



elementpower

Frequently Asked Questions About Solar Energy



Element Power owned Las Pinares Solar Facility, Spain

Will I be able to run my house with the solar power generated at the site?

No. The project is designed to provide power to the grid, which requires increasing the voltage far above the voltage used inside your house.

How much money will the site generate every year for the landowner?

A solar photovoltaic (PV) project is land intensive, meaning much of the ground at the project site will be covered with solar panels (vs. a wind project, where the wind turbines are spaced widely apart), so purchasing the land for the project site is often the best option. In other situations, the landowner wants to retain their long term ownership, so we lease the land and pay rent based on the number of acres occupied by the project throughout the life of the project. Potential income to the landowner depends on the value of the site in terms of solar resource, access to the grid, local power prices and real estate market conditions.

Can the solar plant produce power when the sun is not shining?

Solar projects can only generate electricity during daylight hours. Even when there is fog or cloud cover, PV panels will generate small amounts of electricity, but at night, the system doesn't operate. However, demand for electricity is low at night because businesses are closed and people are generally asleep.

How much water will the plant need for operations and will I be able to keep my water rights?

One of the many benefits of PV technology is that it requires very little water, especially when compared to solar thermal and fossil-fueled projects. To maintain peak efficiency, it is necessary to clean the panels periodically to remove any dust that accumulates. How often this has to be done depends on the site conditions – the nearby sources of dust, amount of rain, etc. Generally, 10 acres of PV panels will require 10,000-15,000 gallons per year for panel cleaning.

How long will it take to develop the site?

There are several pacing items, largely outside our control that dictate the pace of development that are largely outside our control, such as permitting (this can range from a few months to several years), interconnection to the electrical grid (this can range from about a year to several years) and finding a buyer and negotiating a contract to sell the power (the timeline for power sales varies greatly by region).

How long will the panels last?

At a minimum, 20 years, but we expect that the panels will likely last longer.

How many houses will the site power?

Each megawatt (MW) of solar power can provide enough power for 150 to 250 houses. The exact number depends on the solar resource at the site and the type of equipment used.

What is the impact to the land?

Element Power will work to ensure that the land is being used most efficiently for solar energy. Typically, this means utilizing as much of the land as possible for the panels. Of course, environmental considerations will be taken into account when siting the facility. Additionally, there will be an approximate 2% grading to level the site, trenching of cables, piers installed and gravel roads between the rows of panels.

Can I still use my land surrounding the facility?

Yes. There are very few restrictions on the uses of the surrounding land. We typically like to have a setback from the panel itself of 2 times the height of the equipment. The main issues we are concerned with in terms of adjacent land uses are building tall structures that would cast shadows over the panels and activities that would create unusually high levels of dust that would reduce the panels' output.



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Who builds the project and what is the impact during construction to the surrounding community?

An experienced solar energy contractor will be used for the engineering, procurement and construction (EPC). Local firms may be hired for certain parts of the construction process, such as earthwork, landscaping, and perhaps some electrical tasks. A typical 10 MW facility will employ approximately 75 people temporarily. The construction process will take 6-8 months.

What does a PV system look like?



Element Power-owned Pascuales Solar Facility, Spain

Does the system make noise?

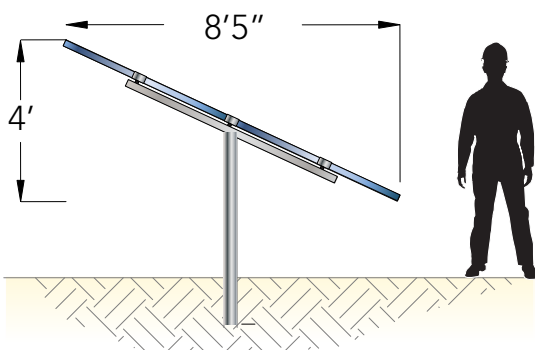
Very little. The inverters and transformers make a low humming sound equivalent to less than 50 (dB) of noise, or about the same sound level as is typical inside a house.

What is the difference between PV and other solar energy technologies?

Element Power is pursuing PV rather than other solar technologies for several key reasons, including:

- PV requires no water to operate (other than for periodic cleaning of the panels) whereas most solar thermal technologies require substantial amounts of water.
- The price of PV modules has been dropping rapidly in recent years and this trend is expected to continue.
- Permitting PV projects is more streamlined and rapid.
- Unlike solar thermal, PV projects are very scalable. In other words, they can be built in multiple phases and at almost any number of MW.

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