

Elon Musk has something else he wants everyone to buy: solar roofs

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Elon Musk’s efforts to reinvent solar power haven’t drawn as much acclaim as the tech mogul’s work on electric vehicles or Mars exploration. But that could change if his latest product works as advertised. Musk has unveiled a concept for a solar roof — and yes, that’s “solar roof,” as opposed to a roof with solar panels on top of it.

Instead of placing individual panels on a pre-installed conventional roof, customers will be able to choose from different kinds of [solar tiles](#) designed to look like conventional roofing tiles. Customers can choose how much of their available square footage will be PV tiles, and how much will just be tiles, although why anyone would pay to have these things installed without the PV capability is a question for the ages.

“The key is to make solar look good,” said Musk during the product introduction. “We want you to call your neighbors over and say, ‘Check out this sweet roof.’” It certainly makes sense, then, that he did the unveil on Wisteria Lane: the backlot set of ABC’s *Desperate Housewives*, which is also where *Leave it to Beaver* was filmed. Remember that this is the guy who stipulated in his contract with Orbital Outfitters that their next-gen space suits for SpaceX had to look “badass.” Beauty may or may not be skin deep in LA, but it sure does have to have curb appeal for your HOA to even consider tolerating it.

"Slate" style of solar tile. Solar roofs could provide the energy source powering Musk's idea of a solar home. Image: Tesla



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Musk doesn’t intend to settle for curb appeal: “We want it to look better, last longer, provide better insulation, and cost less” than a regular slate or shingled roof with PV panels. In typically stylish but handwavey Elon Musk fashion, he did not provide any information about longevity, R-value, wiring, or cost.

He did wave around an actual tile, though, so that everyone could see the way light plays off the surface at different angles. When installed on the houses of Wisteria Lane, the tiles don’t look like solar tiles from the street, which is accomplished by texturing the glass. This doesn’t have to have deleterious consequences for the panels. In fact, the texturing can be better for traction, which we know because of the [solar bike path installed a couple years ago](#) in the soggy Netherlands. Good news for roofers and solar panel techs alike.

In addition to the texturing, the tiles also use a cosmetic “color louver,” which is meant to help with the optical properties of the tiles during their camouflage routine. While it does filter out some incoming light, Musk assured attendees that the tiles get fully enough to do their work.

That work would be aided by the concurrently available and no doubt bundle-ready Powerwall 2, which Musk also introduced. Here he did give some numbers. He’s quoting \$5,500 for 14 kWh of storage, which (according to Tesla’s metrics) will power a four-bedroom home for an entire day. In theory, connected to a solar roof with enough square footage, it could power the home indefinitely.



The Powerwall 2. Courtesy of Tesla

The Wisteria Lane installation was a custom deal, done with the actual tiles on actual buildings that are outside to be rained on and covered with pollen and bird poop. At the demo they weren't up and running, which was excused as having been because they only had two weeks to get the roofs put on. Maybe I'm cynical, but I'm pretty sure they passed up an opportunity to have a multimeter hooked up to the roofs. Then again, that would've meant we could calculate the panels' exact efficiency as installed on a roof [Tesla](#) and SolarCity didn't team up to purpose-build to the theoretically optimal parameters.

There's still a great deal we don't know about the project, including how efficient the panels are, how easy it is to work on the installed roof, or how much it will cost. Tesla intends to closely integrate its own business with that of SolarCity. It has already made an offer on the company and expects to close its deal in Q4 2016. Earlier this month, Tesla announced it would work with Panasonic to manufacture new panels and modules at the [SolarCity](#) factory in Buffalo, NY.

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