

Greenville Lake House






Greenville, IL



When Kyle and Valerie started planning their dream home, they were no strangers to the capabilities of geothermal (and solar). Kyle commented, ***"It was never a question. We wanted geothermal, because that's what I do for a living. And we certainly believe in geothermal, and all the benefits it gives us."*** As GeoComfort's Solar Sales Manager, Kyle was excited to practice what he preaches at work, the four steps to energy independence: invest in proper insulation, limit energy use by heating, cooling, and generating hot water with geothermal, create power with solar, and the last step, store excess power with batteries.

PROJECT DETAILS

Size of Home:	2,400 sq. ft
Loop Type:	Horizontal Loop
Geothermal Equipment:	Guide WV and Element ZS/ZT
Installation Features:	The house is kept air-tight with spray foam cellulose insulation on all exterior walls and on the roof deck, as well as foam board insulation on basement slab and walls. One compact geothermal system provides forced air heating, radiant heat, and 100% of the domestic hot water needs, with another compact system providing forced air cooling, offering ample space in the mechanical room for storage. For an even higher level of comfort and efficiency, the house is set up with 4 forced air zones and 5 hydronic radiant zones, allowing for flexibility in temperature throughout. A 10 kW DC solar PV array helps power the home's utility needs. For additional whole home savings, this family has also incorporated LED lights, ENERGY STAR GE appliances, and an energy efficient electric washer/dryer from Speed Queen.
Contractor / Installer:	R and H Heating, Cooling, and Plumbing Website Facebook
Savings:	Estimated annual costs: heating: \$479. cooling: \$301, hot water: \$159 Total/year: \$939 For comparison, estimated annual costs for conventional HVAC would be: Total/year: \$2,516

-  CONSTRUCTION TYPE
New Construction
-  APPLICATION TYPE
Forced Air System
-  **Radiant System**
-  **Domestic Hot Water**
-  LOOP TYPE
Horizontal Loop

