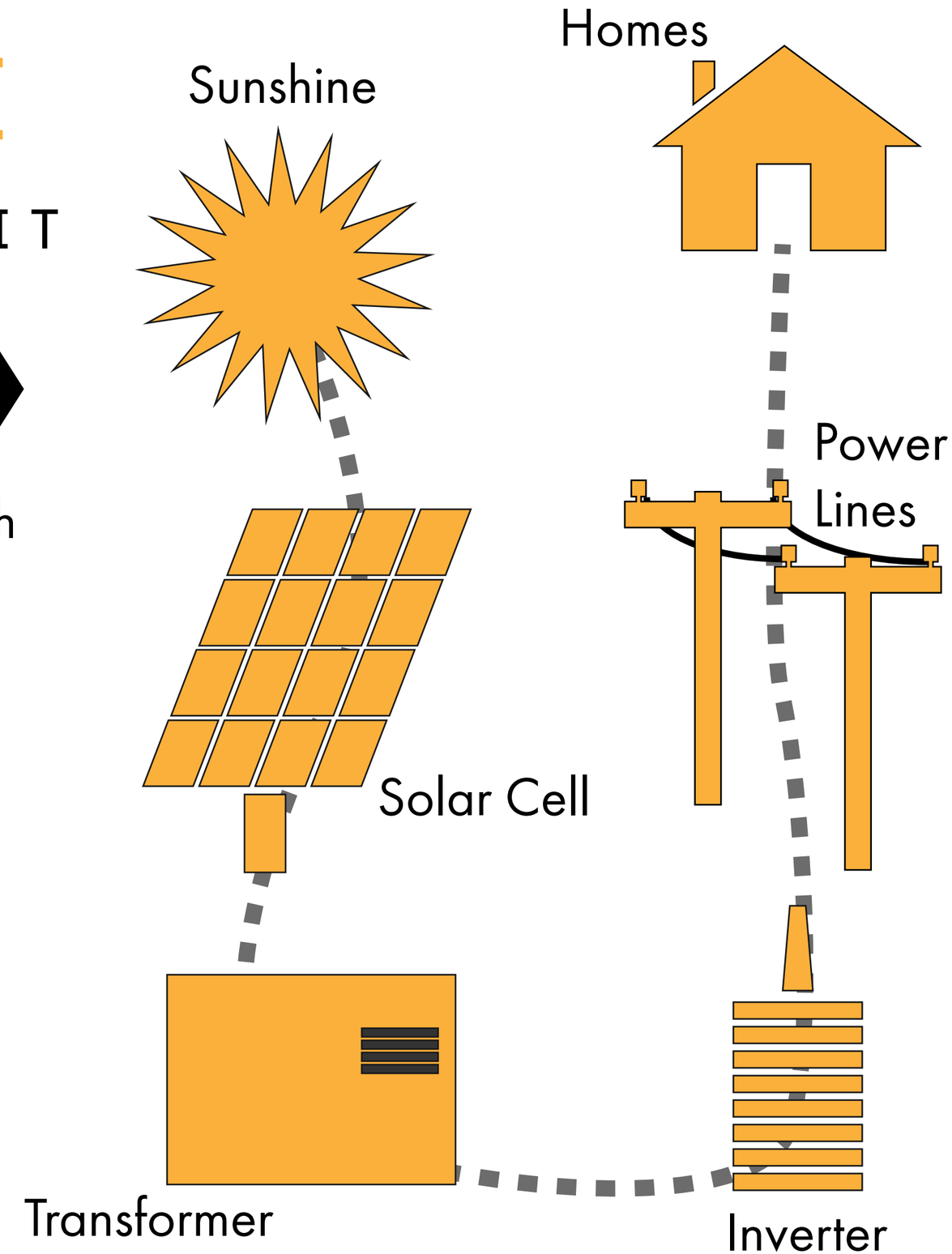
# Sun to Home

## How Solar energy makes it to your house

Imagine a ray of sunlight as a stream of tiny particles. These particles are called photons. Each time a photon hits a photovoltaic (PV) cell, it knocks an electron loose. As electrons collect, a transfomer converts them into a usable stream of energy. An inverter converts the direct current (DC) into alternating current (AC). Then the electricity is carried by power lines - a highway for electricity - into your home!

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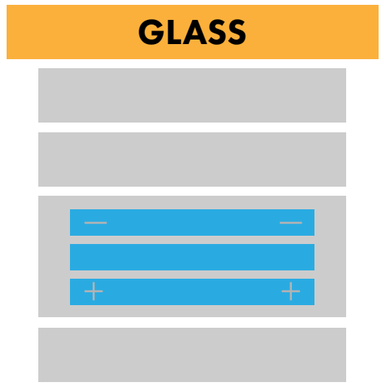
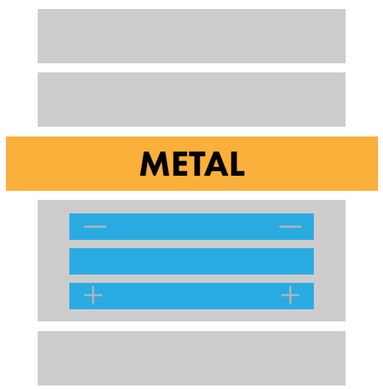
This top layer of glass protects the silicon crystals inside from wind, rain, hail and snow.

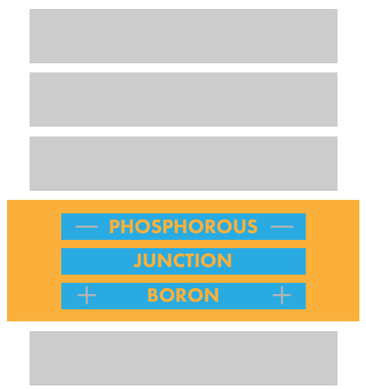



The anti-glare layer reduces reflection and ensures photons can pass through.


A thin screen of metal knocks the electrons loos and transfers them to the next layer.




The top layer of silicon is treated with phosphorus makign it electrically negative.
The middle layer is an electrically charged junction, which allows electrons to flow through an external circuit, provideing power to the attached electrical system.
Boron is added to the back layer making it electrically positive.




The circuit is complete when electrons return to this bottom layer and find “resting spots” in the electron poor bottom layer, and wait for the next photon to shake them loose.