



**COMMERCIAL CASE STUDY**  
 COOPER'S CAVE ALE CO.  
 GLENS FALLS, NY



## BREWERY AND RESTAURANT GOES SOLAR, BREWS SAVINGS

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*Solar hot water makes both brewing and dish washing much more cost-effective and eco-friendly.*

***"It all works flawlessly."***

For Coopers Cave Ale Co., hot water is doubly essential. The Glens Falls operation offers as many as a dozen beers and ales at a time, brews up to 20 in a year, and includes a restaurant that seats up to 120. Brewing requires 80,000 gallons of water annually at 150 degrees for cleaning boiling pots, fermenters, racking equipment and the bottling system. The restaurant consumes 200,000 gallons annually at the same temperature, in part because its dishwasher runs 11 hours a day.

### Capacity and temperature

Coopers Cave often ran out of hot water until owner Adrian Bethel installed a solar hot water system that provides water in sufficient quantity, and at high-enough temperatures, with affordable production costs.

Ten solar collectors share space with the roof garden, feeding a 325-gallon holding tank downstairs. Inside the tank, a solar-heated mixture of water and glycol flows through the coils of a heat exchanger, continuously heating water in a separate coil. Water enters the building through two pipes under the sidewalk at 50 degrees year-round, and the solar hot water system preheats the water before it enters an electric water heater that slightly boosts the temperature for use.

**THINK YOU'RE READY TO GET INTO HOT WATER?**

To learn more call 1-866-NYSERDA or visit [solarhotwater.nysersda.ny.gov](http://solarhotwater.nysersda.ny.gov)



Ten solar panels heat the water stored in the system's 325-gallon holding tank.

## Results

“It all works flawlessly,” says Bethel, citing a smooth installation and monthly savings of \$100 to \$200 as a result of offsetting electricity usage from the grid. His motivation was simple: “To reduce my energy bills, to help my business and to reduce our carbon footprint on behalf of my kids.”

The New York State Energy Research and Development Authority (NYSERDA)'s Solar Thermal Program provided \$25,000 in funding, which covered more than 50% of the equipment and installation costs. Federal tax credits also helped make the project affordable.\*

Bethel eagerly tells brewing colleagues about solar hot water. “I say, if they don't do it, it's foolish.”

For more information, visit  
[nyserdera.ny.gov/solar-hot-water](https://nyserdera.ny.gov/solar-hot-water)

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NYSERDA support is currently only available for customers that heat their hot water with electricity.  
\*Always consult with your qualified tax professional to determine your eligibility for tax credits.