
Solar Projects Frequently Asked Questions

November 2023

Who is AES?

The AES Corporation (AES) is a US-based, Fortune 500 global energy company with headquarters in Arlington, Virginia. Founded in 1981, we provide reliable, affordable and sustainable energy in 14 countries around the world through our diverse portfolio of energy distribution and generation businesses. As a leading renewable energy developer in the US, AES owns and operates more than 450 renewable energy projects totaling 5.1 GW of clean energy resources, and has more than 51 GW of projects under development.

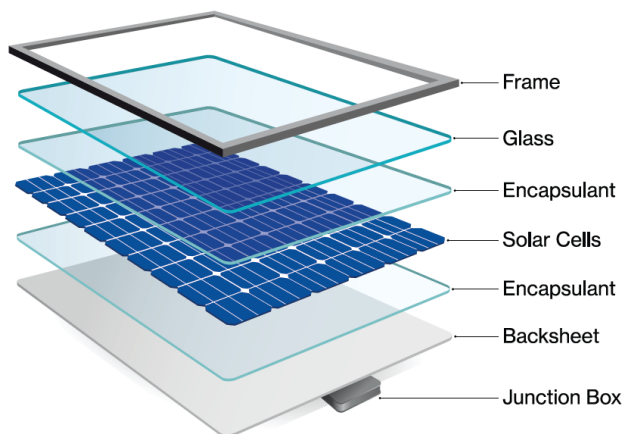
We have a diverse workforce that is committed to operational excellence and meeting the world's changing energy needs. And to address the world's growing climate challenges, we are committed to accelerating the future of energy, together with our people, our communities and our customers.

Are solar panels safe?

Yes. No peer-reviewed reports provide evidence that any adverse health concerns have been caused by solar panels or solar projects. All solar panels used by AES pass the EPA's Toxic Characteristic Leaching Procedure (TCLP) test and are classified as non-hazardous and are not regulated as toxic materials.

What are solar panels made of? Are the components a health risk?

Crystalline-silicon solar modules are largely made of glass, aluminum, copper, and silicon, along with other commonly used plastic and wires. The cells on solar modules that are used to capture sunlight are made of silicon, which is a naturally occurring element. Crystalline-silicon solar modules are made of basic, "solid state" materials, meaning there are no liquid or gaseous components. All solar panels used by AES are rigorously tested for predictable performance and pass the EPA's Toxic Characteristic Leaching Procedure (TCLP) test and are classified as non-hazardous, and not regulated as toxic materials.



Does a solar facility pose a fire risk?

Solar facilities are governed by the same building, electrical, and fire codes that govern the construction of homes and other buildings with electrical systems. The local fire and rescue departments will be thoroughly informed about the project and all access points available to them. Turn around radius will be reviewed to assure local equipment can operate. The project will be appropriately fenced and secured with access restricted only to approved personnel.

How is landscaping and vegetation managed?

The vegetation throughout the array must be properly managed to minimize any shading on the panels from tall grass. As part of our projects' operation and maintenance plans, the ground cover is managed through seasonal mowing and also often sheep grazing. Sheep grazing is a sustainable alternative to standard site maintenance and sheep are naturally suited to the job. Weed control is managed through limited spot treatments with selective herbicides.



Does your company currently use sheep for vegetation management on projects?

Yes, we currently have 35 project sites across more than 7,000 acres with active sheep grazing for vegetation management.



What type of ground cover is used and how does the project help maintain the land?

Solar projects are a beneficial method of preserving farmland. By utilizing the property for the solar farm, the soil is effectively laying fallow during the operational period of the project. In non-desert regions, high-quality ground cover is planted and maintained throughout the life of the project that helps to replenish nutrients in the soil by preventing soil compaction, increasing organic matter inputs, and by reducing pesticide use. Panel rows are typically 20 to 30 feet apart and each post is 15 to 20 feet apart which allows a significant amount of the project area to remain open.



