

Rural Ulster Preservation Company, Inc.

Woodstock, New York



Sustainability Assessments and Master Planning



In October, 2008 we conducted an SSC Green Audit at Rural Ulster Preservation Company, Inc. (RUPCO), surveying their employees, calculating their carbon footprint, and suggesting the most strategic and cost-effective way to go green.

RUPCO has been taking progressive steps in providing affordable housing. The Kirkland Hotel, a 20,000 square foot mixed use building (restaurant, office & residential), is great example of utilizing existing structures and helping to revitalize a community. When RUPCO took on this aggressive project of restoring an historical hotel in downtown Kingston, NY, located just a few blocks from their other offices, they found going green not only essential, but cost effective even in the short run.

Installing a Geothermal Heat Pump System (at times referred to as a Geoexchange System) in the Kirkland Hotel became a priority for three main reasons:

1. Energy efficiency and sustainability
2. Lack of surface area for remote condensing (AC) units

3. Limited building wide infrastructure requirements. The system itself includes 20, 300-foot wells dug under the parking lot, redundant circulators with variable speed drives, and 20 heat pumps (between 3 and 5 ton units).

There were no special challenges to installing the system outside of the typical construction related coordination. Although the numbers show a fairly quick payback for the system, RUPCO was still able to use a grant from Home Depot and the NYSERDA loan fund program to help finance the system.

It is both important and exciting to note that with the exception of natural gas to supply the cooking and hot water needs of the restaurant, the building is now completely free of fossil fuels.

A brief look at costs and current numbers is below:

- Total cost of system: \$600,000
- Total cost of a traditional HVAC system would have been: \$300,000
- Estimated payback time of entire system: 7 years
- Each apartment unit (600 square feet) monthly utility cost: \$35
- 3500 square feet of office space for two months (includes all power requirements and cooling): \$263.61



Client

Rural Ulster Preservation Company, Inc.

Industry

Non-profit, Affordable Housing

Contact

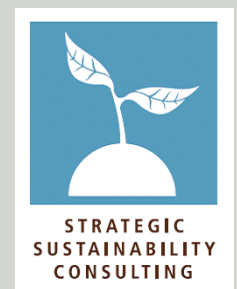
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