



New York Times file photo

Workers from SolarCity, now owned by Tesla, install solar panels on a home in Camarillo, Calif. Tesla says that it is on track to start making solar roofing tiles on a pilot basis by the end of June at its facility in Fremont, Calif., before production begins at the RiverBend factory in South Buffalo.

RiverBend awaits pilot program in California

TESLA • from C1

roof, that also can be paired with the battery storage systems that the electric vehicle manufacturer produces.

Tesla said last week that it is on track to start making the solar roofing tiles on a pilot basis by the end of June at its facility in Fremont, Calif.

Once all the kinks are worked out there, Tesla said it expects to shift production "shortly thereafter" to its gigafactory in Buffalo, which will be the biggest solar panel factory in the Western Hemisphere, built with \$750 million in state subsidies through the Buffalo Billion economic-development program.

While Tesla previously has said it expected to start production in Buffalo this summer, it did not provide a more specific timetable last week for ramping up the RiverBend factory, instead tying the launch of manufacturing in Buffalo to whenever it is that the pilot production phase in California is completed.

Tesla has pledged to create 500 manufacturing jobs at the factory, along with nearly 1,000 other positions in various support, sales and adminis-

trative roles in Buffalo. Success of the solar roofing product would have a big impact on the Buffalo Niagara economy.

Tesla and its partner, Panasonic, have posted openings for more than two dozen different positions at the million-square-foot facility in Buffalo, ranging from top engineering and management jobs to maintenance technicians. While SolarCity officials did not respond Wednesday to a request to discuss their hiring plans in Buffalo, the pace of hiring is likely to be gradual as the factory ramps up its production, hitting full capacity in 2019.

Tesla co-founder and CEO Elon Musk views Tesla's solar roof as a revolutionary product that is designed to replace the clunky solar panel arrays now mounted on homeowners' roofs. Tesla's solar roof, using glass tiles that have solar cells inside, is intended to serve both as the home's roof and as a source of renewable energy.

"This will be economically a no-brainer," Musk said earlier this month at a technology conference. "We think it will look great, and it will last."

The roof comes with a 30-year warranty on the power system. The war-

ranty on the tiles is for the life of the house. "This is toughened glass," Musk said at the conference. "Well after the house has collapsed, the glass tiles will still be there."

The first solar roofs will come in Tesla's black glass smooth and textured finishes, Musk said. Tesla plans to start taking orders for its Tuscan and French Slate roofing tiles in about six months.

The first solar roofs will be installed in the United States, followed by overseas markets next year, Musk said.

The roofing product, designed to look like a conventional roof even though it has solar modules embedded inside, is a key part of Tesla's plan to differentiate itself from other solar energy installers in a tightening market by offering a premium product that is designed to appeal to homeowners who either are building a new home or planning to replace their roof.

Conventional rooftop solar energy systems, in contrast, are only available to homeowners with relatively new roofs, since the panels will last 20 years or longer, making it essential that they not be installed on shingles that are likely to need replacing during that life span. Musk has said the solar roof will

provide a new option for the estimated 5 million homeowners who replace their roof each year.

Because homeowners only rarely replace their roof, it will take time for the market for Tesla's solar roof to develop. "I think, eventually, almost all houses will have a solar roof," Musk said. "The thing is to consider the time scale here, to be probably on the order of 40 or 50 years. So on average, a roof is replaced every 20 to 25 years. But you don't start replacing all roofs immediately," Musk said. "But eventually, if you, say, were to fast-forward to, say, 15 years from now, it will be unusual to have a roof that does not have solar."

The solar roofing market, however, has been challenging. Other companies, including Dow Chemical Co., have tried to develop and sell solar roofing products, but largely have failed because of poor performance and costly installations.

Tesla, in return for \$750 million in state subsidies that built the Buffalo factory and paid for much of the equipment that will go inside it, also has pledged to help bring 1,440 other jobs to Buffalo Niagara through suppliers, vendors and service providers for the factory.