

TESS:

Thermal Energy Storage Systems



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Energy is a unique challenge for many, especially with regards to the refrigeration of food product.

It is among the top operational expenses and peak demand charges can be up to 70% of an electricity bill.

Temperature control is also required 24 hours a day to keep food safe.



TESS:

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Madison Energy's Thermal Energy Storage Systems (TESS) allow supermarkets to protect vital food product while intelligently storing and deploying refrigeration to reduce energy expenses. TESS is a passive system that works in parallel with existing refrigeration systems and requires no maintenance.

Installation is simple and requires no further upgrades to the current equipment.



TESS:

Thermal Energy Storage Systems

Tuesday June 6, 2017

V. Suarez & Co.

31.2% SAVINGS

BASE: 3,589 KWH
Consumption last 7 Tuesdays

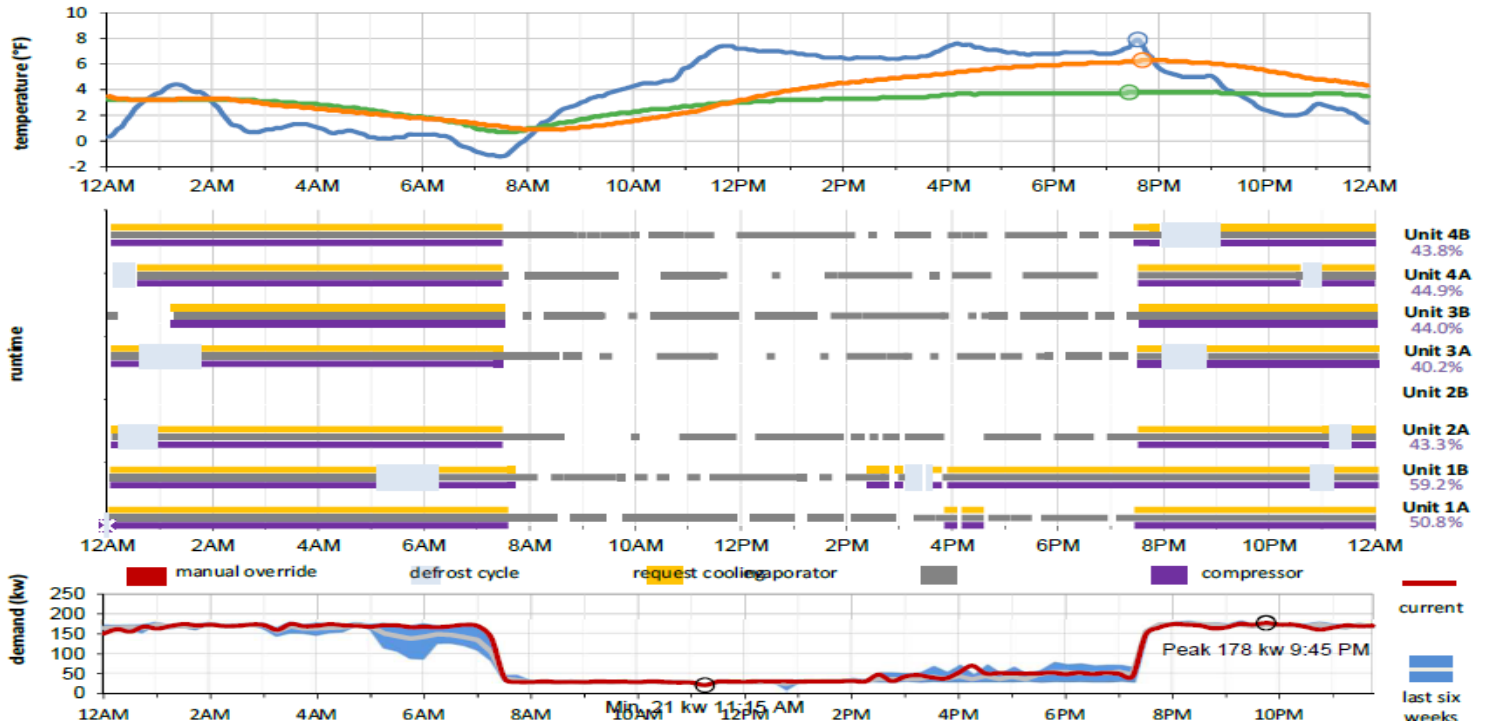
1,118 kWh Saved
 \$301.91 @ \$0.27 / kWh

