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An Agricultural Law Research Publication

Farmland Owner's Guide to Solar Leasing

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THE OHIO STATE UNIVERSITY
COLLEGE OF FOOD, AGRICULTURAL, AND ENVIRONMENTAL SCIENCES

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About this Guide

With funding from the **National Agricultural Library** at the United States Department of Agriculture, the **National Agricultural Law Center** partnered with the OSU Extension Agricultural & Resource Law Program in the College of Food, Agricultural & Environmental Sciences at **The Ohio State University** to produce this guide for agricultural landowners faced with decisions about leasing land for solar energy development.

The authors of the guide are **Peggy Kirk Hall**, Associate Professor in Agricultural and Resource Law and Director of the OSU Extension Agricultural and Resource Law Program; **Evin Bachelor**, Senior Research Associate and Law Fellow with the OSU Extension Agricultural and Resource Law Program; and **Eric Romich**, Associate Professor and Field Specialist in Energy Education for OSU Extension.

Special thanks and acknowledgements

We are grateful to **Ryan Conklin**, attorney with Wright & Moore Law Co., LPA in Delaware, Ohio, for providing extensive insights into solar leases from the perspective of a private practitioner, and to **Dr. Shannon Ferrell**, Associate Professor in Agricultural Law at Oklahoma State University, whose webinar on solar leasing for the National Agricultural Law Center served as a foundation for the guide.

Photo credits

Thank you to Eric Romich and Ken Chamberlain of Ohio State University Extension and Steve Seitz, Wyandot County Commissioner, for providing all photos for the guide, with the exception of the Creative Commons photograph on pages 1 and 30.

How to use this guide

This guide aims to help farmland owners understand solar energy development and the solar energy leasing process. The guide includes specific information for **Ohio**, but other information about solar leasing in the guide is relevant for farmland owners in **any state**. However, we recommend that a farmland owner confer with an **in-state attorney** to clarify legal issues specific to the state.

The guide includes a lot of information, so we've developed several tools to help readers navigate and understand the material.

At the start of each chapter, a rounded box like the one on the right highlights the topics covered in the chapter. The content of these boxes matches the topics in the table of contents. As an additional navigation tool, this guide highlights key phrases in **bold.**

In this chapter

- *Letter of intent*
- *Option to lease*
- *Solar lease*

Sometimes there are points that just need a little extra explanation or emphasis. Boxes with angled edges like the one on the right provide additional information worth highlighting, special points of emphasis, and chapter summaries.

Tips and Highlights

Check out boxes like this one for additional information, special points of emphasis, and chapter summaries.

One goal of this guide is to familiarize and educate readers on the language and terms they will encounter in a solar lease. Be on the lookout for boxes like the one on the right that contain language taken from actual solar leases.

"After the construction of the Solar Facilities, the Developer will remove any construction debris and will restore the portions of the Premises not occupied by the Solar Facilities to substantially the same condition that such portions of the Premises were in prior to the construction of the Solar Facilities."

The final chapter of the guide organizes solar leasing issues into a **checklist tool** that reviews questions to ask and actions to take when thinking about solar energy development on the farm.

Before signing

1. **Assemble your team of experts.** You do not have to make an important decision like this on your own. From family members to your attorney and accountant, others can help you make an informed decision.

__ Attorney
__ Accountant
__ Insurance provider
__ Lender
__ Extension educator
__ Family
__ Business partners
__ Neighbors

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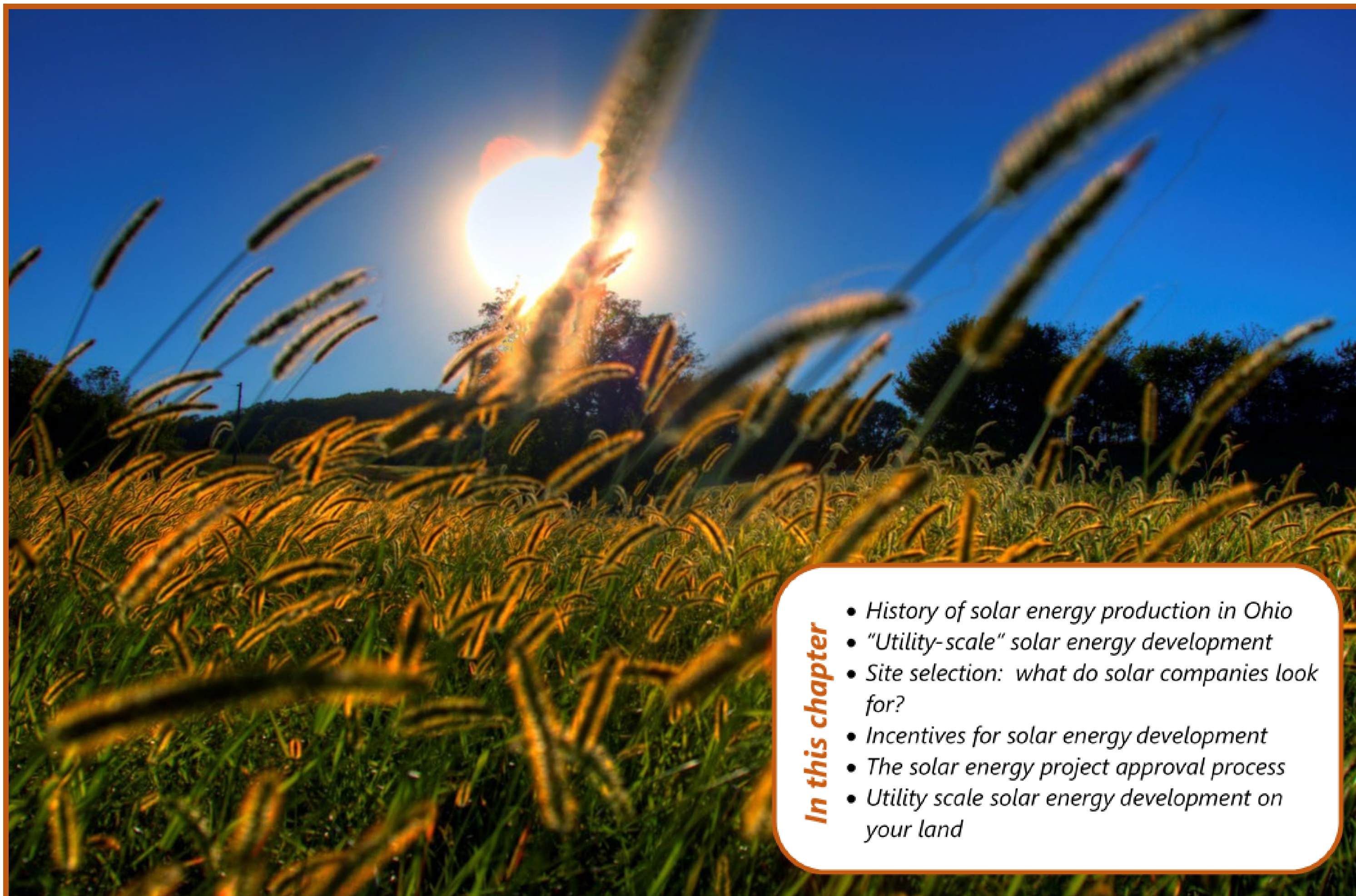


In this chapter

- *History of solar energy production in Ohio*
- *"Utility-scale" solar energy development*
- *Site selection: what do solar companies look for?*
- *Incentives for solar energy development*
- *The solar energy project approval process*
- *Utility scale solar energy development on your land*

1 Solar Energy Development in Ohio

While solar energy production has a brief history in Ohio, "utility-scale" production is on the rise. A landowner can benefit from learning about the history and the current state of solar energy in Ohio, as well as how a project develops—from site selection to construction and finally, production.

1.1 History of solar energy production in Ohio

Over the past decade, Ohio has experienced considerable growth in photovoltaic (PV) solar development. In 2009, Ohio had 14 solar projects certified with the Public Utilities Commission of Ohio, growing to more than 2,697 projects representing 210 megawatts (MW) of capacity in June 2019. Prior to 2018, most solar projects in Ohio were small projects located on homes, farms, and businesses. In fact, of the 2,697 Ohio solar projects, the average system size was 78 kilowatts. Prior to 2019 there were only two projects larger than 10 MWs, including the 28.7 MW DG AMP Solar Bowling Green project and the 12 MW Wyandot Solar Energy Generation Facility.

As of May 2019, nine large scale solar cases representing 1,325 MWs of potential capacity were submitted to the Ohio Power Siting Board; six have been approved and three are pending approval. While OPSB application approval does not guarantee a project will ultimately be built, Ohio's PV solar capacity would increase by 630 percent to a total of 1,535 MW if all nine projects currently under review with the OPSB are constructed. These nine projects would require a footprint of 16,500 acres of land to support the development.

