



Energy Savings for Warehousing



Location

Eunos, Singapore



Size

Medium



Sector

Warehousing

Solution

ThermaClear[®]

13%
energy savings

Overview Savings Performance

In this case study, we explore the journey of a leading Singaporean company specializing in self-storage, business storage and robotic storage services. This enterprise faces the challenge of high energy costs across multiple facilities within Singapore and across Asia. To address this challenge, the company has implemented several energy efficiency measures that have achieved significant savings and benefits.

This case study outlines the collaborative efforts between the Singaporean self-storage company and ThermaClear® in implementing an energy-saving initiative. The following demonstrates the steps taken to achieve this goal.



13.2%
Energy Saving



13.5 mWh
Annual Saving

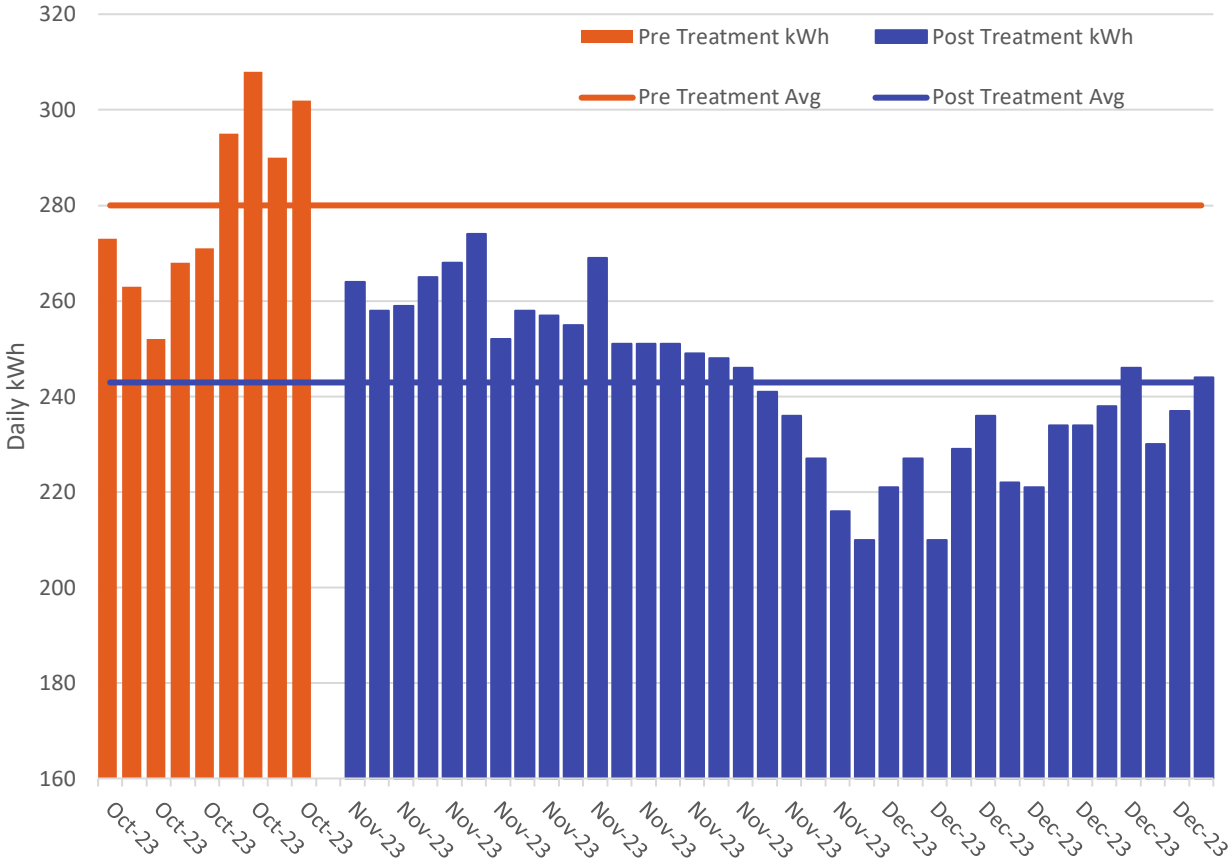


\$4,055
Annual Saving



1.3 yrs
Pay-back Period

Energy usage before and after ThermaClear®



This chart shows a self-storage facility’s daily energy use of an entire level’s air conditioners. Comparing normal usage (orange) with reduced usage post-ThermaClear® implementation (blue).

