

ALDER CREEK SOLAR

Frequently Asked Questions



Who is Apex?

Apex Clean Energy is an independent renewable energy company based in Charlottesville, Virginia. We develop, construct, own, and operate wind and solar energy facilities across the country. Our team has completed nearly 3 GW of projects that are now operating.

Why Solar?

Over the past few years, demand for renewable energy has grown dramatically, driven in part by corporations with sustainability goals. More than 200 companies worldwide have made commitments to go 100% renewable. In addition, New York's governor recently signed a bill that calls for 6,000 megawatts of solar capacity by 2025, and it will require utilities to obtain 70% of electricity from renewable sources by 2030. Because solar energy is clean, reliable, and affordable, it has earned the spot as the fastest-growing source of electricity in the world.

Are solar panels noisy?

Solar panels themselves are completely silent; however, certain pieces of equipment on a solar farm do emit sound. Transportation and maintenance equipment—including cars, trucks, lawnmowers, and string trimmers—is a common source of noise on solar farms that most people are used to hearing elsewhere. In addition to these sources, inverters and transformers on a solar farm will generate low levels of sound. A study in 2014 conducted at a solar facility in Australia determined that direct noise from the solar facility experienced at nearby residences would reach only 30 dBA, which is around the ambient noise level at night in a rural area. This indicates that any noise from the solar inverters would be imperceptible to nearby residents.

What are the visual impacts of solar?

Because solar collection devices are usually only about 10 feet tall, and solar farms are often surrounded by trees, the visual impacts of a solar farm to the surrounding community are very minimal. At Alder Creek Solar, due to the natural vegetation and topography of the site, surrounding roadways and residences will have very limited views of the facility. We've proactively identified the areas that may experience visibility and have added an additional setback and vegetative screening to protect neighbors' views.

Will this project adversely impact the local environment?

While our first priority for solar facilities is to utilize land that has already been cleared, was previously cleared, or is scheduled to be harvested, some project components are planned for land that is currently wooded. As part of the Article 10 process, we will work collaboratively with the New York State Department of Environmental Conservation to ensure we minimize disturbance to the environment. In addition to coordinating with the State, the project will have appropriate setbacks from sensitive areas such as streams, wetlands, and floodplains.

Will this project raise my power bills?

Alder Creek Solar Solar will not raise local electricity prices. In fact, the cost of solar power has dropped by more than 70% since 2010 and is now one of the lowest-cost options for electricity generation. When comparing unsubsidized, levelized costs of energy, utility-scale solar energy is comparable in price to wind energy and natural gas combined-cycle power, and it is significantly more cost-effective than coal or nuclear power. Solar power also has the benefit of producing electricity during the times of day when demand and power costs are the highest. On a midsummer afternoon, for example, when homes and businesses are running their air conditioners at full power, a solar facility is generating at full power as well, which helps close the gap between electricity supply and electricity demand. This has the effect of lowering electricity costs across the board.

Where will the power generated from the project go?

The power from Alder Creek Solar will be delivered into the local New York electrical grid, helping to diversify New York's energy portfolio. This is the pool that supplies all New York State consumers with electricity.

What happens if the solar farm goes out of use?

There are often concerns about what happens to a solar farm once it stops producing energy or if the owner goes out of business. As part of the permitting process, Apex must provide a complete detailed decommissioning plan that is funded by an irrevocable form of financial security to cover decommissioning costs. This ensures that money is always available to remove the solar farm if or when it is no longer operable.

What happens to solar panels at the end of their life?

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Why are you choosing to site this project in a cloudy area?

The cost of solar energy has decreased significantly in the past 10 years, and it is now economically viable to generate solar electricity even in cloudier places, such as New York.

You might be surprised to learn that solar panels still produce between 10-25% of their typical output even on a cloudy day.

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How will alder creek solar generate energy in the winter? Will it be impacted by heavy snow or extreme cold?

You might be surprised to learn that sunny cold weather is actually an ideal condition for solar panels to perform optimally. On the other hand, extremely hot climates actually make solar panels less efficient.

As far as snow is concerned, a light dusting of snow has little impact on the panels and can be easily blown off by wind. Because panels are tilted at an angle, snow will also slide off of panels over time, cleaning the panel as it melts and slides off. After heavier snowfalls panels will be cleared by facility employees. Interestingly enough, because of the reflectivity, or albedo effect, of snow, having snow on the ground near the panels can contribute towards them producing more electricity, with the smooth white surface reflecting light like a mirror.

(<https://www.energy.gov/eere/articles/let-it-snow-how-solar-panels-can-thrive-winter-weather>)

If you are not hosting solar panels on your land, how will you benefit?

Alder Creek Solar will bring over 30 years of annual revenue, averaging over \$400,000 per year, split between Oneida County, the towns of Boonville and Forestport, and local school districts. The project will also bring part-time and full-time jobs to the community during the construction and operations phases.

Will anything be placed on my property without my permission?

Project components will only be sited on private properties whose owners sign a lease agreement with Alder Creek Solar. All agreements are fully voluntary between landowners and the project.

What happens to neighboring property values?

Recent research on the impact of solar farms on property values supports the conclusion that solar facilities do not decrease property values. Furthermore, there is no discernable impact on property values regardless of whether solar farms are located near residential, agricultural, or industrial properties.

Additionally, studies have found that substantial benefits are flowing to communities where solar farms are located. A report by the University of North Carolina examined the economic impact of more than 100 solar projects in over 50 countries and found that solar facilities have increased the tax revenue from agricultural property by between 1,000% and 10,000%.

Are solar panels safe?

Alder Creek Solar and most other utility-scale projects use panels with no harmful chemicals. There is one type of solar panel that may contain some harmful materials. Depending on the type of panel being used, these materials can include cadmium telluride, copper indium selenide, sulfur hexafluoride, and silicon tetrachloride. Cadmium telluride is only used in thin-film solar modules; Alder Creek will not be using this type of panel.

It is important to note that no matter the panel type, the harmful substances named above are fully contained and unreactive in the solar panels. Because they are embedded into the panels during manufacturing, there is simply no physical mechanism or chemical reaction that would allow these materials to escape the solar panels during operation.

Solar panels have not been linked to any adverse human health issues. On the contrary, they have proved beneficial to human health by displacing the air pollution caused by fossil fuel electric generation, conserving clean water, and reducing the harmful impacts of climate change.

The North Carolina Clean Energy Center at North Carolina State University conducted an exhaustive study examining the fire, safety, and public health risks of utility-scale solar energy projects, including concerns regarding toxicity, electromagnetic fields, and electric shock potential. For each of these concerns, the study concluded that "the negative health and safety impacts of utility-scale PV development were shown to be negligible, while the public health and safety benefits of installing these facilities are significant and far outweigh any negative impacts."

Can solar panels catch fire?

Evidence shows that fires caused by solar equipment are rare, and they only occur if an improper connection or other electrical fire hazard is present. In most circumstances, good system design, product selection, and installation procedures are enough to minimize the risk of fire to the greatest extent possible. These concerns are further addressed by product safety standards, National Electric Code provisions, and inspections that take place prior to solar facility energization.

Another factor that limits solar panel fires is the small portion of materials in the panels that are flammable, which prevents them from self-sustaining a significant fire. The majority of each solar panel is composed of protective glass that makes up over three quarters of the panels' weight.