1.2 "Utility-scale" solar energy development

Since 2012, the utility-scale solar sector has led the overall U.S. solar market in installed capacity. In 2017, the utility-scale sector accounted for nearly 60% of all new solar capacity additions. Based on past trends and future projections, utility-scale solar development will continue to thrive. But what does this mean? How can you determine if a solar project is a "utility-scale" project or not? Physically, there is very little difference between a large solar project installed on a farm and a utility-scale solar project. They often use the same racking components, inverters, and solar modules, making it difficult to differentiate the two based on visual appearance.

Companies and experts use different metrics to define "utility-scale" solar because the industry and regulators have yet to adopt a standard metric. Some classify utility-scale solar projects based on the structure of the electric offtake arrangement, while others base it on the size of the investment.

Two primary differences between commercial and residential solar projects and utility-scale solar projects are that utility-scale solar projects are typically greater than 5 MW and the electricity generated is interconnected to the electric distribution or transmission grid. Under a utility-scale solar model, either an electrical utility owns the project or an independent project owner enters into a power purchase agreement to sell electricity to wholesale utility buyers.

How much is a megawatt?

A megawatt equates to one million watts of electricity, and a megawatt hour measures the number of megawatts consumed in one hour.

An old trick of the hand said that one megawatt could power 1,000 homes; however, that number assumes that everything will operate at peak efficiency with no energy loss during transmission. Plus, the average home consumes more electricity than it used to.

The Solar Energy Industries Association calculates that one megawatt of solar powers between 150 and 210 homes on average in the United States; however, that number continues to increase with improved technology and more utility-scale production.

Utility-scale solar projects are no longer modern marvels limited to the sunny skies of Southwestern deserts, but instead are now commonly found in densely populated areas and the rural countryside of the upper Midwest and Northeast. The increasing development of utility-scale PV solar consumes massive tracts of land for development. According to the National Renewable Energy Laboratory report, the average total direct land requirements for PV solar projects greater than 20 MW is 7.5 acres per MW for fixed-tilt systems, 8.3 acres per MW for single axis tracking systems, and 8.1 acres per MW for dual axis tracking systems.

A study from the National Renewable Energy Laboratory titled "U.S. Renewable Energy Technical Potentials: A GIS-Based Analysis," estimates the technical potential of specific utility-scale PV solar development in the United States. This study estimates the potential energy generation based on solar resource availability and quality, technical system performance, topographic limitations, environmental, and land use constraints. These estimates do not consider social, policy, economic, or market constraints, and therefore do not reflect a level of generation that will actually be deployed. The study analyzed the potential for utility-scale PV solar development for both open spaces located within urban boundaries and rural areas located outside the urban zones.

Based on the estimates, Ohio ranked fifth in potential urban utility-scale solar land area with 294,055 acres yielding a generation potential of 86,496 gigawatt hours. When considering the potential rural utility-scale solar land area, Ohio ranked 26th with 12,332,535 developable acres yielding a generation potential of 3,626,182 gigawatt hours.

Table 1: State Ranking of Photovoltaic Solar Cumulative Capacity Installed Through February 2019

Rank	State	Net Summer Capacity (MWs)	Global Horizontal Irradiance** (kWh/m^2/day)
1	California	18,876	5.15
2	North Carolina	4,135	4.63
3	Arizona	3,231	5.78
4	Texas	2,448	4.96
5	New Jersey	2,240	4.17
6	Massachusetts	2,164	4.06
7	Nevada	2,027	5.35
8	Florida	1,623	4.91
9	New York	1,529	3.90
10	Utah	1,100	4.68
25	Ohio	208.3	4.03

** Global Horizontal Irradiance for this chart is based on the location of the state capital.

Sources: U.S. Energy Information Administration, Form EIA-860, 'Annual Electric Generator Report' and Form EIA-860M, 'Monthly Update to the Annual Electric Generator Report.'

Global Horizontal Irradiance is based on data from the National Renewable Energy Laboratory System Advisory Model typical meteorological year data developed using methods described in the technical notes.

1.3 Site selection: what do solar energy developers look for?

Many factors go into selecting a property as a potential utility-scale development project.

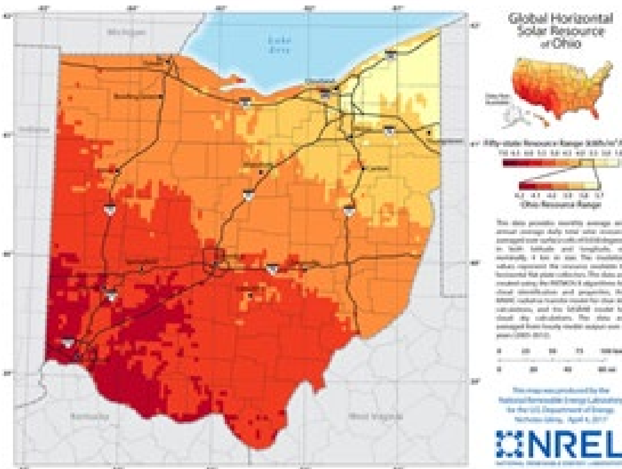
Three important factors are the potential amount of sun a site might receive, a property's proximity to transmission infrastructure, and physical qualities of the property.

Examining a property's **solar potential** can help determine how much sun the solar modules in a development might receive. Ohio is not commonly associated with the long sunny days often linked to solar energy production because of its wet springs and cold snowy winters. However, as illustrated in Table 1, Ohio's solar resource is similar to many solar industry leaders on the east coast, including New Jersey, Massachusetts, and New York.

The **Global Horizontal Irradiance** (GHI) is a metric used by the PV solar industry to measure solar potential. It in essence describes the amount of energy that could be produced from the sun in a given spot if all of that energy were converted to electricity. It includes total solar radiation, which factors in both Direct Normal Irradiance and Diffuse Horizontal Irradiance per unit area that reaches a horizontal surface.

As a state, Ohio has a wide range of GHI, ranging from a kWh/m^2/day of 3.93 in Youngstown, to 4.05 in Bowling Green, 4.03 in Columbus, and 4.15 in Dayton. Based on the GHI resource data, the best location for utility-scale solar development in Ohio is in the southwest region of the state. Image 1 maps Ohio's GHI resource.

Image 1: Global Horizontal Irradiance Resource for Ohio



It is also critical that a site is in close **proximity to transmission**. The site should be near a suitable grid interconnection point with adequate capacity and grid availability. Two simple questions must be addressed when structuring a utility-scale solar project: 1) who will buy the electricity, and 2) how will it be delivered? Interconnection into the electric grid provides a physical path to deliver the electricity generated by the solar project to the purchaser of the power. Interconnection represents a critical cost component of project development. To reduce project cost, developers will seek sites with low interconnection costs. Pre-application studies help developers strategically identify optimal grid interconnection locations, while dismissing problematic sites that require additional upgrades in grid infrastructure.

Ohio's transmission grid consists of 6,983 miles of high voltage transmission lines and 112 miles of low voltage transmission lines, providing developers ample interconnection opportunities. Ohio is located in the PJM Interconnection, a regional transmission organization that manages a competitive wholesale electricity market and a high-voltage electricity grid reaching more than 65 million people in Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia and the District of Columbia. Access to the PJM Interconnection provides developers the opportunity to participate as a merchant power plant in an open market, or to engage individual businesses in direct power purchase agreements of renewable energy. A recent emerging trend is corporate customers directly procuring renewable energy from independent power producers as a cost savings strategy and to meet corporate sustainability goals. For example, in 2018, there were 75 new corporate renewable deals, supporting almost 7 gigawatts of new projects.

Several **physical qualities of the property** also affect selection of a solar development site. In addition to solar capacity and proximity to transmission, developers also look for locations that provide flat ground with slopes less than three percent, have minimal zoning, environmental, or permitting issues, do not have shading obstructions, and possess good drainage characteristics.

1.4 Incentives for solar energy development

Advances in technology and policy mandates that require the installation of PV solar have contributed to the reduction of system costs. For example, according to the National Renewable Energy Laboratory 2018 U.S. Solar Photovoltaic System Cost Benchmark report, the inflation-adjusted system cost for residential PV solar installations reached $2.70 per/DC-watt, while commercial projects were $1.83 per/DC-watt and utility-scale PV solar projects posted at $1.06 per/DC-watt. Specifically, comparing the declining system costs of inflation-adjusted utility-scale solar projects between Q1 2010 and Q1 2018 show a 77 percent decrease from $4.63 per/DC-watt to $1.06 per/DC-watt. Despite declining costs for PV solar, incentives are critically important to the cost-effectiveness of a project. Incentives come from four primary sources that include federal, state and local governments and utility companies.

