MOUNTAIN TOWNS 2030

SOLUTIONS LAB · TUE, OCT 13 · 1:15-3:30 PM

Solutions Lab: Sustainable Buildings (Hosted by Schneider Electric)

Buildings drive much of a mountain town's emissions and are its first defense in fires and outages. Presenters covered smart heat tape controls, resilient design, Denver's electrification playbook, hemp insulation, all-electric codes in Colorado towns, and what LEED Gold cost one Park City developer.

KEY TAKEAWAYS

1. **Heat tape is a big load you can fix fast.** Camera and circuit-level controls cut heat tape electricity about 90% at four Deer Valley lodge buildings: 727 MWh and about $60,000 a year.
2. **Codes beat voluntary programs.** Codes lock in performance for a building's lifetime. Crested Butte adopted an all-electric code in 2022; its gas homes emit 20% more carbon per square foot.
3. **Turn avoided infrastructure into incentives.** A Denver affordable project avoided a $200,000 gas line by going all-electric; Xcel proposed $10,000 per home.
4. **City buildings prove the case.** Denver's geothermal rec center carried a 3% premium, more than offset by tax credits and incentives. Parks and Rec now uses ground source heat pumps as its standard.
5. **Efficiency buys time when systems fail.** A tight, well insulated envelope keeps people safe longer in an outage or road closure. Fire-resistant materials help responders instead of fueling the fire.

WHAT LOCAL OFFICIALS CAN DO

- ☐ **Inventory every building running heat tape** and ask your utility about control rebates.
- ☐ **Plan an all-electric code in steps.** Ridgway's $1.33M state grant funds outreach, a town hall retrofit and $900K+ in incentives before a 2028 vote.
- ☐ **Target the biggest loads.** Aspen exempts gas fireplaces and cooktops (under 2% of building emissions) but requires electric snowmelt and pool heat.
- ☐ **No code authority? Use fees and incentives.** Ophir, with no gas service, charges an offset fee when new homes heat mainly with propane.
- ☐ **Design efficient first, then right-size heat pumps.** Train trades and residents.
- ☐ **Drill city geothermal so neighbors can connect later.** Denver's rec center bore field anchors a community thermal network.
- ☐ **Specify bio-based materials.** Hemp, straw, wood and cellulose insulation can store carbon instead of emitting it.

BY THE NUMBERS

727 MWh Saved yearly at Deer Valley lodges	**5 to 20 mo** Heat tape payback, with rebates
$50M/yr Denver climate fund from a 0.25% sales tax	**15% to 45%** Heat pump share of Denver permits since 2023
$1.33M Ridgway's state electrification grant	**15.6%** Cost premium for LEED Gold townhomes

WATCH OUT FOR

- ! Contractors may steer residents back to furnaces, and unfamiliar trades pad early all-electric bids.
- ! Gas prices swing: one Deer Valley HOA levied a special assessment to pay a midwinter snowmelt gas bill.

RESOURCES

Denver Climate Action Office
denvergov.org/climate

Ruby Hill Thermal Network
rubyhillthermalnetwork.com

EcoAction Partners
ecoactionpartners.org

Colorado Low Energy and Carbon Code
State minimum code; towns may go above it

CONTACTS

Caleb Shin
Schneider Electric (moderator)

Thomas Clardy
Founder & CEO, Powder Watts

Victoria Schlaepfer
Climate Fund Manager, Park City Community Foundation

Jamie Wolff
Architect, OZ Architecture

Jonathan Rogers
Deputy Executive Director, Climate Action, City and County of Denver

Matthew Mead
Founder & CEO, Hempitecture

Kim Wheels
Special Projects Coordinator, EcoAction Partners

Kimberly Schlaepfer
Managing Director of Climate Mitigation & Resiliency Planning, Lotus Engineering & Sustainability

Tony Tyler
Columbus Pacific Development

Watch this and every SV26 session recording
mt2030.org/sv26sessions · Use the attendee password.

Summarized from the session recording and presenter slides. Figures are as presented; confirm with presenters before citing.