

There are two main reasons building owners replace their roof systems. One reason is age. When a roof system is beyond saving, building owners invest in replacement. The second reason is a catastrophic weather event that causes irreparable damage. In both situations, there is a need. Seldom is a roof system replaced out of desire.

But that could change with the introduction of Tesla solar roof tiles.

In September, I was invited to Tesla's secret solar roof tile testing facility to discuss the product, installation specifications, warranty, delivery, ramp up and roll out. To honor the nondisclosure agreement I signed, I cannot provide details. However, I can speak about what already has been made public and my opinions about how the product could change the roofing landscape.

THE POSSIBILITIES

One way Tesla's entry into the roofing industry could affect the market is the return on investment solar roof tiles offer. When pay-back makes sense, building owners will make the decision to replace a roof even if it's not needed.

Most solar products currently on the market come with a 20-year warranty. Doing an ROI calculation on 20 years makes sense

A NEW ERA?

BY KEN KELLY

TESLA'S SOLAR
ROOF TILES
MIGHT DISRUPT
THE ROOFING
INDUSTRY

in markets that have a high price per kilowatt hour of electricity. But what about those less expensive markets? The ROI without a government or utility subsidy simply doesn't add up.

What if Tesla and other solar roof tile manufacturers extended their 20-year warranties? If shingle manufacturers are any benchmark, limited lifetime warranties could be on the table, making the ROI on a solar roof system much more attractive. Tesla's price point for its solar tiles is targeted around the price of an asphalt shingle roof with a solar photovoltaic system applied. That's attainable, especially with financing and lease-back options.

There's also a big piece of this puzzle Tesla is solving that others have not. Whereas other solar products on the market require a roof or base to be installed first, Tesla's system does not require that step. This makes its offering much more competitive and ensures the entire roof system installation qualifies for the federal 30% tax credit. Furthermore, Tesla's solar tiles are smaller than typical PV panels. They can fill in small areas throughout a roof and create a larger solar array than panel systems. The larger the array, the higher the energy production and the faster the ROI.

Tesla's solar tiles are made of tinted, textured glass and fit together in a seamless fashion without distraction. Aesthetics alone could be a reason for building owners to install Tesla's solar tiles before their roofs typically require replacement. Whether it's conspicuous consumption or just wanting to be the first on the block to have the latest status symbol, there will be buyers lined up asking Tesla, and hopefully roofing contractors, to take their money.

ROLL OUT

Elon Musk, Tesla's CEO, has stated the company is using automation to ramp up production at its Buffalo, N.Y., plant and plans to produce solar tiles for 1,000 roofs per week. To bring the goal into perspective, that's like 3 million concrete roof tiles, or 96,000 bundles of asphalt shingles, per week.

If Tesla reaches that goal and people buy the product, traditional utilities will need a new business model. Theoretically, homeowners could become their own utility producers. Coal, natural gas and oil consumption

could vastly be reduced in just a few years. That's when a real environmental change could occur.

Currently, Tesla has its own installation teams and group of subcontractors who already are working on projects. In my opinion, Tesla will need a network of partners, authorized roof system installers and authorized PV electricians to meet demand. Musk learned a valuable lesson when he committed to 100,000 Tesla cars produced in one quarter. The limitation wasn't in the factory; it was in the delivery.

I believe there will be a call to quickly certify hundreds of roofing contracting companies throughout the U.S. to respond to demand. Those contractors with tile and metal experience will already have an advantage because the installation details likely will be similar.

OPPORTUNITY

For an industry already experiencing an acute worker shortage, this could put even more strain on our industry's ability to respond. However, this also could be a tremendous opportunity. Tesla is a startup technology company, not a roofing manufacturer. Tesla products could make it "cool" to work in the roofing industry. Tesla's recent patent shows a floating hinged panel installation, backbone hidden electrical system and single wiring bus for multiple rows of panels. This plug-and-play design will help keep roofing contractors in the driver's seat for most of the installation. The ability to attract new talent to our industry could be the blessing we need.

My suggestion to you is to enroll workers in NRCA's ProCertification™ program now. There is a real possibility for Tesla to require contractors installing its products to have a certification program in place. Change is coming, and no one should be left behind. ☎●✎

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To read more about Tesla's new solar roof tiles, go to www.professionalroofing.net.