

AES Frequently Asked Questions February 2023

Who is AES?

AES is a global energy company, with a focus in the U.S., that is accelerating the future of energy. AES has been developing and delivering innovative energy solutions to its customers for over 40 years. In the U.S. alone, AES successfully operates more than 450 solar projects that are in the ground and reliably producing clean energy across 22 states. With 4.7 GW of operating clean energy projects and more than 40 GW of projects under development, AES is a market leader in clean energy development in the U.S. AES is also a diversified energy company, owning and operating two large investor-owned utilities in Indiana and Ohio, as well as other generation assets in the U.S. and worldwide.

Are solar panels safe?

Yes. No peer-reviewed reports provide evidence of any health issues caused by solar panels. 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?

Majority of the panels AES plans to use are crystalline-silicon panels. Crystalline-silicon solar modules are made mainly 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. Most solar panels used on solar projects today are bifacial, meaning they can collect sunlight from the top and reflected sunlight from the ground.



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 the many of our project's operation and maintenance plan, the ground cover is likely managed through sheep grazing and seasonal mowing. 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 and approximately 7,000 acres with sheep grazing for our solar projects.



What ground cover is used in a solar array?

In non-desert regions, grass ground cover is planted and maintained throughout the life of the project. Panel rows are typically 20 to 30 feet apart and each post is 15 to 20 feet apart which allows a significant area of the field to remain open. Additionally, at some projects we use a type of racking that allows the solar panels to track the sun throughout the day.



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

No, all-onsite stormwater will be properly managed onsite. The ground cover planted on solar farms helps absorb water into the ground. Rain falls on the solar panel and runs off the edge of the panel, where it falls to the ground below. From there this water can infiltrate the ground or move along the ground surface to the next panel. The area beneath the panel and between the panels consist of pervious soil and well-maintained vegetation. Additionally, we work with technical experts to conduct a hydrology study, drainage plan and a stormwater pollution prevention plan (SWPP) 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 18 months – this is a standard timeframe for a project of over 100 MW. Construction will only take place during appropriate work hours. Noise will be largely limited to approximately 2 months of pile driving that happens early in construction. Once operational, the solar project will be a quiet neighbor. 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 be noisy once operational?

The solar project will be a quiet neighbor. There are only a few pieces of at the site equipment that will make any sound. These are the inverters and transformers, and they are equipped with cooling fans.

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, solar panels reflect as little as 2% of incoming sunlight and produce less glare than standard windows and water.

Will projects produce any light pollution at night?

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

Will a nearby solar array impact the cost of homeowner's insurance?

A nearby solar project should have no impact on an individual homeowner's insurance.

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 utilizes panel vendors that use a thick tempered front-side glass, greatly increasing the module strength.

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 the approved Decommissioning Plan, including abiding by all local and state decommissioning requirements. This includes the removal, recycling, and 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 concerning electromagnetic fields (“EMFs”)?

PV systems do not emit any material during their operation. Electromagnetic fields (EMFs) are also referred as non-ionizing radiation, which means the radiation does not have enough energy to damage DNA. Studies prove humans are all exposed to EMFs throughout our daily lives, including wall-sockets, cell phones and computers, without negative health impact. Someone outside of the fenced perimeter of a solar facility is not exposed to a significant EMF level from the solar facility. There is no concern or negative health impact from EMFs produced in a solar farm.

Does a solar facility pose a fire risk?

Solar systems are governed by the same Building/Electrical/Fire codes that govern the construction of homes and other buildings with electrical systems in the community. The local fire and EMS organizations will be thoroughly trained on the project and available access points. Turn around radiuses will be reviewed to ensure local emergency equipment can operate within the site. Projects are fenced and secured with locks to ensure access only for approved personnel.