
MT2030
CLIMATE
SUMMIT
SUN VALLEY 26
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Smarter heat tape: An actionable way to implement energy efficiency

Lower bills, easier maintenance and less carbon from the heat tape already on your roofs

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PowderWatts
Intelligent Energy Controls



Often energy efficiency projects force a trade-off between a few competing factors



Upfront investment



Payback period



Ongoing cost



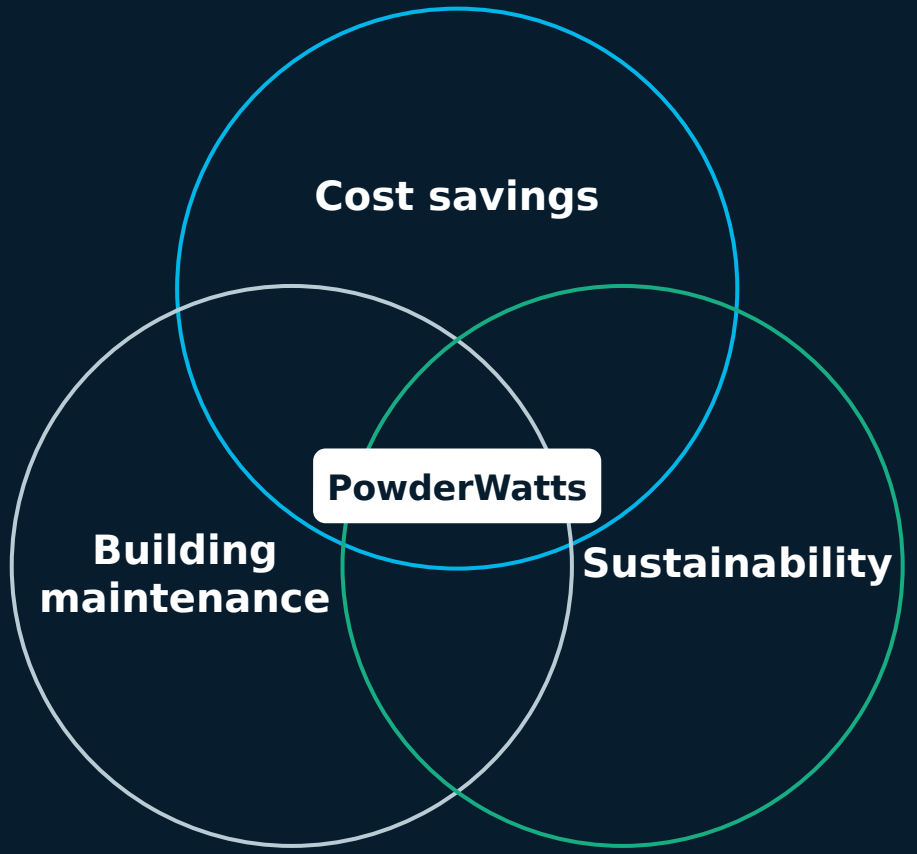
Climate impact



Impact on people

Most projects have to win on cost and payback first, and paybacks past 5–10 years often stall them

PowderWatts sits where cost savings, maintenance and sustainability meet



- **Cost savings**
  Tens of thousand per year.
  5–20 months. Qualifies for rebates.
- **Building maintenance**
  Visibility of roof and alerts when heat tape breakers are offline help catch ice dams before they happen. Prevent Damage
- **Sustainability**
  Significant reduction in annual energy usage from heat tape cables. 500+ tons third-party documented CO_2e avoided.

A win for every decision-maker

Finance Team

Lower operating cost. Rebates shorten payback.

Facilities Team

Circuit alerts and roof visibility between inspections.

Sustainability Team

Metered electricity savings and documented CO_2e reductions.

Across every building with existing heat cable



How Powder Watts works

Roof images and circuit readings tell the system when to melt each section AND give real-time protection.

Roof camera



Checks REAL conditions at the heat tape in real-time.

Wireless

Data

POWDER WATTS CLOUD

Realtime Roof Conditions

Computer vision processes

Snow, ice and melt channels

Also meters all energy

Command vs. electrical draw

HEAT / STANDBY

Alerts on unexpected behavior

Heating commands

Your app



Existing heat cables

Stay in place ✓

Smart switches

Meter and control each circuit
ACTUAL CO_2e savings reported at the circuit level.

