

# Israel Debuts the World's First Self-Cleaning Solar Farm

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One of the challenges with solar power is keeping the panels clean, since dust and dirt drastically reduce the efficiency of photovoltaics. That's particularly challenging for large solar parks, and especially ones that are located in the [desert](#), where there is little water. Israeli company [Eccopia](#) has addressed that challenge with a clever robot that cleans the solar panels every day, increasing efficiency by up to 35 percent. This week the Kibbutz Ketura solar park installed Eccopia's robots, making it the world's first self-cleaning photovoltaic array.

Every night while the world is sleeping, 100 robots get to work in the 20-acre park [to clean](#) up Ketura's solar panels so that they can better absorb the sun's rays. Each robot uses multiple microfiber cloths and a controlled air flow to gently clean the panels without using any water and each robot can tackle about 100 square feet of panel a minute. In the past, Ketura's solar panels were only cleaned about nine times a year because the process took up to five days and was so labor intensive.

The robots are controlled remotely and operate simultaneously, beginning and ending at the same time. Even better, they are energy-independent since they [self-charge](#) with their own solar panels.

The park itself creates about 9 kilowatt hours of electricity each year, which is currently only a fragment of Israel's needs. But earlier this year, it was announced that the country has big plans to become more energy efficient and possibly even the greenest country in the world. Part of that project will include [investing in solar](#) and the installation of nearly 50,000 square feet of solar panels.

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