



# Is Solar Right for You?

With summer's temperatures causing electric bills to rise, many homeowners are asking this question, and the answer isn't the same for everyone

BY GENE MENEZ

**A**s part of a whole-home renovation to their 2,400-square-foot house in Balcones Village, Jay and Jacque Forrest decided to add solar panels. They installed a 9-kilowatt (kW) system to their 1970s ranch, and since moving in, in January 2015, their electric bills have been next to nothing. Jay says that through April 15 their bill for 2016 has been \$102 total. "A lot of our neighbors are paying \$300 to \$400 a month," he says. While much of the savings can be attributed to the other renovations, Jay estimates the family's electric bill would be four times more expensive without solar.

Solar was right for the Forrests, but is it right for you? Local experts provide five factors to consider before answering that question.

## HOME DESIGN

Experts agree that issues with an energy-inefficient home should be corrected before investing in solar. "These include making sure your home is not drafty or leaking air and humidity, your duct system is not leaking and excess solar radiation isn't coming in through the windows and the roof," says architect Peter Pfeiffer, who's on the board of the Texas Solar Energy Society. "Dealing with the infiltration of air and humidity has a better payback and aids in enhancing creature comforts."

In addition, installing solar in an under-construction home is much cheaper than retrofitting an existing home because the latter's current electrical system and infrastructure often are inadequate, experts agree.

## EXPOSURE

The roof of the home should have a south or west exposure to maximize the benefits of solar. Panels cannot face north, according to Austin Energy, which reserves the right to deny an incentive if a system is poorly placed.

In addition, the system must receive at least six hours of unshaded sunlight daily. "You'll notice there isn't a lot of solar in Tarrytown or Hyde Park," says David Dixon, business development manager for net-zero energy home builder NATIVE and a member of the board of directors for Solar Austin. "That's because you can't do it. There are way too many trees there."

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THINKSTOCK



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## ROOF CONDITION

Austin Energy recommends that a roof have at least 10 years of life remaining in it before the addition of solar panels. "If you have three years left on your roof or if you have a bunch of hail damage and that roof has to come off in a couple years, you should really think about getting a new roof first," Dixon says. "You want to have a roof that has some life left in it so you don't have to take it down in two years and have to put it back up."

## REBATES AVAILABLE

According to Austin Energy, a homeowner should expect to pay between \$2,250 and \$4,500 per kilowatt (kW) for a solar installation. But those figures are *before* incentives. An \$.80-per-watt rebate from Austin Energy helps offset that cost, but that figure is down from the \$5 offered when the rebate program started in 2004. As rebates keep dropping and costs for solar equipment stays level,



The installation of solar panels makes much more financial sense today than it did just 10 years ago because of the diminishing cost of the equipment.

there is less incentive for a homeowner to consider solar.

Customers also may qualify for a 30 percent federal tax credit on their out-of-pocket costs for the installation.

## FINANCES

So how much does it cost to install a solar system? For a 6 kW system (the average size for a home is between 6 and 8 kW, according to Dixon) at a ballpark cost of \$3.40 per watt, the pre-rebate "cost" is \$20,400. The \$.80 Austin Energy rebate knocks off \$4,800 (6,000 watts multiplied by \$.80), and the 30 percent federal tax credit reduces another \$4,680. The final up-front cost to the homeowner would be \$10,920.

"In general we find many homeowners will explore a solar system, but hesitate once initial cost and payback period are discussed," says architect Michael Hsu.

Adds Branson Fustes of Pilgrim Building Company, "Solar is a hard sell when

you're looking at project costs that are already rising in this market."

To help ease the burden of up-front costs, there are now firms, such as Velocity Credit Union, that are offering 20-year loans.

"If I can take a solar project and roll it into a 20-year loan, what I pay for that loan payment is less than what I'm saving a month," Dixon says. "Why wouldn't you do that?"

## CONCLUSION

While experts agree that a system can benefit anyone, there are homeowners who'd benefit the most: high energy users who plan to stay in their homes 10 years and want to show their environmental and sustainability commitment.

"If the initial costs can be budgeted into a complete project and the owners intend to hold the property long enough to overcome the initial payback period, they can realize significant long-term savings," Hsu says.

Adds Dixon, "We're now at a point where this works." ■

## KEEPING COOL

The HGTV Smart Home for 2015, which was awarded (along with a Mercedes Benz and \$100,000) to one lucky winner last year, will be one of 10 homes featured on the 2016 Austin Cool House Tour on June 12.

Each of the homes on the tour is green building rated and features energy-efficient and environmentally friendly design, construction

and landscaping. Some of the city's pioneers in green building, including Barley|Pfeiffer Architecture, will have projects on the tour.

But maybe no home will draw as much attention as the HGTV Smart Home (left). The modern farmhouse in Zilker can be run entirely by tablet. The homeowner can also use a smartphone and keypads on the wall to control the

shades, lighting, heating and air-conditioning, among other systems.

Other smart features include a Nest thermostat system, solar-power Velux skylights that close automatically when it rains and a high-tech camera security system with infrared night vision.

Tickets are \$20 and are available at TreeHouse, Zinger Hardware or online at coolhousetour.com