The Federal **Business Energy Investment Tax Credit** (ITC) program was originally established in the Energy Policy Act of 2005. This incentive program is a cornerstone tool for renewable energy project development. In 2016, many solar project developers felt a sense of urgency to get projects under way, as the 30 percent ITC program was scheduled for elimination or drastic reductions after December 31, 2016. While the passage of the Consolidated Appropriations Act extended the ITC program, there is once again a sense of urgency to get projects completed in order to take advantage of higher tax credit levels. For projects that start construction by the end of 2019, the ITC program offers a 30 percent tax credit of the eligible construction and equipment costs allowing the project owner to obtain a dollar-for-dollar reduction in federal income tax liability. This tax credit can be carried back one year or carried forward 20 years to monetize the full value of the tax credit. Projects that start construction in 2020 are eligible for a 26 percent ITC credit, while projects that begin in 2021 may claim a 22 percent ITC credit. After 2021, the commercial ITC credit will drop to a permanent 10 percent and the residential ITC program will expire.

A **renewable portfolio standard** (RPS) is a state policy that mandates a percentage of the state's overall electricity generation that must be produced from renewable energy. In many cases, the amount of renewable energy required will increase annually from the baseline or benchmark to reach an ultimate target set over a predetermined timeframe. As of 2019, 29 states and Washington, D.C. have established RPS mandates, and an additional eight states have voluntary RPS goals. Ohio passed Senate Bill (S.B.) 221 in the spring of 2008, which included the state's first RPS standards. The policy originally required utilities to generate 12.5% renewable energy by 2024. The legislation also included a solar carve out with specific targets of one-half percent solar energy generation by 2024. However, Ohio passed S.B. 310 in June 2014, which placed a two year freeze on progress toward the 12.5% mandate by 2024. As a result, the current RPS targets in Ohio are set at 12.5% renewable generation by 2026. The amendments in S.B. 310 also allowed renewable energy project owners in neighboring states to certify their projects with the Public Utilities Commission of Ohio and to allow the renewable electricity imported from these projects to contribute to Ohio's RPS determination.

To monitor compliance of state RPS standards, a system of credits known as **Renewable Energy Credits** (RECs) were developed to validate and track the amount of renewable energy generated during a compliance period. In Ohio, a REC represents the environmental properties associated with one MW-hour of electricity generated by a renewable energy facility certified by the Public Utilities Commission of Ohio. A **Solar Renewable Energy Credit** (SREC) is one MW-hour of electricity generated by a certified PV solar system, which counts towards compliance of a specific solar carve-out mandate. The Public Utilities Commission of Ohio monitors compliance annually to determine if utilities are in compliance with the RPS Standards. Utilities can meet their annual benchmark obligations by developing and owning a REC producing certified renewable energy facility or purchasing RECs from other qualified renewable energy projects.

In July 2019, Ohio House Bill (H.B.) 6 was signed into law to promote electricity production from clean air resources that improve air quality in Ohio. The new law creates an electricity rate rider ranging from 85 cents to $2,500 for all Ohio electricity customers to establish a clean air fund. These funds will first be made available as subsidies for two nuclear power plants in Ohio and the remaining funds will establish a reduced emissions program for other technologies that attempt to reduce their emissions. In addition, the new law will reduce the original 12.5% RPS target to 8.5% renewable generation by 2026.

Ohio established **Alternative Energy Zone** legislation in 2010 in S.B. 232. The law authorizes counties to establish an Alternative Energy Zone and exempt qualified energy projects in the zone from paying the public utility tangible personal property tax and real property taxes. The utility-based taxes are replaced by a standardized **payment in lieu of taxes** (PILOT) program which establishes a set annual fee based on the facilities' total nameplate capacity. The base PILOT fee is set automatically at $7,000 per MW of nameplate capacity for qualified solar projects. For all other non-solar qualified energy facilities, the PILOT fee is between $6,000 and $8,000 per MW and is based on the percentage of Ohio-based employees utilized during the construction period. The county may integrate an additional service payment not to exceed $9,000 per MW when combined with the base PILOT fee. The PILOT base fee is to be distributed to local governments and school districts in the same way as the tangible personal property taxes, while any additional service payment required by the county is to be deposited in the county general fund.

To qualify for the PILOT program, a renewable energy facility must apply to the Ohio Development Services Agency for status as a "qualified energy project" before December 31, 2020. For qualified energy projects greater than 5 MWs, the agency forwards the application to the county commissioners for approval and to each taxing unit in the impacted counties. In addition, the county can pass a local resolution to establish the entire county as an "alternative energy zone," which has the effect of pre-approving PILOT for any qualified energy projects located within the zone. If the county commissioners reject the application or fail to act within 30 days, the exemption application is automatically denied.

1.5 The solar energy project approval process

Ohio created the Ohio Power Siting Board (OPSB) in 1972 to guide the development of major energy infrastructure projects based on public need, environmental implications, land use considerations and economic benefits. Before constructing a major utility facility in Ohio, developers must acquire a certificate of environmental compatibility and public need from the OPSB. Major utility facilities under OPSB jurisdiction include electric generation facilities of 50 MWs or more, including solar; electric transmission lines and associated facilities of 100 kilovolts or more; economically significant wind farms with a generating capacity of 5 MW or more; and gas pipelines longer than 500 feet with an outside diameter greater than 9 inches designed for transporting gas at a maximum operating pressure in excess of 125 pounds per square inch.

The OPSB process is designed to inform and engage local residents in the review process. Legal notices of applications are published in local newspapers near the impacted area, and the notices list local libraries where residents may review a copy of the application. All case records are also available online.

Public participation is an important part of the OPSB project review process. There are various ways local residents can participate in the process and voice questions, concerns, or support. First, prior to filing an application to build a new facility, the developer must hold a public meeting to share project details, gather input, and hear concerns. Representatives from the OPSB attend the pre-application meeting to discuss the siting and public participation process. Second, interested parties are encouraged to submit informal written comments to the OPSB, which are filed in the public comments section of the case record to inform the OPSB during its investigation. Third, the OPSB hosts a public hearing after making its recommendation. At the hearing, community members can provide sworn testimony or submit written statements to the case record. Finally, individuals, organizations, and governments may formally intervene in the case and participate as a party of record in the case proceedings.

To learn more about a utility-scale solar project in or near a community, visit the OPSB website at https://www.opsb.ohio.gov. Local residents can stay connected by reading case documents online, signing up to receive news releases and board meeting agendas, subscribing for case updates, reviewing the OPSB calendar for upcoming events, and following the OPSB on Facebook. In addition, the OPSB is available by phone at 866-270-OPSB (6772), and by email at contactOPSB@puco.ohio.gov.

1.6 Utility-scale solar energy development on your land

Once complete, a utility-scale solar project has minimal moving parts and no noise, smell, or emissions. For the most part, the system simply sits there and generates electricity. However, a great deal of activity takes place on the land prior to project completion. Initially, the developer needs to access the land to collect land use information and conduct feasibility studies. During the construction phase of a project, the site experiences disturbances such as site grading, soil erosion, soil compaction, damaged field tile, and noise. It is important to remember that the site becomes a major construction zone for a period of time, with heavy equipment used to grade access roads, dump trucks with stone to build laydown yards, flatbed trailers delivering equipment components to construct the arrays, trencher plows to lay cable, concrete trucks and cranes to set power enclosures, and hydraulic post drivers to set racking, as illustrated in the following photos. Such activities may disturb neighbors.

Once construction of a solar project is complete, ongoing operations and maintenance activities for the project occur. These activities include panel cleaning, thermograph testing for wire faults, inspecting combiner boxes, inverter maintenance, inspection of racking support, and spraying and mowing for vegetation control.