This demonstrates ThermaClear® effectiveness in lowering energy usage.

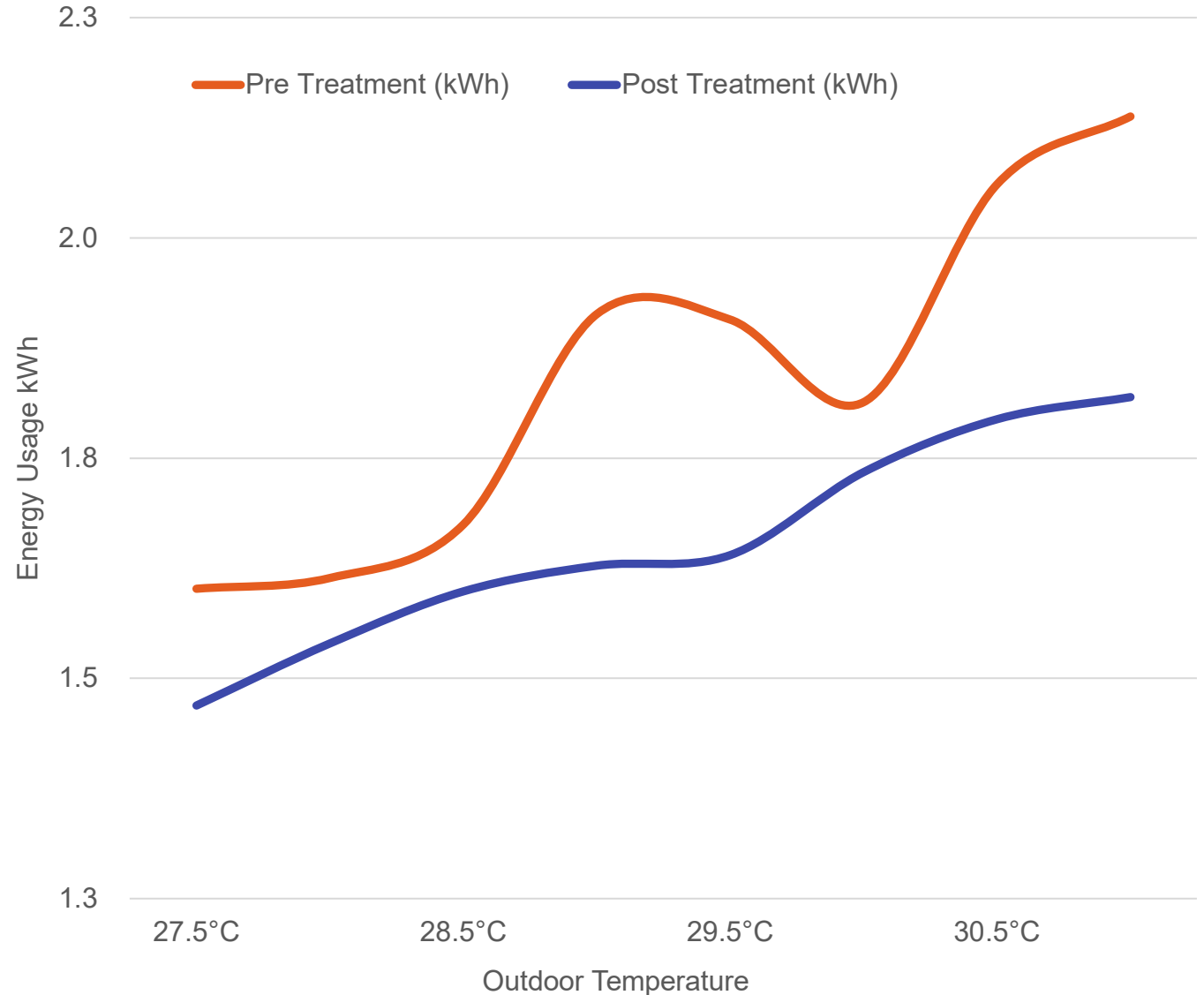
Equipment Details:

