

# Building Fact Sheet

## Media Contact

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## About Our Facilities

At Renewable NRG Systems, how we work is as important to us as what we do. Our long-standing commitment to lean manufacturing has increased our flexibility and productivity, reduced costs and waste, and enabled us to maintain tight controls on product quality. Likewise, our manufacturing facility prioritizes efficiency and sustainability. By investing in advanced technologies and powering our building with renewable energy, we have minimized our environmental impact and essentially prepaid our energy bill for the long term. When our facility was built in 2004, it was one of only five industrial facilities in the world to receive LEED Gold certification from the U.S. Green Building Council.



The Renewable NRG Systems headquarters incorporates environmental stewardship into the workday

## Energy Efficiency and Renewable Energy

- 199.1 kW solar photovoltaic installation
- Solar hot water system with rooftop collectors
- Wood pellet heating system with 98% efficient backup propane boilers
- Radiant floor cooling systems; direct well water cooling in 60 Riggs building
- Demand-controlled ventilation with CO<sub>2</sub> monitoring in open office areas
- Automatic daylight harvesting controls and occupancy sensors
- High efficiency windows and skylights; south-facing windows to maximize daylight
- Super-insulated and airtight structure
- ENERGY STAR-rated computers and appliances
- White reflective roofs on warehouse to reduce heat gain

## Indoor Air Quality

- Exceeds ASHRAE air quality standards
- Natural ventilation via operable windows
- Low or no volatile organic compound-emitting stains, paints, adhesives, and sealants
- Formaldehyde-free composite wood

## Sustainable Planning and Design

- Native plant landscaping to minimize irrigation; effective stormwater management
- Reduced building footprint to minimize disruption to natural systems
- Alternative transportation facilities: bike shelter, EV charging station, bus service
- Full cutoff outdoor lighting with motion detectors to reduce light pollution
- Dual flush toilets and water-saving devices

## Earth and Human-Friendly Materials:

- Furniture made in Vermont from lumber cleared both on-site and through sustainably harvested practices with the Forest Stewardship Council
- Concrete flooring to minimize maintenance, dust, and allergens
- Recycled steel structure constructed from cars, cans, and appliances
- Recycled content floor tiles in restrooms
- No chlorofluorocarbons

## Key Facts

	Building #1 (110 Riggs Rd.)	Building #2 (60 Riggs Rd.)
<b>Completion date</b>	2004	2008
<b>Size</b>	46,000 f <sup>2</sup>	31,000 f <sup>2</sup>
<b>Cost</b>	\$7.8 million	\$9.1 million
<b>Cost per square foot</b>	\$168	\$294
<b>Building footprint</b>	30,595 f <sup>2</sup>	21,000 f <sup>2</sup>
<b>LEED rating<sup>1</sup></b>	Gold	Gold
<b>LEED and renewable energy features cost</b>	\$13.81 per f <sup>2</sup> (8.21% of total cost)	\$17.70 per f <sup>2</sup> (6% of total cost)

## Environmental Stats

	Building #1 (110 Riggs Rd.)	Building #2 (60 Riggs Rd.)
<b>Energy use</b>	Uses ¼ the energy of a similar building built to 2004 codes	Uses ½ the energy of a similar building built to current codes
<b>Renewable energy production</b>	Upon completion in 2004, about ½ the electricity was renewable (90,000 kWh per year supplied by solar photovoltaics and 6,000 kWh supplied by a 10 kW wind turbine).*	Upon completion in 2008, 90% of the electricity was renewable (80,000 kWh per year supplied by solar PV).*
<b>Avoided CO<sub>2</sub> emissions</b>	115,200 pounds of CO <sub>2</sub> avoided annually	93,300 pounds of CO <sub>2</sub> avoided annually
<b>Wood pellet storage</b>	Silo holds 35 tons of pellets for 1 year of heating	Silo holds 20 tons of pellets for 1 year of heating
<b>Solar photovoltaic system</b>	128.5 kilowatts of solar PV (45.5 kW of roof/building-mounted; 50 kW of ground-mounted; 33 kW of trackers)	70.6 kilowatts of solar PV (34.6 kW of roof/building-mounted; 28.8 kW of trackers; 7.2 kW on bike shelter)
<b>Solar hot water system</b>	6 solar hot water collectors and 240 gallon storage provide 70% of domestic hot water needs	3 solar hot water collectors and 119-gallon storage provide up to 70% of domestic hot water needs
<b>Radiant heating and cooling</b>	10 miles of radiant piping for heating and cooling (8 miles in building floor; 2 miles in pond)	4 miles of radiant piping for heating and cooling in building floor
<b>Water usage and savings</b>	Kitchen and bathroom water usage reduced by more than 30%, saving more than 60,000 gallons per year	Kitchen and bathroom water usage reduced by more than 33%, saving more than 40,000 gallons per year

\*With the addition of 50 kW of on-site fixed solar at the end of 2016, RNRG plans to be net zero on an annual basis.