Local hub

Connects devices to the internet

Portfolio visibility

Roofs, alerts and **savings**

Heat tape keeps a melt channel open so ice dams can’t form at the roof edge

1. **Snow melts on the warm roof**
   Heat escaping the building melts the snowpack from below
2. **Meltwater refreezes at the cold eave**
   Ice builds up into a dam that traps water behind it
3. **Heat tape keeps a path open**
   Water drains through the melt channel instead of backing up



A melt channel on a monitored roof

Essential to buildings in Mountain Towns: it protects roofs, gutters and the people walking below.

The hidden problem: heat tape often runs when it isn’t needed, and a failed circuit often goes unnoticed until damage shows up.

What is the outdated practice of nonstop roof heating costing our climate?

Small building



10 circuits

110 MWh

≈10 U.S. homes for a year

46 chairlift operating days

Mid-size building



30 circuits

329 MWh

≈30 U.S. homes for a year

One 140-day chairlift season

Large hotel



180 circuits

1,980 MWh

≈184 U.S. homes for a year

About six chairlift seasons

Actual 2.5 kW/circuit for 183 days, rounded. Real consumption benchmarks, before Powder Watts savings.

Imagine Carbon-Free Chairlifts

PowderWatts adds circuit-level control and visibility to the heat tape you already have

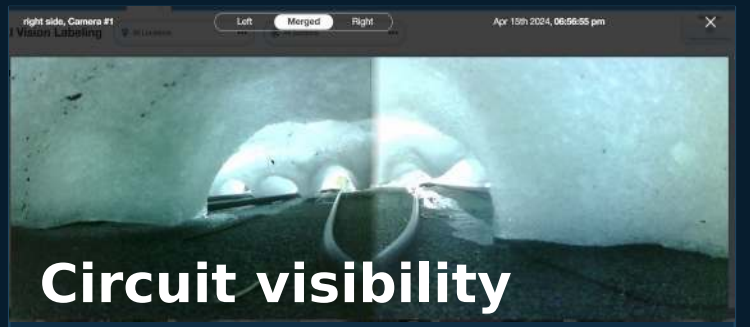
Roof cameras and circuit readings tell each heat-tape circuit when to melt and when to stand by.

Low cost

Retrofits onto the existing heat cable or hotedge; nothing on the roof is replaced

Fast payback

- 5–20 months
- Thousands returned to operating budget each year
- Customer Utility Rebates



Circuit visibility

Alerts on tripped breakers and failed cables, without a winter roof climb

Works on any building type: lodges, condos, townhomes, schools and municipal buildings

PROVEN AT MOUNTAIN RESORTS

At Deer Valley, Powder Watts cut winter heat-tape electricity by about 90%

≈90%

winter energy reduction, metered on controlled circuits

727 MWh

electricity saved per year (46 circuits)

503 t

CO_2e avoided per year

5–20 mo

simple payback
utility rebates available

For facilities: alerts flag tripped breakers and failed cables before damage becomes the first warning.

UTILITY SAVINGS — INCLUDING TAXES

Period	Electricity saved	Energy savings	Demand savings	Total savings
Winter · 6 months	344,368 kWh	$16,142.18	$11,634.39	$27,776.57
Summer · 6 months	382,632 kWh	$19,500.12	$12,404.71	$31,904.83
Annual total	**727,000 kWh**	**$35,642.30**	**$24,039.10**	**$59,681.40**

Schedule 6 + current riders + 15.55% tax. Assumes baseline operation and 87.4 kW removed from every monthly peak.
Six months per season;. Annualized at current rates, Powder Watts Protect monthly/yearly CV platform enables intelligent energy control savings

The same upgrade works on the heat-taped buildings in your town

- **Municipal buildings**
- **Schools**
- **Lodging and condos**
- **1970s townhomes**
- **Retail**
- **Resort base areas**

ONE 10-CIRCUIT BUILDING

99 MWh

electricity saved per winter

68 t

CO_2e avoided per winter

Any building already running heat tape is a candidate, with no new cable on the roof

Modeled estimate: 10 circuits, six-month winter, ~90% reduction versus continuously enabled legacy control (slide 16 of this deck). Actual savings depend on each building.

