

RICO GEOTHERMAL COALITION

Exploring Geothermal Potential in Rico, Colorado

Supporting Rural Decarbonization & Cultivating Small-Town Resilience

COMMUNITY CONTEXT

Rico, Colorado is a historic mountain town of fewer than 300 residents, perched at 8,827 feet in the San Juan Mountains. Incorporated in 1879 as a silver mining hub, even today, Rico lacks natural gas infrastructure. Residents rely almost entirely on propane and wood for heat, and a single power line subject to frequent outages delivers electricity to the town.

THE OPPORTUNITY

Below Rico's surface lies significant potential for energy independence. Artesian boreholes drilled decades ago reveal a hot water resource north of town, and recent investigation points to a second hydrothermal anomaly to the south. Geologic features indicate a substantial, untapped geothermal reservoir that could offer Rico energy resilience and greater economic agency.

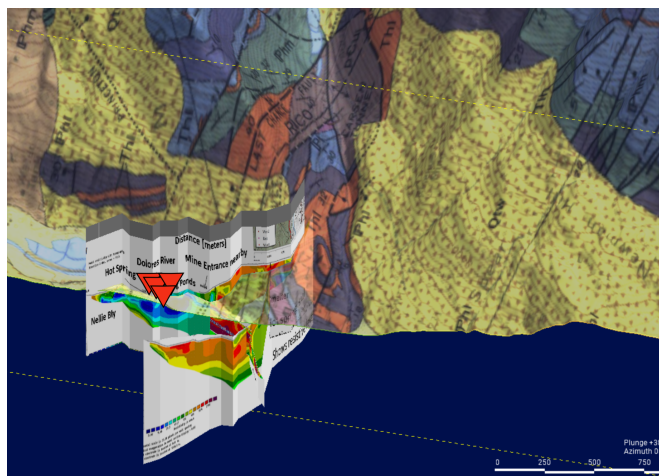
The Rico Geothermal Coalition (RGC), formed in 2022, is exploring Rico's geothermal resource, researching feasibility of a district heating system that would use a thermal energy network (TEN) to heat the town's homes and structures (~215 buildings). If this potential is realized, Rico would be the smallest Colorado town to implement such a system, providing a replicable model of community-led geothermal development.

PROGRESS TO DATE

Phase 1 (2024): Funded by a \$100K Colorado Energy Office grant, Teverra — a subsurface geoscience and engineering firm — built a 3D integrated model of Rico's geothermal system synthesizing geology, temperature measurements, geophysical surveys, geochemical analysis, and historic observation.

Teverra developed two conceptual fluid-flow models, both targeting the natural porosity and fracture networks in two promising rock formations: the **Leadville Limestone** and the **Hermosa Formation**.

Phase 1 results confirmed these formations as viable reservoir candidates. This research will help RGC pinpoint a favorable location for a test well, reducing financial and technical risk.



Teverra's modeling of Rico's geothermal resource

Phase 2 (2025–ongoing): A \$200K Colorado Energy Office grant funds the drilling of a monitoring well (80–350m depth) north of town and initial district heating network design.

KEY NUMBERS

<300

Residents

~215

Buildings

115°F

Surface expression temp

248–284°F

Est. reservoir temp

5-30 gpm

Surface expression flow rate

\$300K

Funding secured

(Phase 2, continued) Drift Consulting Solutions will manage test well drilling, and the data collected will refine the model and inform next-phase construction decisions.

COMMUNITY SUPPORT

A 2025 town-wide survey (30% participation) showed strong interest in geothermal development, contingent on cost and preserving Rico's character:

61% interested in geothermal heating for their home

71% favor geothermal for commercial & municipal buildings

77% support integrating geothermal w/other town excavation work

Nearly 60% of residents rely on propane as their primary heat source; 23% rely on wood. Over 30% report their heating system resiliency is questionable when Rico loses power.

VISION

A successful Phase 2 opens the path to a locally-sourced, community-owned energy asset. The project could eliminate dependence on imported propane, generate revenue through a heat-distribution model, support workforce development via new economic opportunity, and serve as a blueprint for rural geothermal initiatives.

FINANCIALS

Phase 1 was made possible by a \$100K grant from Colorado Energy Office, which also provided \$200K for Phase 2. Drilling and validating a monitoring well in alpine terrain is a capital-intensive undertaking. Phase 2 requires an additional \$170K to complete. We are actively seeking funding for the next implementation phases- A comprehensive TEN system design, production well, district heating utility development and construction.

PARTNERS

Teverra LLC · Colorado Energy Office · Western Colorado University · Drift Consulting Solutions · Town of Rico · Clear Energy Economy for the Region (CLEER) · Bedrock LLC · San Miguel Power Association · EcoAction Partners · Rico Land Collaborative · National Laboratory of the Rockies · Honest Architecture LLC

"The characteristics of the Rico geothermal system are well aligned with the requirements of a community-scale Thermal Energy Network. TEN systems prioritize moderate temperatures, reliability, and distributed heat extraction — making them particularly suitable for low- to medium-temperature geothermal resources."

— Daniel Alonso Torres, Principal Geoscientist, Teverra LLC