

Solar panels work when light particles hit their surface with enough energy to knock electrons out of their stable bonds. These techniques have increased commercial solar panel efficiency from the low-teens to 25%, with experimental models reaching up to 47%. Anti-reflective coatings and patterns on the panels' surface create more opportunities for incoming light particles to hit electrons. But thanks to clever scientists and engineers and substantial government investment, solar panels are generating more electricity than ever. What's more, solar has gotten 89% cheaper over the last decade, thanks in part to global supply chains for other technologies that use the same materials. Solar panels can only interact with certain wavelengths of light, making it impossible to convert over half the sunlight they receive. On their journey back to stability, these electrons produce electricity.