2471 kWh Total
 \$667.12 @ \$0.27 / kWh

Peak Demand last 7 Tuesdays
178 kW at 9:45 PM

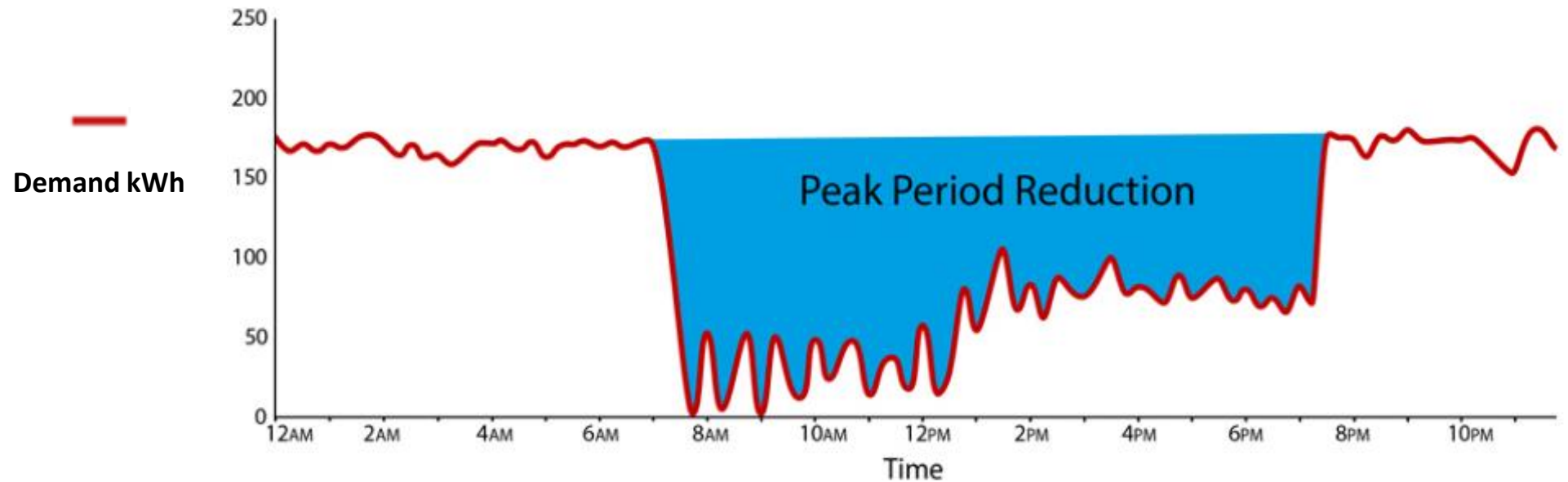
Category	Max	Avg	Min
Product	6.3 °F at 7:41 PM	3.7 °F	0.9 °F at 7:56 AM
Cell	3.8 °F at 7:26 PM	3.0 °F	0.7 °F at 7:26 AM
Space	7.9 °F at 7:36 PM	3.9 °F	-1.2 °F at 7:26 AM

