



Committed to the future of rural communities.

Kentucky—Rural Utilities Service

Alternative Energy

Kentucky Mental Health Provider Switching to Geothermal Energy

Outline Of Need:

Kentucky River Community Care (KRCC) is a community mental health provider in Hazard, Ky. Its current facility is 30 years old and has the original HVAC system — which has been deemed costly and inefficient to operate.

How Rural Development Helped:

With a RD CF loan and grant combo totaling \$376,000, KRCC will be able to install a new geothermal heating and cooling system that will reduce energy consumption and create less pollution.

The Results:

KRCC is a community mental health provider serving eight Appalachian Counties — Breathitt, Knott, Lee, Leslie, Letcher, Owsley, Perry and Wolfe — in southeastern Kentucky. Their office, located in Hazard, offers individual and group counseling services and psy-

Fast Facts

Program: Community Facilities
Investment: \$376,000 Loan and Grant
Partners: Hazard, Ky.
Congressional District: KY-5

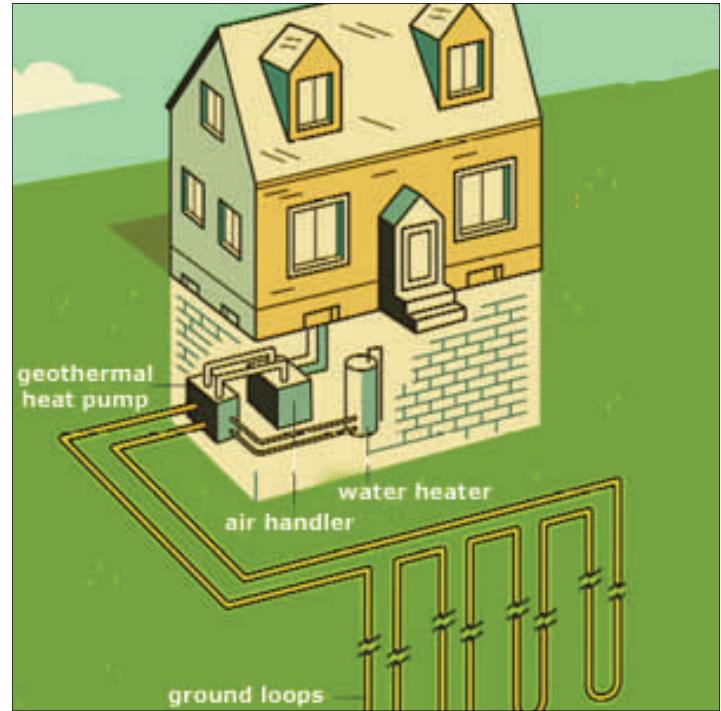
Demographics

- Persistent Poverty County
- Rural Population—4,600

Impact: • Reduction in Carbon Dioxide Emissions

- Reduction in Operating Costs
- Increased Efficiency

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An example of a geothermal heat pump is shown above.

chiatric services to approximately 1,700 rural clients each month. The facility is approximately 30 years old with an HVAC system that is operating at 20-25 percent less efficiency than similar units. The existing heat pumps outlived their serviceability after about five years and the boiler, though still in working condition, operates at 80 percent efficiency compared to newer units that operate at 96 percent efficiency.

It is estimated the center currently emits an excessive 362 tons of CO₂ annually. The analysis of the existing HVAC system indicated the cost of replacement or repair would be prohibitive compared to the cost of installing a new geothermal system. As well as providing effective and efficient heating and cooling needs, the geothermal system will reduce annual CO₂ emissions by an estimated 149 tons and reduce annual operating costs by approximately \$22,100.

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