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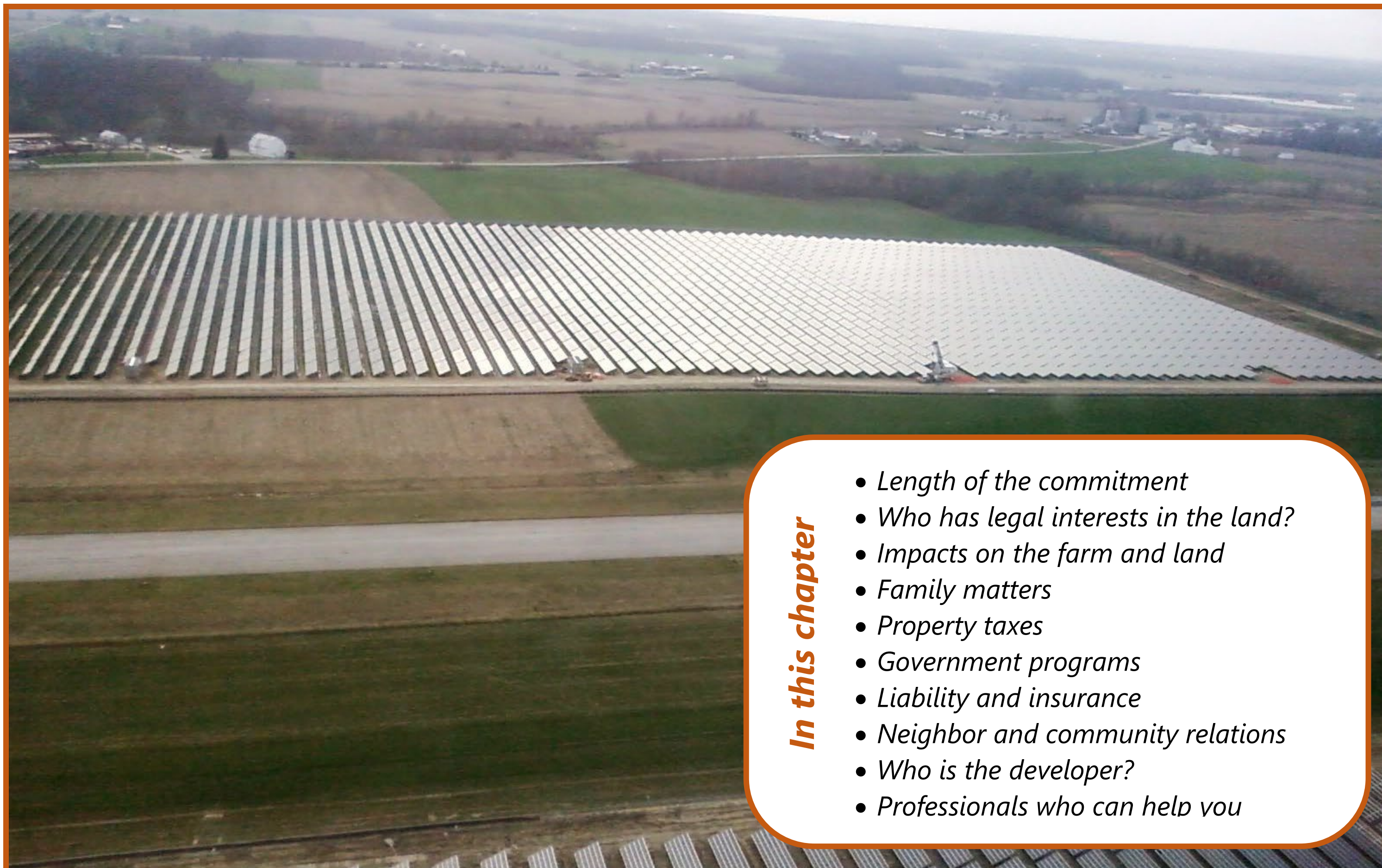

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- *Who has legal interests in the land?*
- *Impacts on the farm and land*
- *Family matters*
- *Property taxes*
- *Government programs*
- *Liability and insurance*
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2 Solar Energy on Your Land: Initial Considerations

Dedicating land to solar energy development is a long-term commitment that can have both positive and negative impacts on a farm and its owners. In this chapter, we review initial considerations that can help a landowner decide whether a solar lease is a good fit for the farm, the family, and the community.

To help determine if a solar lease is right for you, give careful thought to the many implications of solar energy development on your farm. How might solar leasing affect your land and how you use it, your farm business, your family and its plans for the future, and your neighbors and community? Consider also the many related legal issues such as other legal interests in the land, property taxes, government programs, and liability risk. Thinking through these initial issues should help you decide whether to lease your farm for solar development, and if you choose to do so, should help you plan for the future and avoid unexpected consequences.

2.1 Length of the commitment

A common first question we hear about solar leases is "how long do they last?" A solar energy project can exist on your land for a long time—as many as 20 years or more, with automatic extension periods of five to ten years. It's important to anticipate future events that could occur during this time period and ensure that the solar development won't conflict with or preclude anticipated needs or uses of the farmland. It's difficult and perhaps nearly impossible for a landowner to back out of a solar lease agreement, so be prepared to commit the land for the entire length of the solar lease agreement.

2.2 Who has legal interests in the land?

It may seem obvious that a landowner must have the legal right to grant a solar lease, but many legal rights held by others could interfere with a landowner's right to lease the land. When considering whether or not to enter into a solar lease, a landowner must determine what other types of legal interests in the land exist and should identify ways to address the interests.

For example, a lender could have provisions in an existing **mortgage** on the property that would prohibit the landowner from granting this type of legal interest to another party, or could require permission from the lender before doing so. Violation of such provisions could allow the lender to declare a default and demand payment of the mortgage balance. On the other hand, a solar energy developer might require the landowner to obtain a subordination agreement from the lender, which would ensure that the lender would not evict the developer if the landowner fails to pay the mortgage. A lender might or might not be willing to sign a subordination agreement.

A **farmland lease** is another legal interest that could conflict with the granting of a solar lease. A tenant or lessee of an existing farmland lease would have legal rights if a landowner would attempt to terminate the lease before the end of the lease period. A written farmland lease might address how to handle an early termination by the landowner. A common approach is to require the landowner to "buy out" the remainder of the lease by reimbursing the tenant for expenses and lost profits. As we explain in Chapter 4, a solar lease can contain provisions for reimbursement when construction of the development causes crop damages. This mechanism could allow the landowner to reimburse a tenant if the construction begins when a tenant's crop is still in the ground. A landowner should assess the potential of interfering with an existing farmland lease, and pay special attention to the costs of terminating a farm lease that still has many years remaining in the lease period.

Likewise, a **hunting lease** could be problematic for a landowner. As we discuss in Chapter 4, many solar leases do not allow hunting on or near the solar development site. If there is an existing hunting lease, a landowner may need to terminate or revise the lease in accordance with the solar lease. These actions might require a landowner to reimburse lease payments, improvements or other benefits that were provided in exchange for the lease.

Mineral rights might also exist on the land. If someone holds a legal interest in oil, gas, coal or other minerals beneath the surface, those rights could be impacted by a solar development. For this reason, a solar developer will have concerns about leasing land if someone else holds the mineral rights, and might require a landowner to obtain a formal termination of the mineral estate. As with a farmland lease, this could require a buyout by the landowner. It's possible, however, that a solar developer would allow mineral rights to exist if development could occur without harm to the solar energy project.

Easements also grant legal interests in land to other parties, and a solar development could interfere with easement rights. Farmland often has many easements, such as easements for utilities, drainage, wetlands, conservation and farmland preservation. Easement language often prohibits any conflicting land uses on the easement property, which would give the easement holder a legal right to object to the solar lease or seek payment for easement violations and interferences. A landowner should determine the existence of all easements on the property and ensure that a solar lease would not conflict with existing easements.

A final legal interest in the property to consider is the interest of **joint owners, business entities or trusts**. All co-owners of the property must agree to a solar lease. If a business entity or trust holds title to the land, the business entity or trust must be the party that enters into the lease, in accordance with the entity's operating procedures or trust provisions. A solar lease must have the approval of all co-owners of the land or the business entity or trust that holds title to the land.

2.3 Impacts on the farm and land

A solar energy development can have tremendous **physical impacts** on the land, both during the solar project's lifetime and afterwards. We explained in Chapter 1 that the land will be a major construction site for a period of time. Heavy equipment may cause soil compaction. Installation of solar modules and trenches could disrupt subsurface and surface drainage systems, and subsurface drainage tiles beneath the development site could be inaccessible for future repairs. Since we have not previously experienced utility scale solar energy development projects in Ohio, it is difficult to know how long-term such physical impacts will be and how successfully the land can convert back to agricultural uses at the end of the solar lease period.

If a portion of a farm's land would be used for a solar development, what effects might there be on the **farm operation**? Financial benefit is one potential positive impact. Predictable annual payments can provide income and stability to a farm operation. A solar lease could also have negative impacts on a farming operation. Removing parcels of land from agricultural production will require a reconsideration of the components of the operation. With fewer acres, operating costs could increase on remaining parcels. The loss of grazing, forage, or manure application land could require a decrease in livestock numbers. The location of the development could interfere with access to sections of the farm, making it more difficult to engage in farming activities.

It is also possible that a solar development will affect a landowner's ability to **leverage equity** in the land. Committing the land to a long term physical development like a solar energy project can affect the land's value and its desirability to loan lenders. Analyzing how a solar lease would impact business or personal lending and liquidity needs would be a useful discussion to have with a lender.

What **other land uses** on the farm could be foreclosed, limited or required because of a solar energy development? Be aware that a solar lease will prohibit a landowner from interfering in any way with the development's access to sunlight. This restriction could prevent a landowner from constructing new buildings or making improvements, even planting trees. It could also require a landowner to trim back or cut down existing trees that block sunlight. A lease could also prohibit hunting in or around the project site. The location of the solar development site could interfere with the landowner's access to woodlots and water bodies. Additional house lots on the farm may not be possible or desirable, and the view of those who live on the farm could change from farm fields to solar fields. A careful assessment of these impacts on the farm and the land could prevent unexpected limitations on how a landowner can use land that is subject to or near the solar development.

