**European cold storage facilities and supermarkets can reduce electricity peak demand up to 90 percent using Thermal Energy Storage**

*U.S. innovator launches technology to harness solar energy to cut costs and carbon emissions of European cold storage facilities and supermarkets, whilst protecting the grid***.**

**HANNOVER, GERMANY** (April 26, 2016) Viking Cold Solutions™, a leading provider of Thermal Energy Management solutions for cold storage facilities and supermarkets, has today announced the launch of Solar Energy Storage™ at Hannover Messe, the world’s leading trade fair for industrial technology.

The system combines Viking Cold’s patented Thermal Energy Storage system with rooftop solar photovoltaic (PV) to deliver green, cost-effective, around-the-clock energy management for cold storage facilities, supermarkets, and utilities. The system can reduce electricity peak demand by up to 90 percent, saving customers money and helping to balance the electricity grid.

James Bell, CEO of Viking Cold Solutions said:

“Solar has proven to be a low-cost, reliable, and green generation resource, but its intermittent nature has prevented its use for powering around the clock refrigeration.”

“Until now, the missing piece has been cost-effective and reliable thermal energy storage. Our system enhances the usability of solar energy for cold storage operators, allowing them to store latent power within storage cells, to sustainably protect their products, while lowering operating energy costs.”

The technology enables cold-storage facilities, supermarkets, and utilities to intelligently store and deploy PV generated power within refrigerators to delay their use of energy and to reduce energy costs. The patented Thermal Energy Storage Cells originate from a NASA approach to using ‘Phase Change Material’ to absorb infiltrated heat so that products remain at their target temperatures. This environmentally friendly solution solves one of the largest challenges to solar energy utilisation by reducing renewable variability.

Viking Cold’s Solar Energy Storage solution comes at an important time for Europe, which has set a binding target to generate at least 20% of its energy from renewable sources by 2020. “Viking Cold’s Solar Energy Storage stands ready to help Europe meet its renewable energy targets while helping to balance the grid by reducing peak demand.” said Bell. “As renewable penetration grows, it will ultimately overwhelm the ability of conventional resources to compensate for renewable variability.”

Utilities benefit from Viking Cold’s Solar Energy Storage solution by providing a “buffer” of on-demand, efficient, and green Thermal Energy Storage at customer sites. The solution also helps stabilize the grid, enabling more intermittent users and suppliers of electricity to safely interconnect and helps achieve mandatory local energy storage targets.

Rooftop solar combined with Viking Cold’s Solar Energy Storage™ derives multiple advantages for both businesses and grid operators across Europe:

* **Increase the value of solar PV -** Store energy during the day and use it for refrigeration at night (increasing savings)
* **Cost-effectiveness and system longevity** - Rooftop solar and Viking Cold’s Solar Energy Storage are low-cost and are designed to last for at least 20 years or the life of the facility, with minimal maintenance
* **Lower peak demand charges** - Peak load shedding or shifting at any time of day increases savings during periods of renewable variability or at peak rate times
* **Reduce operational risk -** Thermal backup allows customers to maintain safe temperatures and preserve food quality during power outages or equipment failure, eliminating perishable food loss and reducing business interruption
* **Economic development** - Rooftop solar and Viking Cold’s Solar Energy Storage use local engineering and labor, leveraging utility investments to boost the local economy

The demand for fresh and frozen products combined with an expanding population, has rapidly pushed up the demand for cooling across the world. The European Commission forecasts that the demand for cooling in Europe will rise by 73% by 2030.

**About Viking Cold Solutions™**

Viking Cold Solutions™ is a thermal energy management company focused on making the world’s cold storage systems smarter and more efficient. Their Thermal Energy Storage Systems have saved their clients over 5,587 MWh of energy and have removed over 3,853 metric tons of Carbon from the air. Their team has deep expertise in cold storage energy management, supermarket energy management, and thermal energy storage systems.Viking Cold’s environmentally friendly storage solutions reduce operational costs and lower business risk for cold storage and supermarkets with high refrigeration-based energy loads. The company is expanding rapidly throughout the U.S. and internationally. Learn more at [www.vikingcold.com](http://www.vikingcold.com).

To learn more, please watch [Viking Cold’s 90 second video](http://www.hannovermesse.de/de/news/mediathek/videos/video-detailansicht.xhtml?id=AVID445867) which explains how the technology works.