47 utilities already offer rebates that cut the upfront cost

44

utilities already participating in PowderWatts rebates

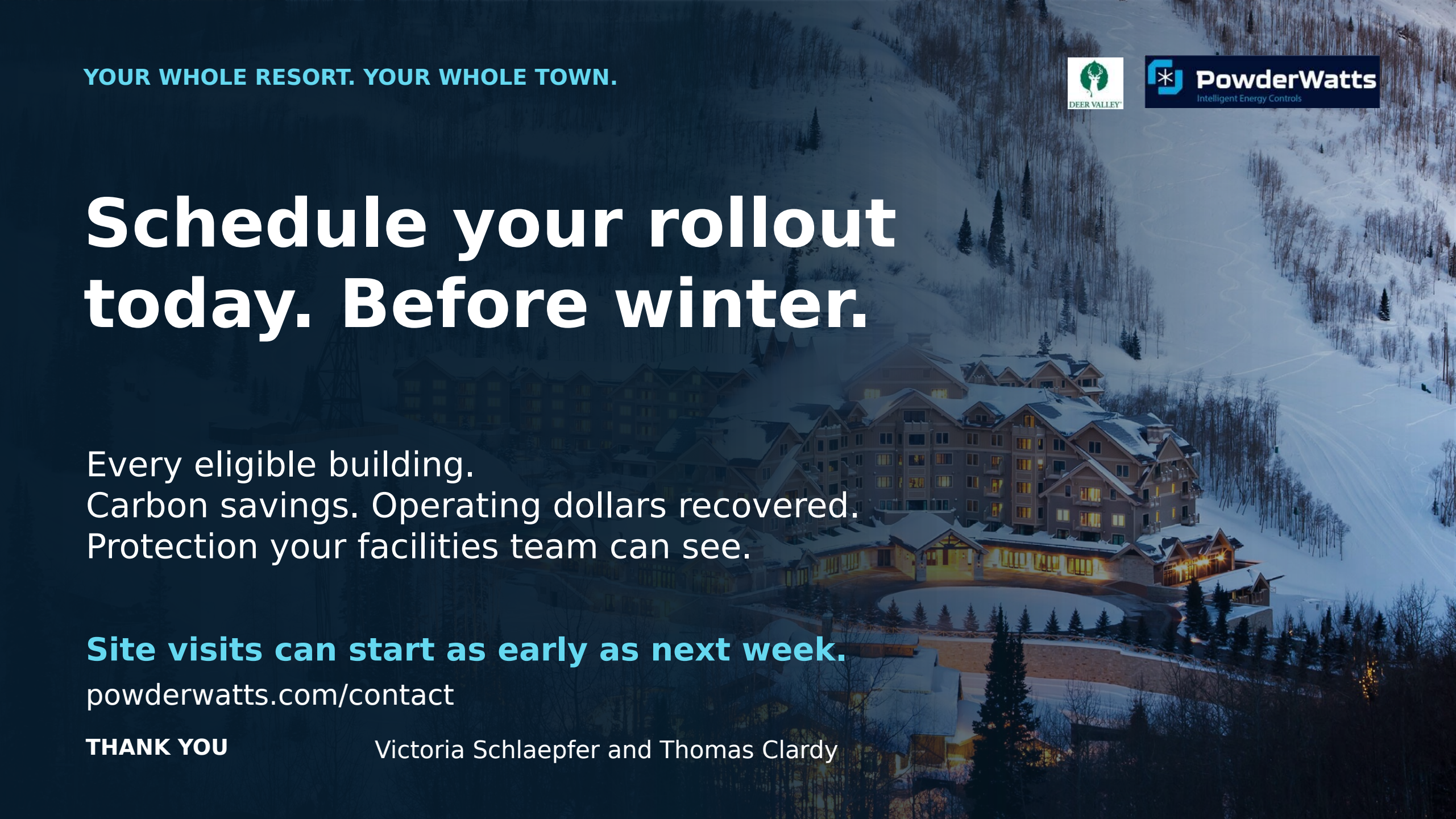
Rebates are likely available for you, and if not, we'll help make the case.

YOUR WHOLE RESORT. YOUR WHOLE TOWN.

DEER VALLEY®

PowderWatts
Intelligent Energy Controls

Schedule your rollout today. Before winter.



Every eligible building.
Carbon savings. Operating dollars recovered.
Protection your facilities team can see.