2.4 Family matters

Farms and farmland can be important components of a family's heritage and wealth, which raises the need to know how all family members could be affected by a solar lease. Would a solar lease prevent or hinder the next generation's ability to farm the land? Do all family members support removing the land from agricultural production? Are there current estate or farm transition plans in place that must be revised if the land is subject to a solar lease? How might the solar lease affect retirement or long-term health care needs? Asking these questions of family members, an attorney, and a financial planner may provide necessary clarity on critical issues.

2.5 Property taxes

The construction and operation of a solar energy facility on farmland can affect eligibility for Ohio's Current Agricultural Use Valuation (CAUV) program. The program allows land devoted exclusively to commercial agricultural use to be assessed at a lower value for property tax purposes. Because a solar energy development is not "commercial agricultural use" according to Ohio Revised Code § 5713.30, the land would not qualify for CAUV reduced tax assessment. Additionally, removing the land from the CAUV program could initiate a "recoupment penalty." A landowner who converts a parcel of CAUV-qualifying land to a non-agricultural land use must pay a penalty equal to the tax savings received on the converted land in the three previous tax years. But note that Ohio Revised Code § 5713.34(A)(3) states that a recoupment penalty does not apply if only part of a parcel converts to a solar energy "facility" and the remaining continues to be devoted exclusively to agricultural use, and §5713.30(B)(4) allows the remaining portion to continue in the CAUV program. An energy "facility" means the solar panels, interconnection equipment, and cables, but does not include construction areas, holding lots and similar uses. Because of these potential tax ramifications, it is important that the landowner and solar developer address in the lease agreement who will pay for the potential property tax obligations.

2.6 Government programs

Yet another question to consider is how leasing farmland for solar energy development will affect eligibility for government programs such as the USDA's Conservation Reserve Program, Conservation Reserve Enhancement Program, and Environmental Quality Incentives Program. Placing a solar facility on lands that are under these types of USDA program contracts could violate the terms of the contracts and trigger penalties, loss of future payments, or reimbursement of past payments. A solar developer might be willing to address these financial losses for the landowner. Because solar development on farmland is still relatively new, the USDA does not have a formal policy on the compatibility of solar energy facilities with conservation program lands. This makes it imperative for a landowner who has land in such programs or plans to enroll land in the future to discuss the situation and implications with the appropriate agency personnel.

2.7 Liability and insurance

Does having a solar energy development on the farm pose additional liability risks for a farmland owner? What if someone visiting the farm suffers an injury at the solar facility? What if a curious neighbor child breaks into the site and is harmed? Or a hunter's stray shot breaks a solar panel? These questions raise issues not only of whether a landowner will be responsible for someone harmed at the project site, but whether the landowner will be liable to the developer for harm to the solar project. The answers to these questions will depend largely on the facts of the situation and the terms of the solar lease agreement.

Insurance and indemnity clauses are common in solar leases. An insurance clause might require both the landowner and the developer to maintain certain levels and types of liability insurance. An indemnification clause might attempt to shift liability for damages or injuries to the landowner if such harm was not the result of the developer's inaction, misconduct, or negligence, or could work the other way and shift liability for harm to or by trespassers to the solar developer. Because of such insurance provisions, it's important for a landowner to review liability risk and insurance needs with an insurance professional. Insurance providers have risk analysts who can estimate appropriate amounts of coverage in light of the lease. These risk assessments are a helpful piece of information for a landowner debating whether or not to enter into a solar lease.

2.8 Neighbor and community relations

Changing land from farmland to a solar energy project can affect neighbors and the surrounding community. As with other forms of energy development, there will be neighbors and others who do not like solar energy or don't want to see solar modules in the landscape. Some may fear that the development will lower their property values or will not be removed at the end of the lease period. Neighbors will be subject to noise, dust, and truck traffic during a solar project's construction period. Nearby organic farms and home businesses may be particularly concerned about potential impacts on their lands and businesses. All of these issues may raise conflict in the community and between neighbors, particularly if the neighbors are the last to know about an impending solar project.

Remember that the solar project approval process described in Chapter 1 allows any interested party to review the solar project materials and submit written comments on the project to the Ohio Power Siting Board. A landowner who is considering a solar lease must be prepared for both positive and negative reactions from neighbors and the community, and such reactions could be made public through the regulatory process. The landowner may need a plan for determining how, when, or whether to notify the neighbors of the solar lease and whether or how to address neighbor concerns.

Zoning is an issue that neighbors and community members might raise as a means to limit utility scale solar energy production. However, Ohio law limits local zoning authority over "public utilities." Counties and townships have no authority to regulate:

> *"the location, erection, construction, reconstruction, change, alteration, maintenance, removal, use or enlargement of any buildings or structures of any public utility* […], *or the use of land by any public utility or railroad, whether publicly or privately owned, or the use of land by any public utility or railroad for the operation of its business."* Ohio Revised Code §§ 303.211(A), 519.211(A).

Supplying electricity for light, heat or power purposes to consumers within the state qualifies as a "public utility" according to Ohio Revised Code § 4905.03(C).

Note that the Ohio Legislature has granted a slight exception to this zoning limitation by giving counties and townships authority to regulate the location of small wind farms, but a similar exception does not exist for solar projects. Therefore, a county or township can't "zone out" a solar energy development that supplies electricity for consumers.

These limitations should not be confused with Ohio's "agricultural exemption" from county and township zoning regulations. Many farmland owners are likely familiar with this exemption, which limits county and township zoning authority over agricultural land uses and structure. The agricultural exemption does not apply to farmland that will transition to a solar energy development.

2.9 Who is the developer?

A multi-decade lease sets up a long-term relationship between the landowner and developer. Knowing who is on the other side of that relationship can minimize future problems between the parties. Is the developer in a sound financial position? If not, payment issues might arise. Is this a new business, or does the developer have little experience with solar energy production? If not, the project might not go as planned. What reputation does the developer have with other parties, especially other landowners? Answering these questions requires a farmland owner to engage in "due diligence" on the solar development company. While learning as much as possible about the company may be a difficult task, it could help avoid entering into a problematic relationship.

Be aware that in some cases, the initial contact with a landowner is by a "landman" or a land broker who is assembling parcels for or to sell to a developer. Landowners should verify whether the party they're dealing with is a landman or a developer. If the person is a landman, try to determine whether a developer is also involved and whether the landman has full authority to negotiate on behalf of the developer.

2.10 Professionals who can help you

This chapter illustrates the complexity of making a decision about leasing farmland for utility scale solar energy production. While we've raised many issues to consider, other professionals that farmland owners work with might have additional issues of concern for particular situations. These professionals can provide valuable insight and guidance for the solar leasing process. We recommend assembling a team of professionals who can help you, which could include:

- Attorney familiar with solar leasing
- The farm business or family attorney, if different than the above attorney
- Accountant
- Financial planner
- Lender
- Insurance professional
- Extension experts in energy education, agricultural law, farm management, agronomy and community development

Final words on initial considerations

This chapter explains important legal and social considerations to make before signing a solar lease, but it should serve as a foundation for further inquiry. Each farm and each family is unique. A farmland owner may have other factors to consider before deciding to commit to a long-term solar lease. If your gut tells you to think more about a particular issue, trust your judgment and inquire further before making a long term decision.

Who can help you learn about a solar energy developer?

The developer. Ask for the most recent financial and annual reports, a project portfolio, and names of landowners with whom the developer has done business.

The Ohio Secretary of State's online "Business Search" tool. A landowner can see whether the company is registered to do business in Ohio, find its address and agent for contact purposes, and learn whether the company is operating for-profit or as a non-profit. The website's "Uniform Commercial Code" tool lets a landowner see whether there are any financing statements filed by creditors of the company. Find this information at https://businesssearch.sos.state.oh.us.

The Better Business Bureau. This organization can help determine whether people have lodged complaints against a company.

Credit check services. Companies like Dun and Bradstreet can provide a credit check on a business or individual for a fee.

County Recorder's office. Check for names of other landowners with solar leases that have been recorded in the public records. While others under lease may not be able to discuss confidential information, they may be willing to talk about their working relationship with the company.

Attorneys who have worked on solar leases. They may know about a solar developer, its reputation, and its willingness to work with landowners.

The Ohio Power Siting Board. A search through this agency's online records will show if the developer has any other energy development projects in process.

The Solar Energy Industry Association. SEIA established a business code to promote transparency, good faith, and understanding in the solar energy industry. Check the code at https://www.seia.org, and ask the developer if it is a member of the association.

