

Customer

Whole Foods Belmar
Lakewood, Colorado

IcePoint™ Demo Unit

Cooling load: 340 BTU/hr
Energy storage: 4 hr

Full Store Impact*

Annual savings:
\$66,000/yr
Payback period:
less than 3 yr

Whole Foods Market is a sector leader in the deployment of energy efficiency technologies. Unfortunately, they have been constrained by the same compression-based, energy intensive refrigeration technology used for the last century. In fact, there have been so few cooling innovations that they simply accept this conventional technology as the cost of doing business.

So when Marc Saba, Whole Foods' Sustainability Facilities Coordinator, heard about IcePoint™, he wanted to see it in action. "Whole Foods is always interested in exploring new technology and IcePoint™ performance figures are attractive," says Saba. IcePoint™ significantly reduces one of Whole Foods' largest costs: freezer operating expenses. IcePoint's novel thermodynamic cycle converts heat directly into cooling. Turning heat into refrigeration is an existing, commercialized process, but Rebound is the first in the world to make it technically and economically practical for freezers.

**"WHOLE FOODS IS ALWAYS INTERESTED
IN EXPLORING NEW TECHNOLOGY AND
ICEPOINT™ PERFORMANCE FIGURES
ARE ATTRACTIVE."**

Marc Saba, Whole Foods



Whole Foods' Marc Saba learns about the IcePoint™ demonstration unit from Rebound's Luke Erickson and Russell Muren.

IcePoint™ saves Whole Foods money in two ways. First, the system is powered by the store's waste heat, reducing electricity requirements by up to 40%.

Second, the cycle leverages ice, produced and stored during inexpensive, off-peak hours, to save Whole Foods up to an additional 20% on freezer operating costs.

IcePoint™ also alleviates Marc's worries regarding EPA regulations by replacing environmentally hazardous, synthetic refrigerants with water-based alternatives.

*Full store savings calculated from extrapolating demonstration unit performance to 45,000 ft² store system size

The Whole Foods Belmar installation successfully demonstrated the key IcePoint™ components. As an initial technology trial outside the lab, the system successfully produced 46,400 BTUs of low temperature refrigeration over the testing period, thus meeting internal project milestones.

The system also highlighted the importance of energy storage in a retail store application. IcePoint™ generated, stored and utilized enough ice to operate for four hours with only negligible electricity usage.

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Marc Saba, Whole Foods

Marc Saba is excited about IcePoint™ and ready to see more. Scaled up to a 45,000 ft² store, IcePoint™ could save a supermarket \$66,000 annually. “Not only is the anticipated cycle efficiency far more efficient than our current systems, but the energy storage savings are a nice bonus. I’m looking forward to seeing how the next generation, fully integrated system performs,” says Saba.

Future systems will improve on the demonstration unit by increasing efficiency, optimizing control strategy for maximum savings and arriving validated by Southern California Edison’s Thermal Technology Test Center.

Thanks to our Supporters



The Rebound team installs the IcePoint™ demo unit in the Whole Foods Belmar mechanical room.

Rebound Technologies is rethinking refrigeration through tailored, heat pump architectures that provide efficient, practical and cost-effective global solutions. To learn more, visit rebound-tech.com.