

REIDHEAD PLUMBING & SOLAR HAS THE RIGHT RECIPE FOR PHOENIX

In a part of the country where sunlight, lots of it, can be a main ingredient, it's important for those in the business of building solar thermal systems to have a proven, effective formula.

Derek Reidhead, president of Reidhead Plumbing & Solar in Phoenix, knows a thing or two about what goes into a successful solar recipe . . .

- Main ingredient: shake-in a whole lotta' sunshine: (Phoenix: check)
- Have on hand a platoon or two of experienced, professional installers: check
- Now: briskly blend-in consumer demand. Plenty of this in one of the most green-conscious states in the Union: check
- Federal incentives, too? Yes — in the 1980s, the federal government came out with a tax credit for homeowners adding solar thermal systems: check

- Utility company rebates? That's right — for customers undergoing solar thermal installs, they're available too: check
- Pour in more market awareness. In the state of Arizona, incentives to do solar thermal have a huge impact on the market. With an overabundance of sunshine and the aforementioned benefits, the popularity for solar thermal simply exploded: check
- To ensure the best results and to build a business through referrals, use of top-drawer equipment is critical. (Integrated Solar products, Taco, Watts and Bradford White technology: check)

“With roughly \$1,500 in rebates from utilities, \$2,000 to \$3,000 from federal tax incentives, and \$1,000 from state tax incentives, it's easy to see how solar thermal is the way to

go in Arizona,” explains Reidhead. “In our state, solar thermal domestic water heating systems get a big boost through the variety of incentives offered here. Plus, many people in this area are conscious of the need to do their part to assure a cleaner, greener environment.”

Since their introduction in 2008, utility rebates have gradually slid into a lesser role — having begun at \$3/watt and are now down to 45¢/watt for PV installations, and from 75¢/kWh to 45¢/kWh for solar water heating.

“Although the utility incentives are gradually decreasing, the federal and state tax incentives should remain for some time,” says Reidhead. “These incentives are expected to be in effect until 2016. Also, because the vast majority of people in our area are into the ‘green’ movement, it's a good line of work to be in.”

In the process of getting the rack with pre-mounted collectors onto the roof.



Derek Reidhead, owner, checking the temperature setting on the Integrated Solar controller. The solar control is mounted above the drain-back tank. The Taco 006 pump circulates water from the storage tank through the heat exchanger and back to the storage tank. In the background is the 80-gallon Bradford White solar storage tank.



In the past, Reidhead was subcontracting for several larger firms. He felt an entrepreneurial tug in 2007 and opened his business independently, though he still runs several crews for some of the larger firms.

“It’s a win-win situation because I’m still valued for the expertise in solar technology and installation techniques I’ve learned over the years, and, when prospective jobs come directly to me, I simply work them in under the Reidhead banner as scheduling permits,” he says.

“I’ve been involved in plumbing and solar thermal work for 19 years,” he continues. “It’s been a great niche; I’ll continue to mine it here in the Phoenix area as long as I can.”

Each year since his initial dive into independent business, Reidhead’s solar thermal jobs have accounted for 95% of his firm’s residential and light commercial work.

REVEALING THE RECIPE

Reidhead’s project management is prized by several of the area’s largest installation firms. He adds about

25,000 to 30,000 miles to his trucks’ odometers each year, and the work has taken him to several hundred installations.

A typical week? Most jobs are within 30 miles, although he says the entire Phoenix Metro area (with a population moving quickly toward 5 million), Tucson (almost two hours away) and parts of Maricopa and Pinal counties are considered “home.”

“We average about 15 to 20 jobs a week,” adds Reidhead.

Recently, Reidhead technicians Ryan Hensley and Hunter Molina started the morning in the Phoenix suburb of Chandler with a “pipe-over” job: what Reidhead calls re-piped domestic water retrofits — typically tied to solar thermal panels, a pre-heat indirect tank and a new electric water heater. He estimates that 30% of their residential work fits into the pipe-over category.

In Chandler, Hensley and Molina installed three 2x8-ft., unglazed flat panels on the home’s front-facing concrete tile roof. The job also called for two 50-gal. Bradford White water

heaters with a heat exchanger and a circulation module off to the side.

“Bradford White water heaters are built to last, solid and reliable, and perform just as expected,” he says. “They’re readily available in many different sizes and configurations.



Flex conduit surrounds the wires from the control to the Taco 009 pump.

This comes assembled as a part of the drain-back module.

Their solar line is broad. It helps that we've got a long-standing relationship with our Bradford White distributor, [Gilbert, AZ-based] Farnsworth Wholesale."

TECHNOLOGY TAKES A BEATING

Later that day, Reidhead traveled to another subdivision in Mesa, about 10 miles from where the day began. Several days earlier, his crews had installed a solar thermal system for the new home.

At this job, an 80-gal. Bradford White Solar Saver water heater was installed with an Integrated Solar drain-back tank/pump station with Taco pumps. With pre-installed pumps and fully automatic controls, the Integrated Solar drainback tank is a key ingredient in Reidhead's secret solar recipe.

"For this job we used drain-back to prevent overheating," says Reidhead. "It's the most reliable way to avoid problems."

Reidhead's proven recipe for trouble-free solar thermal installations often includes a Taco 009 circulator that moves water from the drain-back tank through the solar collector and a 006 circulator that circulates potable water through the heat exchanger and back to the solar storage tank.

"I haven't encountered a problem with any Taco product," he says. "I've never had to change out a Taco pump. They've got some of the most reliable products we've used, and we install a lot of them. With the amount and intensity of sun we get out here, coupled with a very demanding clientele — all insisting on green technology — there's very little room for error in this market."

After checking the mechanical installation in a corner of the garage, Reidhead took a ladder to the roof where his technicians had installed a large, glazed flat panel on a reverse angle to the roofline to maximize southern exposure.

"The owner didn't want to see this one from the road. Now only the neighbor enjoys a view of it," he quipped.

Running lines to and from the collector.



THE SUN SHINES ON HIGH PROFILE JOBS, TOO

One of the most memorable jobs included a solar water heater pipe-over retrofit at the former home of retired NBA star Charles Barkley.

Although it's nice to get a high-profile job, Reidhead is reluctant to position his firm toward favoring the homes of those who're rich and famous.

"We've done work in everything from multi-million dollar mansions to small, single family, first-time-buyer type homes," he says. "Somehow, there's greater valor in work — especially with renewable energy technology — when we can respond to all types and varieties of need."

Depending on the market, Reidhead employs between five and 10 installers, some full-time, some part-time. In addition to their solar expertise, the company does a little electrical work on the homes they do installations for, and all types of plumbing work.

"We still do a fair amount of new home installations, though retrofit work has been our focus for the past couple of years," he states. "We do a lot of gas and electric water heater installations. We install a lot of hot water recirculation pumps, whole bathrooms and kitchens, to simple fixture replacement. The variety always makes it interesting." ♻️

Installing the rack and collectors.

