MOUNTAIN TOWNS 2030

SV26 SESSION ONE-PAGER
CLIMATE SOLUTIONS SUMMIT · SUN VALLEY, IDAHO

WORKSHOP · TUE, OCT 13 · 2:30-3:30 PM

Whose Loop is it Anyway? A TEN Governance Panel Focused on Mountain Towns

Thermal energy networks (TENs), shared loops of water-filled pipe that trade heat with the ground, are proven technology, but projects stall on who pays, who owns and who operates. Leaders from Hayden, Vail, Breckenridge and Park City compared how they are answering those questions.

KEY TAKEAWAYS

1. **Governance, not geology, decides if a TEN gets built.** Feasibility studies usually confirm the ground works. Projects stall when no one can say who will finance, own and operate the system.
2. **Towns with utilities can run a TEN like water.** Hayden already runs water, sewer and trash, and will meter and bill heat the same way, with about a half to one added FTE. Pipe warranties run about 80 years.
3. **Public-private models fit towns without utilities.** Vail can't bill for heat, so it is exploring a third party that designs, builds and sells heat, with its electric co-op, Holy Cross Energy, possibly buying the system later.
4. **Sell stable costs, not just returns.** Natural gas spot prices swung between about $4 and $10 over five years. A TEN locks in heating costs for decades, and lower bills are the strongest pitch anywhere.
5. **Direct pay tax credits make the math work.** Towns can take federal geothermal credits as direct pay. Hayden, a coal transition community, gets about 50% instead of 30%, and the credits are available through 2032.

WHAT LOCAL OFFICIALS CAN DO

- ☐ **Name the problem first.** Decide if you're cutting costs, stabilizing them, cutting carbon, or all three, and who will come to the table to solve it.
- ☐ **Decide who owns and operates before you study.** Treat it like any utility: plan for upfront capital and 30 to 40 year amortization.
- ☐ **Start with one node and one customer.** Breckenridge and Vail began with town buildings, like Vail's library and ice arena, to avoid needing buy-in from many owners.
- ☐ **Use state grants for feasibility.** Both Colorado towns funded studies with Colorado Energy Office grants. Vail has spent about $500,000 on design and feasibility so far.
- ☐ **Look for waste heat partners.** Wastewater plants and mine water hold a lot of heat. Park City's sewer district wants to offload it, and Vail's could help keep Gore Creek cool.
- ☐ **Educate with pictures, tours and plain words.** Call it a pipe of water in the ground, pick one term and stick to it, and borrow peer towns' public studies and costs.

BY THE NUMBERS

15
Commercial buildings planned on Hayden's TEN

30% to 50%
Hayden's federal tax credit as a coal transition town

~$500K
Hayden's savings from hauling drilling mud itself

$1M/yr
Cost to run Vail's town snowmelt system

$50M to $70M
Estimated cost of Vail's full network vision

~$40K/yr
Hayden's estimated maintenance cost, with electricity

WATCH OUT FOR

- ! Colorado's gas pilot law requires 100% customer buy-in, nearly impossible across many owners, so Breckenridge started with town buildings.
- ! Words matter: a "geothermal" test hole drew radiation testing demands in Utah. Park City now says "thermal energy test hole."

RESOURCES

Colorado Energy Office
State grants for geothermal feasibility and design

Colorado Mesa University
Campus geothermal network cited as a working model

EIA natural gas prices
eia.gov/naturalgas

CONTACTS

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