a manufacturer’s carbon footprint. Reducing waste in packaging and waste of ingredients are other ways. Energy efficiency in all its forms—transportation, heating, cooling, refrigeration, motors, etc.—are all important.

The cost of refrigeration in the food business is significant. Depending on the type of food, it’s a cost that carries all the way through the supply chain – there’s no point at which the refrigeration is turned off, from trucking to warehousing to retail display. A Freeaire refrigeration system is able to reduce energy consumption in multiple parts of this process. Thirty to forty percent of a food warehouse or distribution center’s electric bill is from refrigeration. This technology can save 20 to 50 percent of the energy needed to cool a cold storage warehouse. Using less electricity, especially from a dirty source like coal, can cut down on air pollution and reduce how much carbon is released into the atmosphere, thus slowing global warming.

Q: How does efficiency impact the environmental impact as well as the profitability of a food facility?

A: The cheapest energy is the energy not used, and using less electricity helps the environment. In energy conservation circles, this is often expressed as “a ‘negawatt’ always trumps a megawatt.” Food retail and distribution businesses often operate on extremely tight margins, and like any business, they also need to be able to accurately forecast costs. Growing and volatile energy prices, however, negatively impact both profitability and the ability to plan. By looking at specific energy use in all realms of the manufacturing process— heating, cooling, lighting, etc.— a company can improve efficiency and begin to see savings. Outside firms do energy audits and plant operations managers often know vulnerabilities at specific facilities. Think of it as you would when building or improving your home: the higher-grade insulation you use means lower heating costs year after year. The payback period versus how much you spend to get the efficiency is important.

Q: What about solar and wind energies? Can these help food facilities decrease their environmental impact as well?

A: Renewable energy sources can absolutely decrease a business’s environmental impact, but buying and installing solar panels or wind turbines is an expensive and complicated process that sometimes includes long permitting periods. Other complicated details and a long payback period can make these choices a bit daunting. When researching new technologies, always factor in the payback period and any utility, state or federal energy rebates available. That will make your choice clear. We’ve found, for example, that in most installation environments, a Freeaire refrigeration system has a one to five-year payback and typically qualifies for utility energy rebate programs.

Q: What technology has been developed to help food manufacturers increase sustainability?

A: Freeaire refrigeration systems harness what we call ‘polar power’ using an engineered solution that has been around for 20 years. Polar power (the cold air produced naturally by mother nature) is a clean, widely available, free source of renewable energy that is in many ways similar to solar power. Think about polar power as the opposite of solar power. It is sustainable—nothing has to be done to have cold air arrive in cold climates each winter. It only needs to be harnessed. Anywhere in the world, at anytime of the year, the Freeaire All Climate™ System can ensure that you are not wasting energy or money.

But in colder climates, when the weather turns cool, manufacturers may be able to save even more energy. Winter represents a virtually untapped natural resource. It is a season with the power to refrigerate coolers and even freezers, all without consuming huge amounts of electricity to run costly conventional equipment. Freeaire’s Polar Package™ doesn’t have to rely on a compressor system to produce cold air. It simply moves super-filtered cold air from outside to inside, using just a fraction of the energy.

Q: How do you see the food industry utilizing technology to reduce environmental impact in the future?

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Published on Industrial Maintenance & Plant Operation (<http://www.impomag.com>)

A: By doing simple things like having an energy audit on buildings (and implementing those suggestions), using compact fluorescent light bulbs, recycling, sourcing food and materials closer to your plant and looking at every purchase in the supply chain for green alternatives, the food industry can reduce its environmental impact moving forward.

If there is a choice to use clean, renewable energy sources like wind and solar (and the payback makes sense) they can play a role in reducing the environmental impact of what a company does. Keeping up with new technology is important since things are changing fast. The food industry as a whole is poised to reduce its environmental impact through small and large changes that will actually help keep costs down and make companies more profitable over the long haul, especially as energy prices continue to climb.

For more information, visit www.freeaire.com [1].

Interview By Lindsey Coblentz, Associate Editor

Source URL (retrieved on 01/27/2015 - 7:25pm):

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[1] <http://www.freeaire.com/>