
MT2030
CLIMATE
SUMMIT
SUN VALLEY 26
PRESENTED BY TORUS

Saving the Earth: One Roof at a Time!

Sun Valley Community School



Who We Are



- Representing the Sun Valley Community School as the Green Team
- Independent co-ed local private school
- Large Outdoor Program/Leadership Academy which fosters appreciation for our environment
- Working to reduce carbon emissions and energy usage throughout our community

PowderWatts
Intelligent Energy Controls



The Problem

Heat cables can run when they're not needed, wasting energy and money.

The Solution

PowderWatts uses cameras + AI to see what's happening on the roof and control the heat cables when they're actually needed.

What Is Powder Watts?





- **A smart-home technology setup that automates and controls rooftop heat cables**
- **Prevent ice dams while reducing winter energy waste**
- **Installed on SVCS Engl Hall heat cables**

Why Does It Matter?



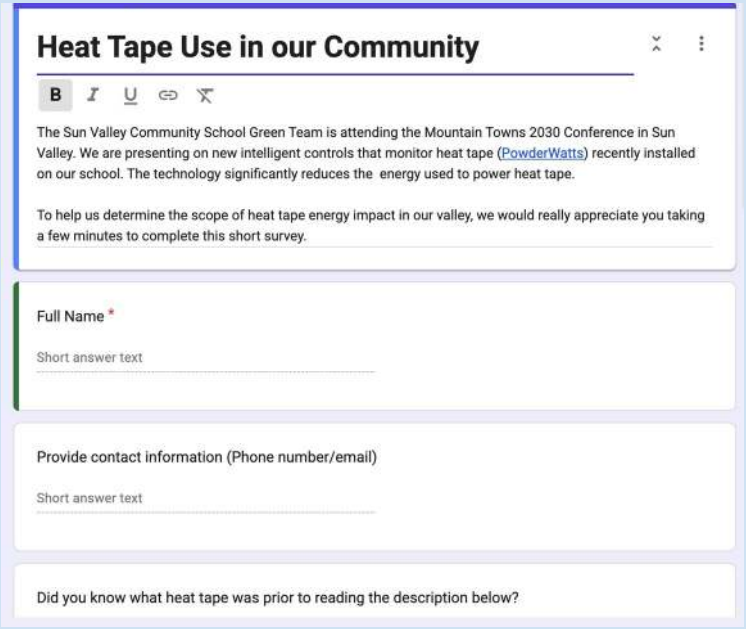
- Protect
- Save energy
- Save money
- Monitor



Surveying Our School Community

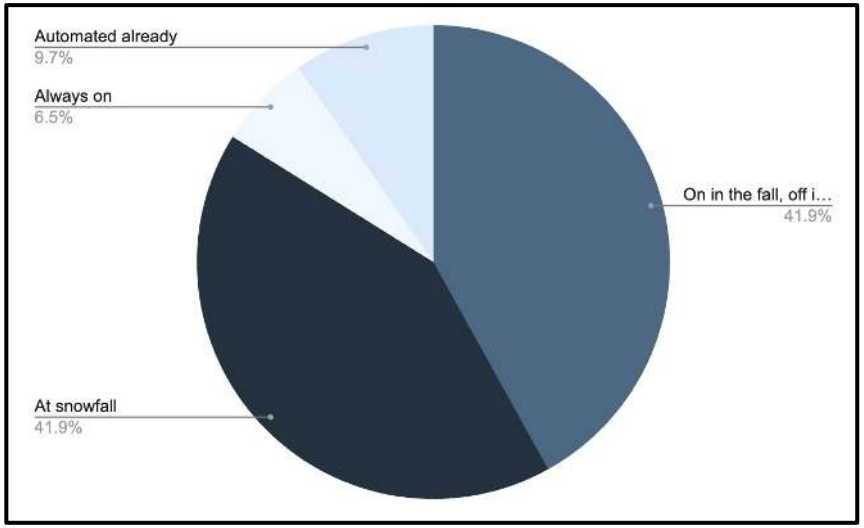
What possible energy impact would we have in the community if every Sun Valley Community School family had Powder Watts?