A general online search. Use Google or another search engine to find the developer's website, along with any news, articles or other information about the developer.

Resources

"Energize Ohio," *Community Development*, Ohio State University Extension, go.osu.edu/utility_solar.

"State Programs," *Farm Service Agency: Ohio*, United States Department of Agriculture, https://www.fsa.usda.gov/state-offices/Ohio/programs/index.

Ted Feitshans and Molly Brewer, "Threshold Issues for Landowner Solar Leasing," North Carolina State Univ. Extension, (Feb. 2, 2016), https://content.ces.ncsu.edu/threshold-issues-for-landowner-solar-leasing

In this chapter

- *Letter of intent*
- *Option to lease*
- *Solar lease*

3 Common Legal Documents

Legal documents can feel long and hazy, but they do not have to be hard to understand. Fortunately, solar energy developers often use similar legal documents to enter into the solar leasing process with landowners. Their contents will vary from developer to developer, but their purpose is consistent, as we explain in this chapter.

Solar developers have many ways of making an initial contact with a landowner in an area that's under consideration for solar development. A landowner might receive a letter, for instance, stating that the developer is seeking land for a solar energy development project and providing a phone number to call to learn more about leasing land for the project. Or a developer might send out a post card announcing a local informational meeting about a potential solar development project. These types of initial contacts are primarily informational and don't involve legal documents that seek to obligate a landowner to a leasing situation.

At some point, however, a solar developer will send a legal document or set of documents that attempt to engage the landowner in a legal agreement. Some developers prefer to use a "letter of intent" as the first step in the leasing process, while some may skip the letter of intent and send a landowner an "option to lease." Others might combine an option to lease with the actual solar lease. Because these documents can be legally binding, it's critical for a landowner to understand the content and legal implications of the documents. We explain each below and highlight important issues for landowners.

3.1 Letter of intent

One document that a solar energy developer may use after identifying a potential site for development is a letter of intent, also referred to as a term sheet or preliminary agreement.

The purpose of this type of document is to "reserve" the property while giving the company time to investigate the site. The document can be a short and informal notification to the landowner of the company's interest in the property, or it might be a more detailed description of the project with proposed solar lease terms.

Although a letter of intent is preliminary, a landowner must review a letter of intent carefully because the document might lock in the developer's right to lease the property if it decides to proceed with a project. If so, the terms in the letter of intent, such as payment amounts and length of the term, would be the terms that would apply to the leasing situation. A letter of intent that is signed by a landowner and contains the essential terms of a lease or a confidentiality clause can be **legally binding** and enforceable by a developer. However, if the document contains language stating that it is for "informational purposes only" or is "not to be interpreted as a binding contract," then the letter of intent is not attempting to bind a landowner to a contract.

The document usually includes a **confidentiality clause** that prevents the landowner from negotiating with other solar energy companies and requires the landowner to keep all information about the project confidential. This type of clause might state:

> "Landowner agrees not to solicit or negotiate or permit its agents or employees to solicit or negotiate or furnish information to any other solar power entity concerning the construction and development of a solar project on the Landowner's property."

3.2 Option to lease

While a letter of intent may or may not be binding, an option to lease is a binding agreement by a landowner that grants rights to the developer. Like a letter of intent, an option provides the developer with time to do its due diligence and investigate the property, secure other land parcels, and obtain financing and government permits. An option to lease will likely contain many of the essential terms of the solar lease. In fact, many solar energy developers will attach the proposed lease to the option document. Others might include an option within the lease, which negates the need for a separate option to lease document.

Be aware that while an option is binding on a landowner, **an option does not bind the developer** to actually develop the project. It only binds the developer if the developer chooses to exercise the option and proceed with the project. However, the developer must provide "consideration," the legal term for compensation, to a landowner in order for the option to be legally enforceable. The typical way to do this is to make a lump sum **payment** to the landowner for signing the option, which may be referred to as a "bonus payment." The option may also include the amount of an annual payment the developer will make to the landowner during the option period, on a per acre basis.

It's important to understand the **length** of the option period. An option might be in place at least one year, but it could last for several years or more. Two to five years appears to be common.

A developer may allow a landowner to continue to use the land for **crop production or grazing** during the option period. If so, there must be language in the option that addresses how the landowner can use the property during the option period. There should also be provisions for **damages to crops or forage** if the developer exercises the option and begins construction of the project when crops are in the ground. The document should explain how and when the developer will notify the landowner if it intends to proceed with the lease, which might allow the landowner time to remove crops and livestock from the project area in order to prevent damages.

Critical junctures

Whenever a solar energy developer sends you something in writing that requests your signature and offers you money, you want to make sure that you understand exactly what that document says.

We call this a critical juncture because the act of signing the document will **bind you** to whatever provisions the solar energy developer included, and courts will enforce it.

So be on the lookout for:

- A written document
- Requesting your signature and
- Offering you money

3.3 Solar lease

The solar lease serves as the primary written legal agreement between the farmland owner and the solar energy developer. It contains the terms of payment, the lease duration, rights and obligations of both parties, tax and liability issues, and more. Solar leases are commercial leases, and courts assume that parties to a solar lease can negotiate and understand the terms of the lease. While the law regulates residential leases to protect consumers, the law does not provide the same level of protection for a commercial lease. As courts are apt to enforce the terms of a solar lease, it is imperative that a landowner fully negotiates and understands the lease provisions. We discuss these provisions in detail in the following chapter.

Resources

Wendy Walker, "Agricultural Solar Energy Development: Understanding Lease Agreements for Utility-Scale Installations," MICHIGAN STATE UNIVERSITY EXTENSION (2019).

Final words on common legal documents

Solar energy developers commonly use documents such as the Letter of Intent, Option to Purchase and Solar Lease to create agreements with a landowner. Don't worry about what a document is called as much as what it means for you. It is in a landowner's best interest to **carefully read each document**. Ask questions, do research, and gain a clear understanding of what the document contains and how it obligates you. Be aware that signing a written document that requests your signature and offers you money may bind you to a legal agreement. When you receive a document from a developer, talk with an attorney and the rest of your professional team before signing the document.

In this chapter

- *The life cycle of a solar lease*
- *Common solar lease terms*

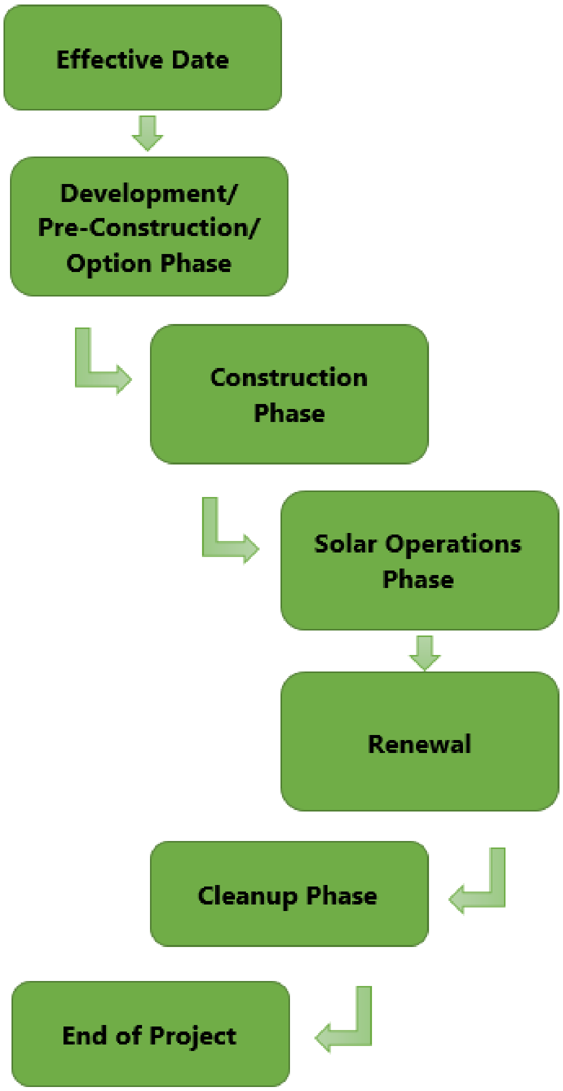
4 The Solar Lease

The solar lease is a long-term legal agreement that will dictate the rights and obligations of the solar energy developer and landowner. A landowner who negotiates and fully understands the terms of a solar lease is more likely to be satisfied with the arrangement. We begin this chapter by explaining the life cycle of a solar lease, then discuss common solar lease terms and highlight leasing issues of importance to farmland owners.

