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Solar Skin for Moraga

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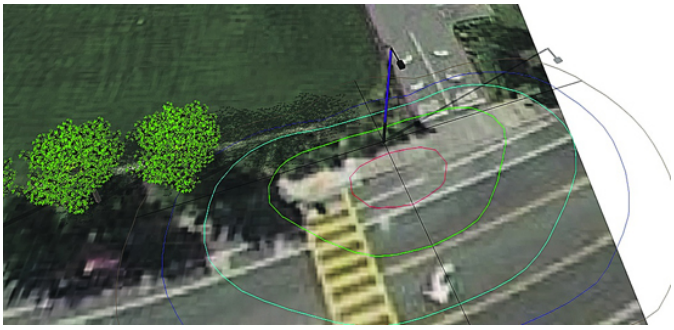

Solar lighting shading analysis at 10 a.m. on Corliss Drive Image provided Inovus Solar

Moraga may be small, but it's big on innovation. In October the Town Council approved the installation of two new off-the-grid streetlights sheathed in a 'skin' that absorbs sunlight and transforms it into electricity. The potential for savings is staggering and the two lights will be a key test. If proved efficient they could lead to more solar innovations in town.

"Technological advances are making these types of lights more reliable and cost effective," explained Moraga Town Engineer and Public Works Director Edric Kwan. "LED streetlights require much less power, so it is easier to get them fed through solar cells."

Kwan was completing improvements to the pedestrian crossings at Moraga Road and Woodford Drive, and at Moraga Road and Corliss Drive, but no new lights had been included in the project. "The cost estimate we received for two conventionally-powered streetlights was $97,639; for two solar-powered, off-grid streetlights, the cost was $28,160," said Kwan.

"The Design Series streetlights that Moraga chose are wrapped in a photovoltaic fabric," explained Inovus' Nick Kawaguchi. "It is a very performant product that uses LFP (lithium iron phosphate) batteries and a proprietary management system of the energy that lasts up to 11 days (or nights) of use, even without sun."

The reduced cost is not where the savings end. The energy bill for the lights will be null, there is no maintenance and no need for additional digging and repair for connecting the lights since they're off the grid. "Dust and deposit can affect the performance of standard solar panels," said Kwan, "but here the photovoltaic surface is vertical and self cleaning with the rains."

Kwan said he used such solar powered streetlights in Richmond several years ago, but that the new products are even more attractive. "These two crosswalks are perfect test sites," he said. "The intersections are already lit so if we have a problem, the consequences won't be dramatic."

During the Council meeting, Mayor Mike Metcalf questioned the cost of repair if a driver were to run into the posts. "It is a very sturdy product," responded Kwan, "and if we have to replace it, that can be done easily because no digging is necessary."

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