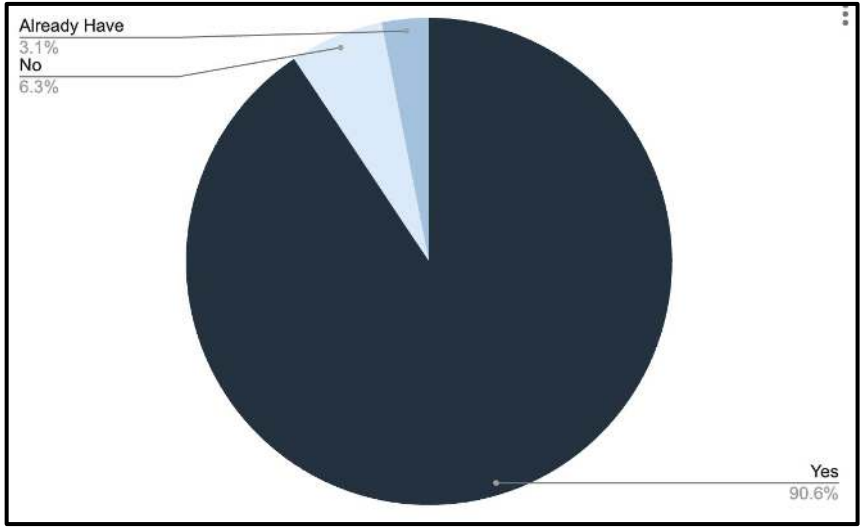




Survey Results

How often is heat tape used in our community and how much energy could be saved if families installed Powder Watts?





Savings

Cost of using heat tape for our school in one winter season (Nov 23-March 23)

Before Powder Watts:
~$1811

After Powder Watts:
~$362

How much money is saved?

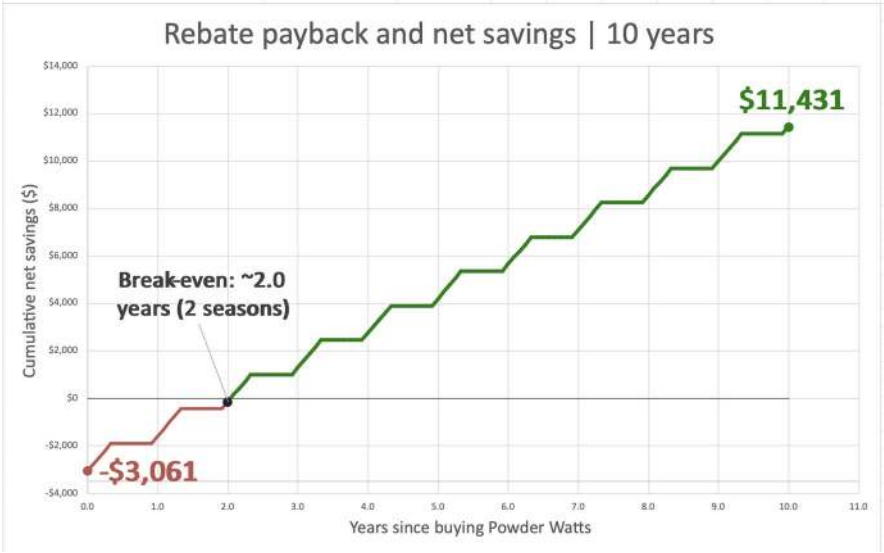
Per season:
~$1450

Percentage saved:
80%

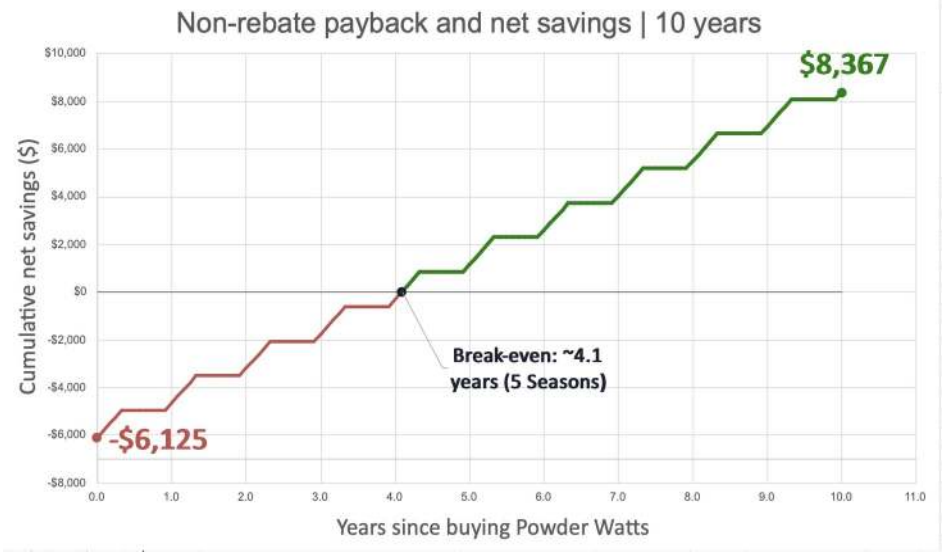


How long until Powder Watts pays for itself?