Site visits can start as early as next week.

powderwatts.com/contact

THANK YOU

Victoria Schlaepfer and Thomas Clardy

Appendix of Slides

BACKUP DETAIL FOR Q&A

How AI decides when to heat

The melt channel shows the need. Electrical data verifies the response.



AI interpretation illustrated on an actual roof image

CONTROL DECISIONS

HEAT

The melt zone still needs heat

Switch ON and monitor for proper melting.

STANDBY

The melt channel is open

Switch OFF. Continue real-time monitoring.

ALERT FACILITIES

On either poor melting or anomalous energy draw

Facilities team can GET AHEAD of ice dams

EVERY ACTION IS CHECKED

Command → **Metered response** → **Next roof observation**

See when the heating has done its job







Snow around the cable

Observe the melt zone- new snow / ice detected

A melt channel forms

Clear melt path ensured

An open drainage path

Enter energy-saving standby mode – await new snow/ice

Real roof observations. Monitoring continues while heating is in standby.

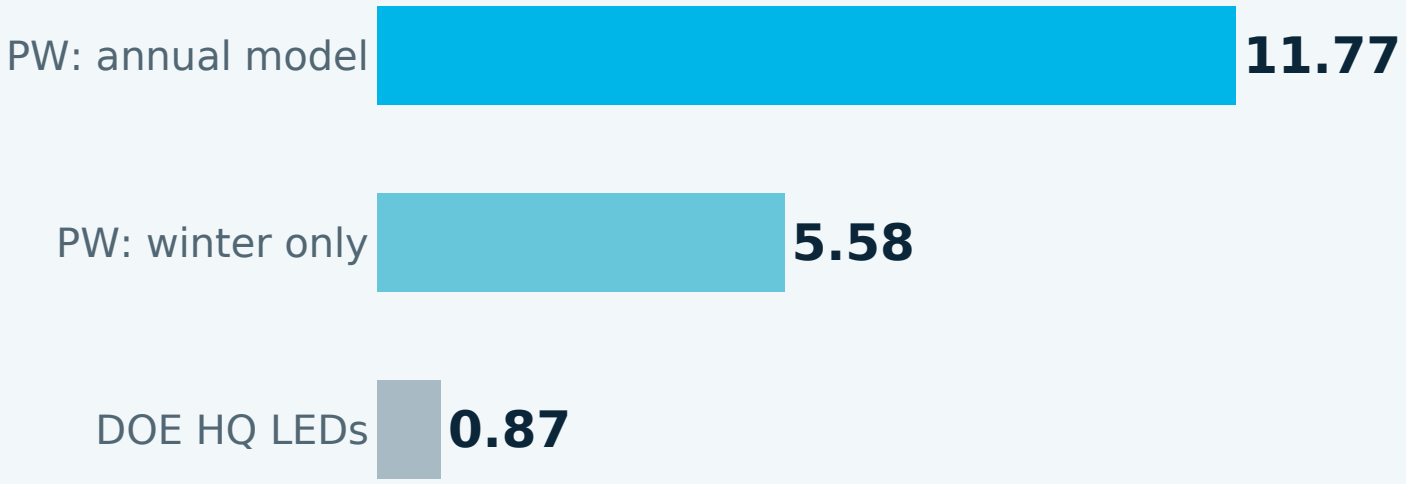
Scheduling starts today

01	**Compile the building list**	Include every property with electric roof heat cable.
02	**Name the facilities contact**	We coordinate circuit inventory and site access together with facilities.
03	**We deliver your savings report**	Carbon, MWh, dollars, rebates, and payback by building.
04	**Book the rollout**	Site visits can start as early as next week. Plan installation before winter.

Talk with the PW team today to schedule the portfolio rollout. Powder Watts prepares the report and coordinates the next steps.

LED and heat-pump comparisons

Annual MWh saved per $1,000 installed



SIMPLE PAYBACK

Powder Watts

12–20 months

Heat-pump reference

7–18 years

Both before rebates

DOE historical lighting project. ACEEE 2020 cold-region commercial heat-pump study. Different sites and services.

Earlier warnings of any heat tape issues = vastly superior roof protection



The roof image

Did the protected drainage path open?

The electrical response

Did the cable draw the power expected?

A mismatch triggers a facilities alert.

Tripped breakers, failed cables, and stalled melting become actionable facilities warnings.