Will the solar project increase stormwater runoff outside of the project?

No, the solar project will not increase stormwater runoff outside of the project area and will be properly managed within the project area. Rain falls on the solar panel and runs off the edge of the panel, where it falls off the drip line to infiltrate the ground below. The area beneath the panel and between the panels consists of pervious soil and well-maintained ground cover vegetation. Natural drainage features of the land will be maintained, and the project will observe setbacks from any stormwater retention areas. Additionally, we work with technical experts to conduct a hydrology study, drainage plan and a stormwater pollution prevention plan for our projects.

How long does construction typically take? Will there be noise or other disruption during construction?

The entire construction period for our projects is expected to last approximately 12-18 months – as is standard timeframe for a project over 100 MW. Construction will not begin until all permits are received, and any pre-construction work and standard site due diligence is completed. During the construction period, noise is mainly limited to the pile driving that happens early in construction. A strict noise ordinance is followed to ensure that work happens during appropriate hours. You can expect to see an increase in truck traffic during construction along designated haul routes used for the project. Traffic will return to normal once the project is operational.



Will the project create noise once operational?

Solar projects are quiet neighbors. There are only a few pieces of equipment at the site that will make any sound. These are inverters and transformers, and they are equipped with cooling fans. Acoustic studies have analyzed noise produced from utility-scale solar sites, and based on this report, noise levels approached background noise levels within 150 feet from inverter locations. All proposed inverters will be located over 150 feet from any site boundaries and neighboring parcels.

Do solar projects produce any glare or reflection?

Solar panels are intended to capture the most light possible, and specifically designed to reduce reflection and glare. Modern solar panels reduce reflection by using anti-reflection coatings (ARC) and by texturing the surface. According to the National Renewable Energy Laboratory (NREL), solar panels reflect as little as 2% of incoming sunlight and produce less glare than standard windows and water. The Federal Aviation Administration (FAA) produced a final policy report that found solar projects do not create hazardous glare for aircraft in the area.

Will projects produce any light pollution at night?

Often solar projects have standard, motion-censored security lighting. This lighting is pointed downward and away from any surrounding neighboring properties. There will be no consistent nighttime lighting.

What effect will a solar project have on property values of adjacent and nearby residences?

Studies analyzing the impact of commercial, utility-scale solar projects on neighboring property values conclude that there is no impact on surrounding property values.

Can solar arrays withstand intense storms, wind, and hail?

Solar panels are extremely durable and rigorously tested to withstand harsh weather, including strong wind and hail. AES uses panels that are often rated to withstand wind speeds of up to 105mph and golf-ball sized hail.

What is the decommissioning plan for a project's end of life? Will materials get recycled?

When a solar project reaches the end of its project life, the owner/operator is responsible for executing per the approved Decommissioning Plan, including abiding by all local and state decommissioning requirements. This includes the removal, and recycling or disposal of all solar panels, racking, equipment and other structures associated with the project, as applicable. The land surface within the project area will be sensitively restored to pre-project conditions to allow a return to agricultural use or other uses consistent with the land-use policies at the time. Through our supply chain process, we identify and prioritize equipment manufacturers that align with our environmental, safety and human rights commitments. Some of these commitments include buying equipment from manufacturers whose supply chains and suppliers comply with a national recycling program. We also seek to buy high-efficiency products, which reduces the total volume of raw materials and parts required for each project.

Do solar projects emit any electromagnetic fields ("EMFs")?

There are no studies that cite concerns of negative health impacts of EMFs from solar projects. The Federal Aviation Administration (FAA) has indicated that EMI (electromagnetic interference) from PV installations is low risk. Solar panels themselves are not capable of emitting EMI, and solar equipment like transformers and electrical cables are not sources of EMIs because of their low frequency of operation. An inverter is the only equipment capable of producing EMIs, however, they are inherently low-frequency devices and produce extremely low frequency EMI similar to household electrical appliances.