

Upland Brewery adding solar power to its beers

Water-heating system being installed on local brewery's roof

By Rod Spaw
331-4338 | rspaw@heraldt.com
3/19/2009

Upland Brewing Co. is about to put a little bit of the sun into everything it makes.

The Bloomington beermaker is installing a solar water-heating system to provide hot water for its brewing operation.

Caleb Staton, Upland's head brewer, said the craft brewery will use solar energy as a supplemental heat source to natural gas.

Solar panels on Upland's roof will collect energy to heat water stored in eight 120-gallon storage vessels. Staton said the solar-heated water will be used primarily to prepare grains for brewing, a process brewers call "mashing."

The solar system also will heat water for the adjacent brewpub's kitchen and restrooms, according to Dave Mann of Mann Plumbing, which is doing the installation. Brewery officials said the solar collectors could eliminate up to 75 percent of the natural gas now used to heat water and save the company more than \$5,300 a year in energy costs.

According to an Upland news release, the brewery will be the first in the Midwest to utilize solar power for brewing. The roughly \$64,000 installation was supported with a \$22,000 grant from the Indiana Department of Energy. Staton said the project also qualifies for a 30 percent federal tax credit for alternative energy systems. He said the brewery estimates it can recoup its investment within five years through the natural gas savings.

"The more we brew, obviously, the more we will be supplementing our natural gas use," he said.

Staton said the project continues Upland's commitment to sustainability efforts in Bloomington. In 2007, for example, the brewery installed a hot water reclamation system that saves 150,000 gallons of water a year.

Mann Plumbing came to Upland with the solar idea, and found a customer that didn't need a lot of arm-twisting.

"A local business approaching us about a sustainability project — that's really a no-brainer," Staton said of the solar project.

Here's how it works: A series of glass tubes mounted in panels on the roof heat a copper pipe filled with food-grade glycol. The glycol-filled pipe runs to a heat exchanger, which draws off the thermal energy and transfers it to a separate pipe carrying the water to be heated.

Amie McCarty of Mann Plumbing said each panel represents a carbon savings of about 2 tons per year, compared with fossil fuels, which is equivalent to taking one automobile off the road. The Upland installation will have 10 panels. The Upland news release estimates the system will provide 167 million BTUs of energy each year.

Crews have begun preparing the Upland roof for the system, which is expected to be operational by April 11. The solar installation can be expanded to accommodate future production growth at the brewery, which Staton said produced more than 5,000 barrels of beer in 2008.

Upland 'Solar Day' set

Upland Brewing Co. will be opening its doors to the public on April 11 to show off its new solar water heating system.

Tours of the facility will start at 2 p.m. on Upland's "Solar Day," and there will be educational presentations on solar energy. Musical entertainment will start at 5 p.m. at Upland, 350 W. 11th St.

The Bloomington brewery also will use the occasion to launch a renamed version of a longtime product — Helios Pale Ale. The brew is identical to what customers know as Upland Pale Ale, according to Scott Johnson, the brewery's marketing operations manager. The brew is being renamed for the Greek god of the sun in honor of the brewery's solar initiative. Johnson said packaging for the beer also will be revamped to reflect the new identity.

There's more brew news from Upland. Go to the Indiana Brew Web site at <http://indianabrew.com> to see what else the Bloomington brewery has cooked up for beer lovers. And read the What's On Tap blog to get a personal perspective on the brewer's art.

Upland's head brewer, Caleb Staton, inspects a shipment of solar collectors that the Bloomington brewery will be installing on its roof. Courtesy photo

