

Charlotte

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# HOME

DESIGN & DECOR<sup>®</sup>

*Let There  
Be Light!*

Lighting Roundup

Solar City

Sleek & sustainable energy solutions for your home

Designer Charlotte Lucas shakes things up

# THE ECO POWERHOUSE

Take advantage of solar power with these innovative energy solutions for your home.

By Aleigh Acerni

**W**hether you want to reduce your carbon footprint or lower your utility costs for years to come, solar power is the go-to renewable energy source. The technology has come a long way from its inception in the 1830s when French physicist Alexandre Edmond Becquerel demonstrated that solar cells could convert sunlight into electricity—the photovoltaic

effect. Decades later, in 1883, American inventor Charles Fritts built the world's first rooftop solar array, and Albert Einstein's 1905 paper explaining the photoelectric effect won him the Nobel Prize in 1921.

Today's solar solutions are sleeker and more efficient than their unwieldy (and unsightly) predecessors—and more affordable, even qualifying for a thirty percent federal tax credit. Even better, sunny North Carolina is a great place to harness those rays to power your home. Here are three options to consider.



## SUBTLE AND SLEEK: SOLAR TILES

Elon Musk's eco-driven company, Tesla, may be best known for its electric cars, but it also offers solar panels, solar power storage, and solar roof tiles. The innovative solar roof tiles are stylish, generating power without compromising a home's aesthetic. Offered in four designs—textured, smooth, Tuscan,

and slate—Tesla claims the tempered glass tiles are three times stronger than standard tiles, but they are half the weight and won't degrade over time like asphalt or concrete. (They put their money behind this claim, including “a warranty for the lifetime of a home, or infinity, whichever comes first.”)



**POWERFUL AND EFFECTIVE:  
SOLAR PANELS**

“When a homeowner chooses to go solar, they’re opting to drastically lower energy bills, taking charge of their energy source, and defying future increases in utility rates,” Hannah Wiegard says, who is the director of marketing and communications for Renu Energy Solutions. While each installation of solar photovoltaic panels is customized to a home’s location and conditions, installations start at about \$14,000, or about \$50 per square foot of roof space used, Wiegard says. “The right solar energy size for you depends on your utility bills and what you really want to accomplish going through solar.” The energy produced by a home’s solar panels first goes directly for that home’s use, but excess energy is sent into the grid, often leveling out the costs of the energy consumed by the house at night, leaving homeowners with a \$0 energy bill.

**MINIMAL COMMITMENT:  
SOLAR-POWERED ATTIC FAN**

With a much lower cost than solar panels or tiles, a solar-powered attic fan like the Solar Star RM 2400 attic fan from Sunlit Homes and Ventilations is an easy, low-commitment investment to kick-start your solar power efforts. With installation, the fan costs \$849 (a DIY kit costs \$649). For less than \$1,000 and about an hour of installation time, homeowners get an attic fan that vents heat and moisture from the attic, prolonging the life of a roof and helping to lower their energy bills—it costs nothing to operate.

