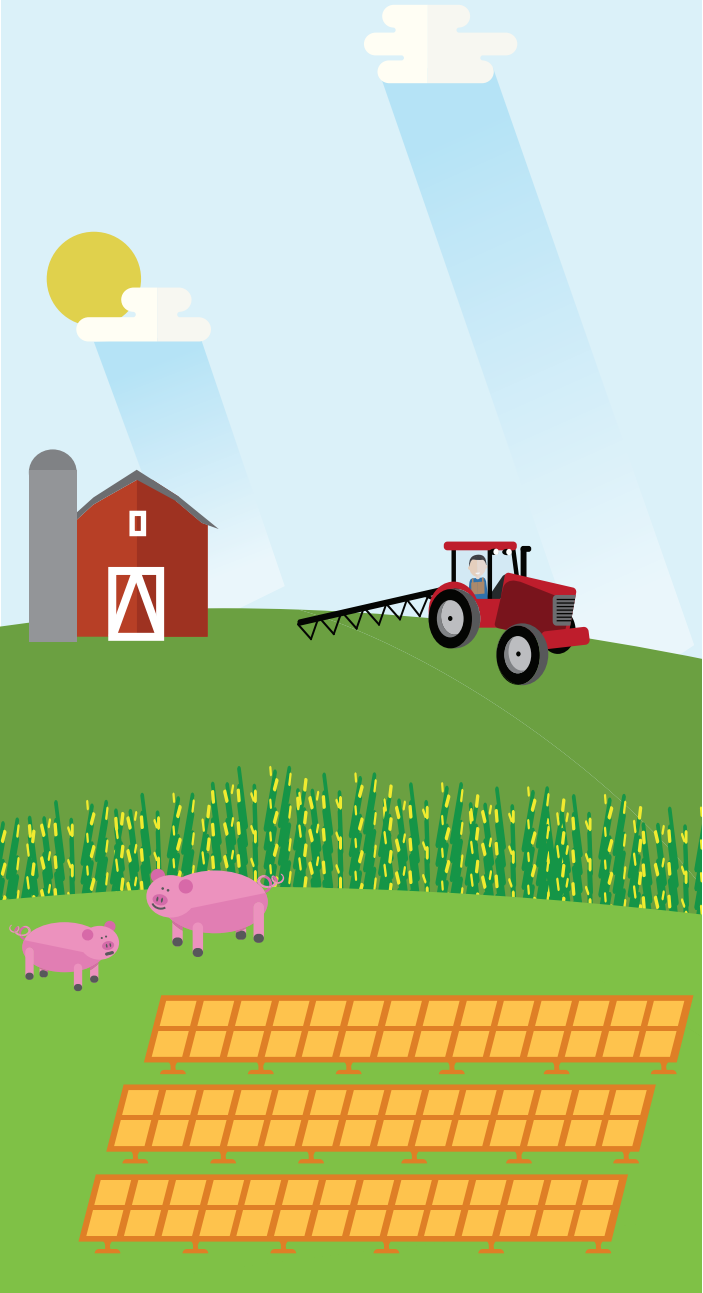
Guide to Solar in My Community



Solar Permitting Process

Some local governments already have solar ordinances in place that specify whether solar projects can be built in residential zones.

Solar ordinances may also include additional rules solar project developers must follow when building a solar project.

The information below includes best practices regarding solar permitting and zoning in North Carolina. Please refer to the NC Template Solar Ordinance for additional information: https://nccleantech.ncsu.edu.

A good solar ordinance balances the aesthetic needs of the individual community but does not infringe upon the landowner's private property rights to lease the land for a solar project. Here are some ways that local governments can ensure solar projects exist in harmony with the surrounding area:

- Parcel Line Setbacks: Locating a solar project between 15 and 50 feet away from roadways, and 100 feet from any residential structure.

  Height Limitations: Solar projects should be limited to less than 20 feet in height.

  Decommissioning Plan: Developers include this clause in contracts with landowners, but some jurisdictions request a copy for the local Register of Deeds.

  Visual Buffering Requirements: If a solar project will be sited near a public thoroughfare, some jurisdictions request that the developer plant a vegetative buffer so that the project blends in with the surrounding area.

North Carolina is the #1 solar energy producer in the Southeast!

Solar is working for you:

A solar installation can greatly increase the value of land, offering some financial security for the property owner over 20 - 25 years. Once solar panel racking systems are removed, the land can revert to its original use.[1]

Typically, an annual lease payment from a solar company ranges from $500 to $800 per acre in North Carolina.[2]

5,439 Full-time Equivalent Jobs (FTE)

Solar is working for North Carolina:

Generates low-cost renewable energy, domestically.

Homegrown solar energy reduces our dependence on coal and scarce non-renewable resources.

Of North Carolina's 4.75 million acres of cropland, solar projects occupy just 0.2%.[3]

From 2007-2015, over $2.7 Billion was invested in solar energy in NC, resulting in **$6.9 Billion in revenue.**[4]

2nd overall installed solar capacity in the country[5]

Solar Questions & Facts

Despite these many benefits, there are still misconceptions about solar projects. Here are some answers to the most common questions residents have when a solar project is proposed in their community.

Are solar projects safe for humans, wildlife, and the environment?

Unlike other energy sources, solar energy does not produce emissions that may cause negative health effects or environmental damage. There are no confirmed health issues related to solar PV at levels generally encountered by the public,[6] and there is no causal relationship between electromagnetic field exposure and cancer. Solar PV produces a lower electromagnetic field exposure than most household appliances, such as TVs and refrigerators.[7]

Will the solar project be noisy?

Solar projects are relatively quiet compared to many other land uses. Inverters that convert the direct current (DC) electricity generated by the solar panels to alternating current (AC) electricity for transmission on the electric grid generate an audible hum. The sound can be heard when standing in the immediate proximity of a solar project and is comparable to an air conditioner or similar electronic appliance.[10]

How will the construction and maintenance of a solar installation affect my community?

A solar project typically requires 15-20 weeks of construction.[12] Traffic levels and temporary noise due to machinery use should be anticipated near the site area during construction. Solar projects require minimal maintenance after installation.[13] The duration of the construction, traffic, and noise levels vary across projects depending on the scale. Talk with the developer about any concerns you may have about increased traffic.

Once farmland is used for solar can it go back to farming after the lease ends?

Many people believe that once farmland is used for solar installations, it can no longer be used for farming and claim that efforts required to maintain the solar infrastructure can have lasting impacts on future farming potential. Evidence, however, suggests that the long-term effects of solar panels on farmland are minor and manageable, especially because decommissioning plans and budgets are standard in the initial project development phase and lease agreements.[8]

How will the solar project affect the aesthetics of my community?

Ask the developer how they plan to make the solar project blend into its surroundings. Typical steps include planting trees or shrubs, building fences, and locating the project away from roadways.[9] It should also be noted that studies have concluded that the installation of utility-scale solar on a property has no negative impact on its value.[11]

Who is responsible for decommissioning the solar panels once the lease has expired?

Project developers often have contractual obligations to maintain solar systems and facilitate their removal at the end of the lease period. In the unusual event that the solar developer goes out of business, the predictable revenue stream from the sale of electricity to the local electric utility will make the solar project attractive to potential buyers. Additionally, solar panels retain value as scrap materials after their useful life, which significantly offsets the cost of their removal. Many communities have set standards for decommissioning in the event of these very unlikely abandonments.[14]

Sources

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