Daily Profile

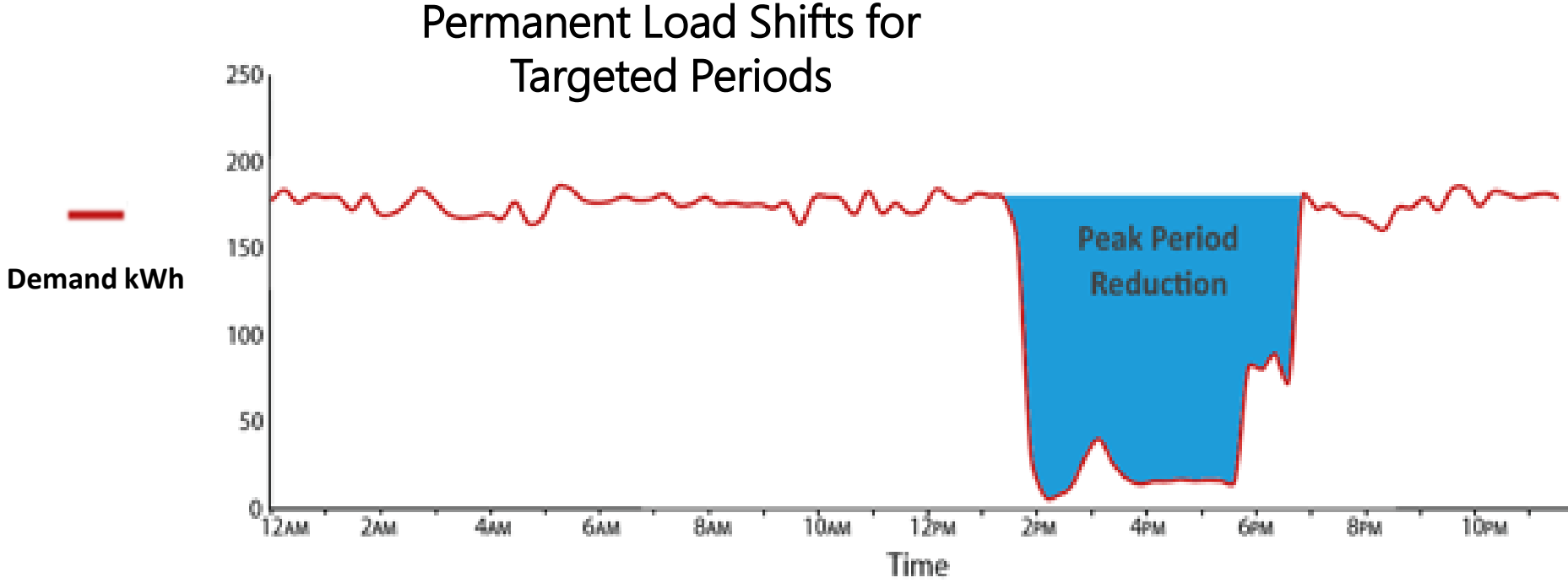


Thermal Energy Storage Systems Reduce Energy Consumption

Load Shift and Efficiency

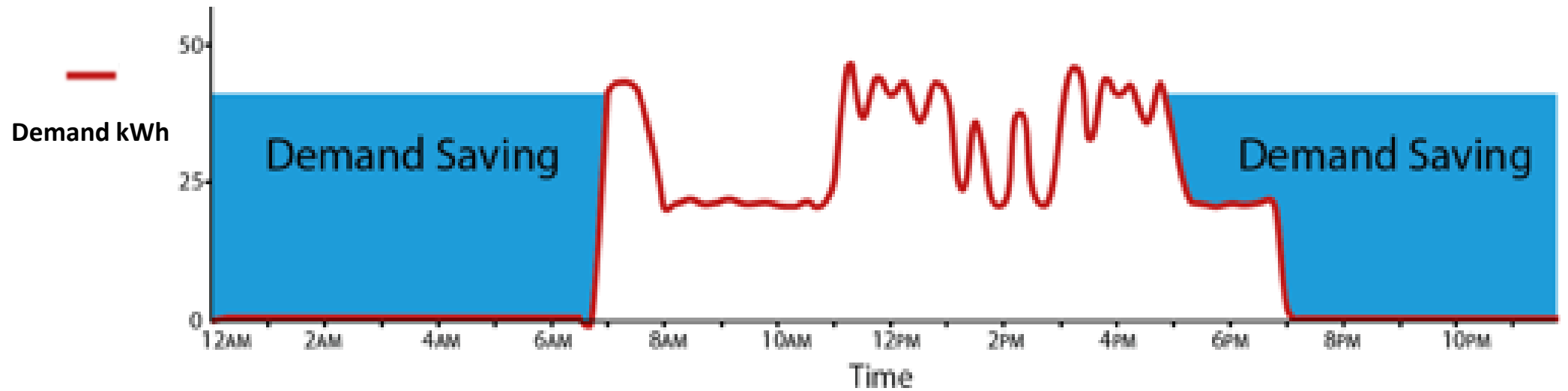


Thermal Energy Storage Systems Reduce Energy Consumption



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Demand Savings and Consumption Reduction





Layers of Protection

Protection From Rising Peak Energy Charges:

TESS stores thermal energy during low cost periods of the day and uses it during high cost periods of the day saving up to 90% of peak demand charges.

Protection That Lasts:

TESS is designed to last over 20 years, has no moving parts, and is maintenance free.

Thermal Backup Protection:

In the event of a power outage or a failure of mechanical systems, TESS maintains temperature and provides protection from product loss.



Layers of Protection

Protection in Real Time:

A real time monitoring and reporting system provides predictive tools to protect your product. TESS provides early warning notifications of potential mechanical issues before those issues turn into costly failures

Protection For Your Bottom Line:

Madison will work with your to design and install a custom tailored solution for your company, with flexible purchase options to protect your balance sheet.



Benefit Summary

Up to 90% Peak Demand Reduction
Up to 35% Consumption Savings
40% Increase in Temperature Stability
Protection During Power Outages
Passive, Standalone and Zero Maintenance



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