Self-cleaning Solar Panels

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Solar panel conversion efficiency is reduced by dust, grime, pollen, and other particulates that collect on the solar panel. "A dirty solar panel can reduce its power capabilities by up to 30 % percent in high dust/pollen or desert areas," Cleaning dirty panels with commercial detergents can be time-consuming, costly, hazardous to the environment, or even corrode the solar panel frame. Ideally solar panels should be cleaned every few weeks to maintain peak efficiency, which is especially hard to do for large solar-panel arrays. Cleaning can cost up to five dollars per panel that might not sound like a lot of money but if you have 52,000 panels it adds up quickly. One of the best places to put a solar panel is in the desert, where it’s sunny. But deserts are also dusty, which means the panels have to be washed frequently so the dust doesn’t stop them from capturing sunlight. To solve this problem, we are developed a self-cleaning solar panel (letting solar panels clean themselves) to maintain peak efficiency over longer periods of time. A New technology could provide a solution, to keep solar panels operating at peak capacity. The self-cleaning solar panel removes dust, dirt, and pollution from solar panel surfaces.

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