4.1. The life cycle of a solar lease

A solar energy lease has a life: a beginning, an end, and defined phases in the middle. Each phase in the lease involves different activities that the developer will have a right to conduct on the property. A landowner's rights and restrictions might also vary during these different phases, as will the amount of the rental payments. For these reasons, it's important to understand the different phases of a solar lease, when each begins and ends, and the rights and obligations that accompany each phase. Before we examine solar lease terms let's take a closer look at the phases of a solar lease, which we've illustrated on the next page.

Phases of a Solar Lease



The beginning of the lease's life is known as the **effective date**, which is the date on which the parties have properly signed the agreed upon lease. From this point forward, the parties are bound by a legally binding contract. Upon the effective date, a solar lease typically enters into a **development or pre-construction phase**. If the parties had not already entered into an Option to Lease as explained in Chapter 3, then the lease might refer to this phase as the option period. During this phase, the solar energy developer is determining whether it will or can install a solar energy facility on the land. The developer will have rights to enter the property for surveys, feasibility studies, and other investigatory practices. The developer could also be working on project design, regulatory approval, securing financing, and similar activities. A landowner might have rights to continue farming the land during this phase, which may last for about two to five years. Typically, if the developer doesn't begin or give notice to begin construction of the project before the end of this phase, the lease will terminate.

The **construction phase** is the period of time when construction activities occur. This phase includes site clearing, construction and improvement of roads, installation of temporary structures, fencing, solar modules and transmission equipment, and any other activities necessary for installing the solar facility. The length of this phase might last from nine months to over a year, depending upon the size of the project.

The **solar operations phase** begins when the equipment is on the ground and solar energy is actively being produced. This phase can range from 15 to 30 years, which is intended to give a developer time to enter into long term power purchase agreements with energy buyers and maximize the anticipated useful life of the solar energy equipment.

A solar lease usually also contains a **renewal period** that would allow the developer to continue the project for an additional period of time without having to renegotiate the lease, likely five or ten years.

Once the solar operations phase has run its course, the **cleanup phase** begins. During this phase, the developer will remove the solar facility. A common amount of time for a cleanup phase is one year from the completion of the solar operations phase. The end of the cleanup phase also signals the end of the project.

4.2 Common solar lease terms

As we noted in chapter 3, while each solar energy developer's lease template may look different from others, the lease documents generally contain many similar provisions. This consistency allows us to explain what those leases contain and what to look out for.

The guide loosely organizes the topics in an order that seems fairly common in solar leases, but this does not mean that your lease will contain all of the terms and topics in this order, if at all. It may require a little digging and jumping around for you to determine whether something is or is not included in your lease.

In this chapter, we explain these common terms contained in many solar leases:

- The parties
- Description of the property
- Lease periods and payments
- Compensation for property damages
- Other compensation
- Easements
- Landowner obligations
- Property maintenance
- Termination
- Cleanup
- Miscellaneous legal clauses

Solar Power Purchase Agreement (PPA)

A solar power purchase agreement is a contract between an energy producer and a purchaser of energy. It outlines how much energy a purchaser will receive, how much the purchaser will pay for the electricity, and other important terms. Because a solar energy developer wants to ensure it has a purchaser of its energy, it often enters into a power purchase agreement that will last the same period of time as the solar operations phase.

The parties

A sometimes overlooked provision in a lease is the designation of the parties who are subject to the lease. The lease will refer to the solar energy developer as the lessee, tenant or company and the landowner as the "landlord," "lessor," or "owner." It's important that whoever holds the legal title to the property is the party designated in this way. If a husband and wife or other co-owners hold title to the property, both must approve and sign the lease. If a business entity holds the title, then the authorized representative must sign the lease on behalf of the business entity, but only after the entity has approved the lease according to its operating provisions. Likewise, if the land is held in a trust, the trustee must have the authority to enter into the lease according to the provisions of the trust and must sign the lease on behalf of the trust.

Description of the property

A solar lease must accurately describe the location and amount of property that is subject to the lease. While this may sound simple, inaccurate or vague descriptions can occur and can create uncertainty in the future. A landowner should review the description carefully before signing a lease to avoid being caught by surprise later when learning that the lease burdens more, less, or different land than the landowner thought.

One approach to describing the property is to include a **legal description** in the lease, often taken from the deed for the property. However, old legal descriptions may be outdated or may require revision if only a portion of the property is to be included in the lease. For these reasons, the parties may want a new **survey of the land**. In this case, the lease should state who will pay for the survey, what type of survey is acceptable, and when the survey must be completed. Many developers appear to prefer having a new legal survey of the lease property and will include this provision in the lease.

Another approach is to also include a **map or photograph** of the property that identifies the project's boundaries. This may be based upon the surveyor's work, a tax map, or an aerial photograph. This can be helpful because it shows clearly identifiable landmarks such as waterways or structures, allowing the landowner to visualize and verify the project boundaries.

Lease periods and payments

As we explained at the beginning of this chapter, the solar leasing arrangement has several distinct phases, referred to in the lease as periods or lease term. Note that not all leases use the same names for these periods, so a landowner might see different designations than the periods we describe. Less important than the name for a period is what occurs during the period, how long the period may last, and the amount of payment for the period. It is likely that the amount of the payments will vary for different periods of the lease. For example, the rental payment will likely be at its lowest value during an option period and at its highest amount when the facility is operating and producing energy. A landowner should also understand the entire length of time that the lease will be in place, determined by adding all of the periods together.

If a separate option to lease doesn't already exist, a lease will include an **option period**. This is the amount of time the developer has for determining whether the project will move forward. The option should contain provisions for how the developer must notify the landowner that the project will not proceed. Once a developer gives such notice, both the option period and the lease itself comes to an end. Some developers pay a lump sum amount for the option period, some pay a "bonus" or lump sum plus an additional annual rental payment, and some might pay only an annual rental amount.

Take a look at this example of option provisions in a solar lease:

> "Option Term: Five (5) years. Developer shall have the right to terminate the option.
> Initial Consideration: Within fifteen (15) days of execution of the Option, developer shall pay to owner $X as initial consideration.
> Option Payments: $X per acre per year shall be paid to Owner on an annual basis during the term of the Option."

A lease will also describe the **development or construction period**. This phase of the lease typically begins once the developer announces that the project will proceed, commonly referred to as "exercising the option." Some leases refer to one development period and include construction activities and one rental amount throughout the period, while others might separate the development and construction periods into two distinct terms with different time periods and payments for each. Here's an example from a solar lease that designates a development period:

> "Development Period: The period commencing at the end of the Option Period and expiring on the date three (3) years thereafter.
> Development Period Payments: $XX/acre/year."

The **solar operations period** is the longest period of time in the lease and probably the period that receives the most attention from a landowner as it represents a significant revenue stream over a long period of time. A lease usually describes this period as the time during which energy is being produced at the site. The rental amount is typically highest during this period, and will likely include an adjustment for inflation because the period may last for 20 years or more. The inflation adjustment may be tied to a measure like the Consumer Price Index, or may be a fixed rate to provide more certainty for the developer's project costs. Here is an example of an operations period provision:

> "Operations Period. The solar operations phase of the Project will be for a period of thirty (30) years from the date when at least one solar generating facility is installed and operational on the Premises.
> Operations Rent. During the Operations Period, an annual payment equal to the sum of $XXX per acre of land within the Solar Project Area and $XX per acre of Property outside of the Solar Project Area. The Operations Rent shall be adjusted upward annually by two and one-half percent (2.5%) each year (the "Inflation Adjustment Factor")."

A lease's **renewal** clause allows the developer to extend the lease for an additional amount of time. Renewals are at the option of the developer, and renewal automatically occurs if a developer provides notice of the renewal to the landowner. Certain lease terms could be renegotiable in a renewal situation, such as rental payment. The period for a renewal term varies among solar leases from about five to 20 years. Some leases include one set period of several years or more, and some allow up to two or three renewal periods. A renewal provision might read:

> "Developer will have the right at its option to extend the solar operations phase for up to two additional periods of five years. To exercise its option, Developer must deliver a written extension notice to the Owner at least six months prior to the expiration of the solar operations phase. Developer will have no right to extend the lease term beyond its two additional periods."

Finally, a lease may contain a **cleanup period**, which gives the solar energy developer a set period of time to remove the equipment and restore the land. The typical time allotted for cleanup is around 12 months, depending upon the project size. More on cleanup later.

Adding all of the periods in the lease term together will clarify the **total length** of the leasing arrangement. In the above examples, the option period could last for up to five years, the development period would last for three years, the solar operations period would be in place for 30 years, and there is a possibility of two five-year renewals. The total period of time that the land could be subject to the lease would be 48 years.