Sqft Covered	12,000 sqft
AC Manufacturer	三菱 Mitsubishi Electric
Redundancy	N+1, Only primary treated
AC Type	DX, Split
AC Age	4 years
Refrigerant	R410A
Yearly % Run Time	100%, 24/7/365

Energy Savings Independent of Weather Changes

This chart shows hourly energy usage linked to specific outdoor temperatures. For example, the energy usage of this AC at an outdoor temperature of 30.5°C is 2.1 kWh before ThermaClear® and 1.8 kWh after, at 13% reduction.

By linking outdoor temperature to hourly energy usage, it is clear to see that energy savings are not caused by external weather changes, but can be attributed to ThermaClear®.



Long-Term Value for Warehousing



13% Lifetime Energy Savings

ThermaClear® treated ACs will continue to have energy savings throughout the machine's lifespan.



Effortless to Implement

The treatment process took less than 1 hour with no interruption to the business.



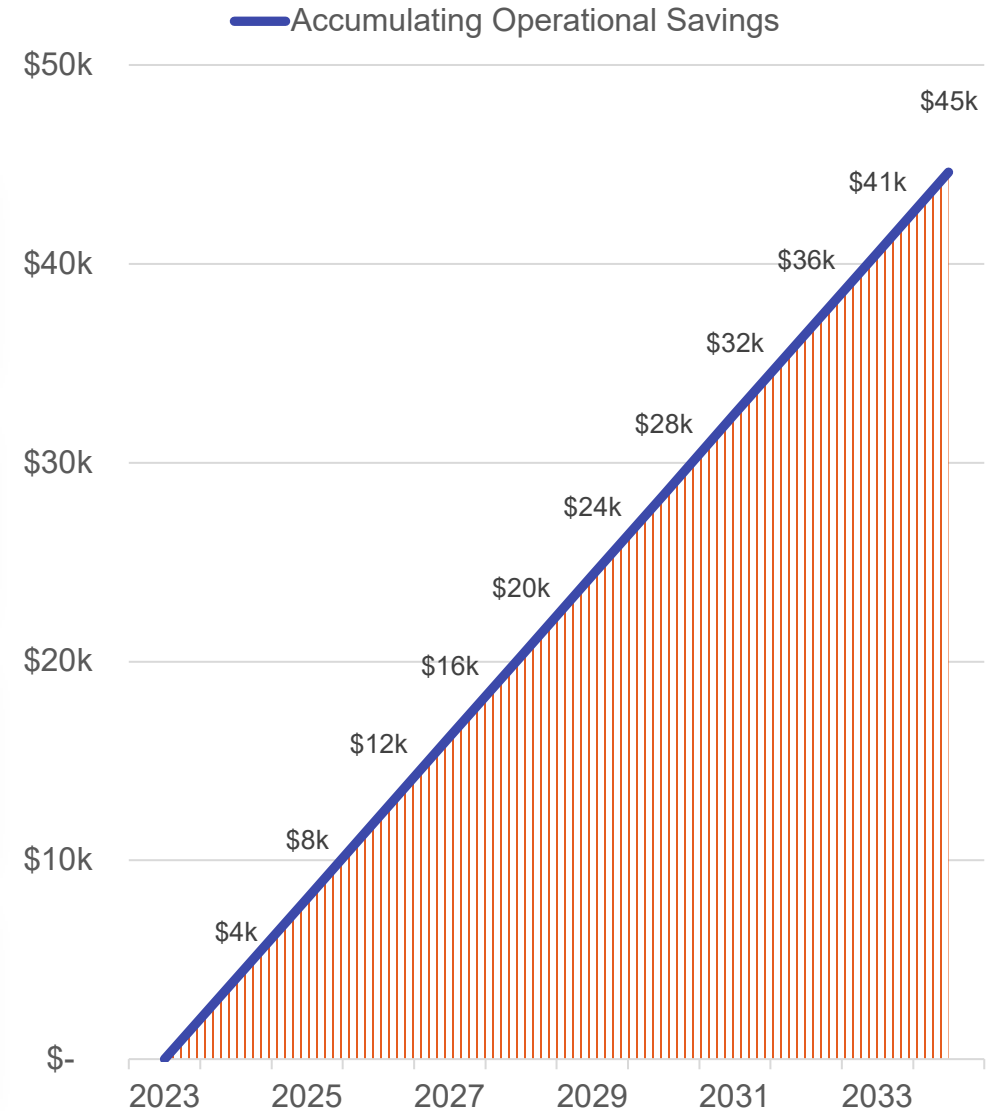
See Savings Fast

Energy savings confirmed within 2 months.



ThermaClear® Pays for Itself

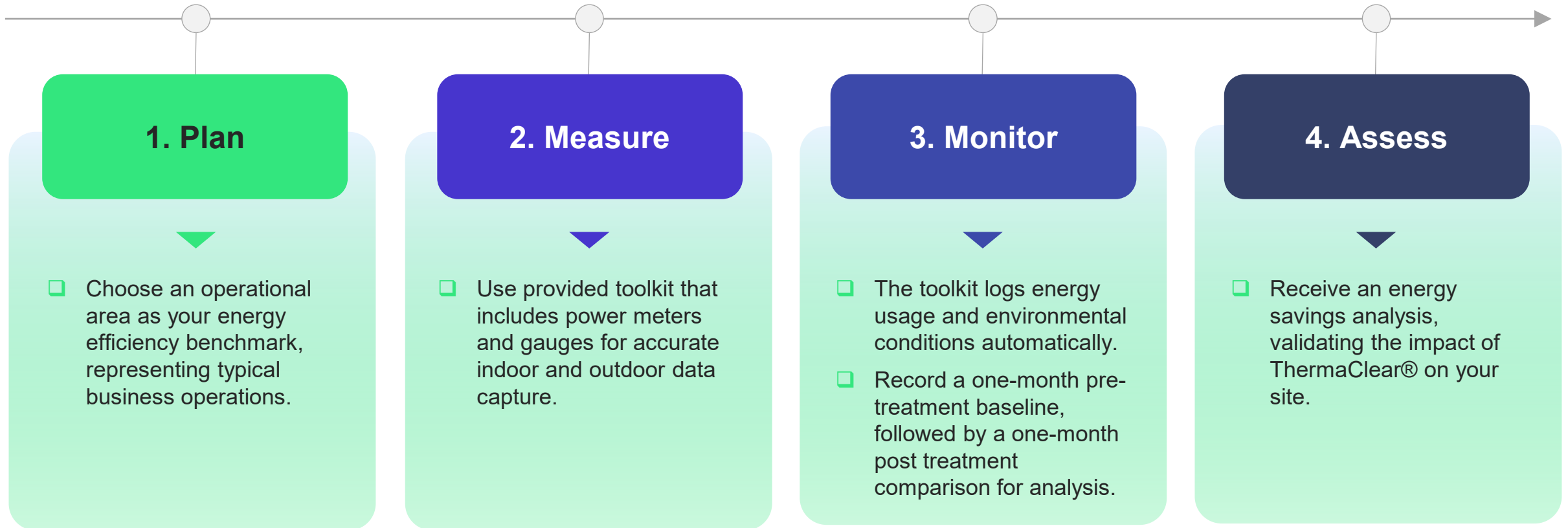
1 year, 3.5 month payback. \$44,605 accumulated savings over the remaining lifespan of the Acs.



Over two thousand air conditioning units have adopted ThermaClear® for energy savings.

The Step-by-Step Process for Energy Savings

The approach used to quantify energy savings in this case study.



* For source data contact: gogreen@acwise.com