With a Rebate



Without a Rebate

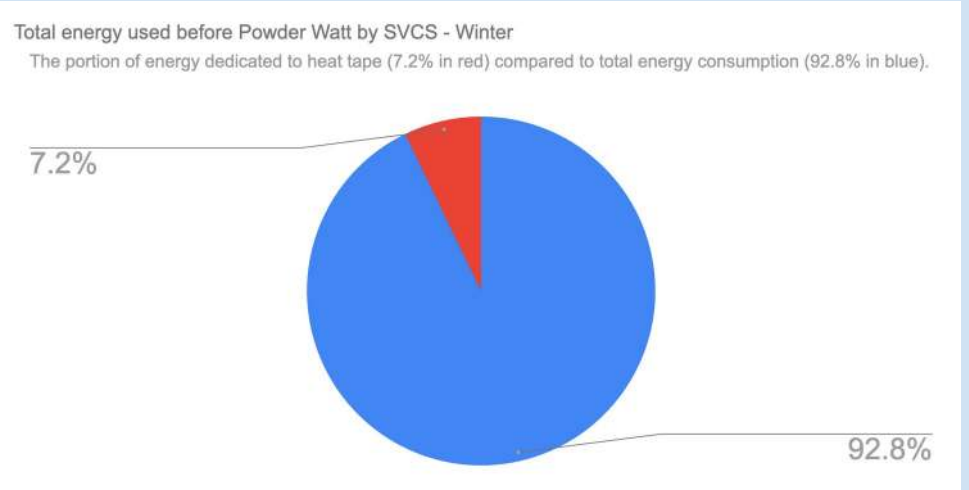


Cost for Powder Watts: $3061

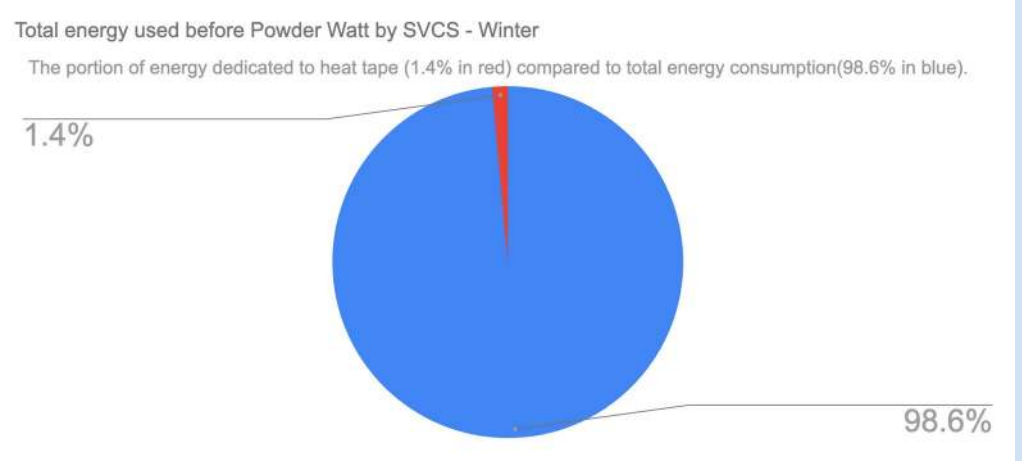
Cost for Powder Watts: $6125

Energy Consumption

Winter energy consumption before using Powder Watts



Community School's winter energy consumption after using Powder Watts



Carbon Emission Reduction

-Carbon emissions connected with using heat tape (43% of Idaho power's energy comes from C02 emitting sources)

Before Powder Watts:

~11,510 pounds of emissions

After Powder Watts:

~2,302 pounds of emissions

-Carbon Emission comparison to a Ford Explorer:

Before:

~11,200 to 13,500 miles

After:

~2,350 to 2,820 miles at 24 mpg

Conclusion

If 71% of SV community has heat tape, energy could be reduced from 7% to 1% when monitored.

- Reduces energy demand
- Reduces carbon emissions
- Saves money
- No negative impacts



Thank You!