Compensation for property damages

A lease should also include other payments that compensate a landowner for damages that occur to the landowner's property over the lifetime of the lease. Of particular importance to farmland owners is the possibility of damage to the farm's **drainage system**. Moving equipment, building roads and laydown yards, installing cable trenches, installing posts, and other similar construction activities could interfere with or damage both subsurface drainage tiles and surface drainage ways. A lease should specify how a developer will address these situations, either by compensating the landowner or repairing the problem. Compensation measures could address both the drainage infrastructure and harm to crops or property due to a drainage interference. If a developer is to make repairs, a lease may include guidelines for the repairs. To avoid the possibility of harm to drainage infrastructure, a lease might require a landowner to provide a map to the developer showing all drainage improvements on the property.

Compensation for **crop damage** is another unique issue of concern for farmland owners, as this example illustrates:

> "During initial construction, Developer shall pay Owner for damages to crops on a per acre basis (prorated for fractional portions of an acre), for any and all portions of the Premises that are taken out of commercial crop production during the construction of the Solar Facilities and any and all crops that are removed or damaged as a direct result of Developer's construction and operations."

Harm to crops first arise if a developer decides to begin construction activities when crops are still in the ground. Damages to crops might also inadvertently occur when maintenance and similar activities are carried out throughout the lease period. In these situations, a lease can require a developer to compensate the landowner for crop losses. It's important, however, that the lease address how to determine the value of an unharvested crop. Common factors to consider are the location, average yield in the area, and predicted price that would have been paid for the crop. Each lease may use a slightly different calculation, or at least involve different definition for such factors. Here's an example of a crop damages calculation provision:

> "Crop damage will equal the amount of damaged acres (based upon Owner's reasonable estimate as agreed upon by Developer's representative) multiplied by the average yield in the county where the property is located multiplied by Price multiplied by 1.1.
>
> The average yield in the county where the property is located shall be based on the average yield for the latest three years in the county as published by the National Agricultural Statistics Service.
>
> The price shall be based on the respective commodity's futures price for December delivery with the Chicago Board of Trade as of the close of the 15th day of the month during which the damage occurs."

In the above example, crop damages equal Acres X Average county yield X Price X Multiplier of 1.1. The farmland owner should understand these term, and what they mean for crop damage payments.

For example, *acres* refers to the volume of land affected by the developer's activity and taken out of agricultural production. In the example, acreage is based on a reasonable estimate by the landowner and the developer has the right to challenge this acreage estimate.

The *average crop yield* for the county refers to the expected volume per acre of crop that would have been produced had this crop made it to harvest. It's common to follow an approach like the example and average the yield over several years. A lease will also identify a data source for yields, such as the National Agricultural Statistics Services.

The *price* for the crop is likely to cause the most confusion for farmland owners. The simplest method is to use an objective benchmark such as a market commodity price for a set day in the month during which the damage occurs. The *price* is not determined by the market value of the crop on the day it was damaged, but by the market value on the specified day in the month the damage occurred.

A crop damages calculation might also include a multiplier that serves as a bonus payment to compensate the farmland owner beyond the calculated fair market value of the lost crop alone. The multiplier recognizes that the crop could have been worth more in reality, or may serve as an act of good faith, or an apology for the landowner's loss of sweat equity in the crop.

Other compensation

Some solar energy developers will offer to cover **expert expenses** incurred by the farmland owner in conferring with an attorney, accountant, or other advisor about the solar lease. The total amount covered by the developer may be capped at a certain dollar amount, so the landowner will want to ensure that the cap provides enough funds to seek adequate counsel for an informed decision.

A lease can also provide compensation for removing the land from a **differential property tax assessment program** such as Ohio's Current Agricultural Use Valuation program. This provision should cover the entire amount of the "recoupment fee" that the landowner must pay for converting the land and removing it from the program. Likewise, a lease can reimburse the landowner for any **conservation program** penalties resulting from the withdrawal of lands from government programs. We discuss these issues in more detail in Chapter 2 of this guide.

Easements

An **easement** is a legal right to use the property of another. A typical solar lease includes multiple easements that grant the developer different rights to use different parts of the property for different purposes. It's important for a landowner to know which type of easement exists on which part of the property, and the time period or extent of each easement.

Most solar energy leases contain the following types of easements:

- Construction easement
- Access easement
- Transmission easement
- "Nuisance" easement
- Solar easement
- Catch-all easement

A **construction easement** provides the solar energy developer with the right to access the land for the purposes of preparing the ground for development and installing the solar equipment. In addition to constructing the solar panel system, construction activities are also necessary for temporary and permanent access roads, "laydown areas" used for staging the equipment until it is installed, and areas for office trailers, parking, and employee activities. Since such activities involve heavy machinery and gravel yards, landowners should consider the location and impact of the construction activities that are granted by the construction easement. Negotiation might be necessary, especially if the landowner has future plans for construction areas.

An **access easement** grants the developer the right to cross the landowner's property to

> "Owner grants an easement over, across, and on the Premises for ingress to and egress from the Solar Facilities by means of any existing roads and lanes, or by such route or routes as the Developer may construct from time to time at its discretion. Such right will include the right to improve existing roads or lanes, or to build new roads."

access the solar energy facility. Here's an example:

This provision allows the solar energy developer a number of important rights. It grants a right to use existing roads, lanes, and access points on the property and also lets the developer improve those paths. The example doesn't define the extent of such "improvements," so a landowner may want clarification on this issue. We can assume that improvements could include laying down gravel, installing drainage ways, constructing a bridge, or other measures "reasonably necessary" for access. The easement also allows a developer to create a new road or lane on the property. Sometimes this provision will include language that gives the developer sole discretion in determining the new routes. If there are areas that a landowner does not want to be developed as new roads or lanes or if the landowner wants to have a voice in the location of the roads, the landowner must negotiate such terms so that they are included in the lease.

In addition to getting its people and equipment to and from the solar facility, a developer needs to get its power to the grid. A **transmission easement** grants the developer the right to install equipment and power lines for transmission purposes. This easement can include the installation of power lines, poles, or channels above, on, or beneath other parts of the landowner's property that are beyond the solar project location, as determined by the developer. The easement also allows the developer to access the transmission areas for the duration of the project and make repairs or improvements over time. As with the other easements, a landowner must negotiate any exceptions or parameters to these rights before signing the lease. A transmission easement provision may look like this:

> "Owner grants an exclusive easement on, over, and across the Property for one or more line or lines of poles and/or towers, with such wires and cables as from time to time are suspended therefrom, and/or overhand and/or underground wires and cables, for the transmission and/or collection of electrical energy and/or for communications purposes, along with all necessary and proper foundations, footings, towers, poles, cross arms, guy lines and anchors and other appliances and fixtures for use in connection with said towers, wires, and cables."

The development, construction and operation of a solar facility can create annoyances or inconveniences to landowners, such as noise, dust, traffic, vibrations of the earth, and sun glare. In anticipation of these potential impacts, solar lease agreements will include a **nuisance easement**. This easement prevents the landowner from bringing a nuisance claim against the developer. Note that the easement does not apply to neighbors who may believe that the activities create a nuisance since the neighbors are not a party to the contract and are not bound by its terms. Here's a typical nuisance easement:

> "Owner grants an easement and waives any claim arising in nuisance for conditions common to solar energy projects, such as construction activities, maintenance activities, noise originating from equipment, reflective glare, and other nuisances."

A solar facility needs one crucial component: access to the sun. The all-important **solar easement** ensures that the solar facilities can receive sunlight without interference from the landowner, as this example illustrates:

> "Owner hereby grants and conveys to Company an exclusive easement on, over and across the Premises for the open and unobstructed access to the sun to any Solar Facilities on any of the Project Properties and to ensure adequate exposure of the Solar Facilities to the sun."

This provision may apply to all the land owned by the landowner, regardless of proximity to the solar energy facility. It might also specifically prohibit the landowner from placing any new trees, buildings and other improvements on the property in a way that the developer believes will interfere with solar access.

Be aware that a solar lease agreement might also include a **catch-all easement** that aims to maximize the developer's right to use the land. These provisions are often broad and vague, which could be problematic for a landowner.

Landowner obligations

The lease is not all about the solar energy developer. The farmland owner also has obligations and rights under the lease agreement. Some of these are for the benefit of the solar energy developer, but many benefit the farmland owner. Four common lease terms obligate the landowner to act, or not act, in a certain manner. While each may only be a sentence or two long, they include important restrictions on what a landowner can or cannot do in regards to the leasing arrangement.

A **non-interference** provision is a promise by the landowner not to interfere with the solar energy developer's rights and easements. A broad non-interference provision will state that a landowner cannot impede the solar energy developer's ability to construct, operate, and do anything it is allowed to do under the agreement.

An **exclusivity provision** guarantees the developer's right to sole possession of the lease property. An exclusivity provision might also prohibit the landowner from allowing other solar developments on the landowner's premises, such as this example:

> "Owner shall in no event construct or allow others to construct any solar energy facility or similar project on the Premises."

A **quiet enjoyment provision** allows the solar energy developer to peacefully enjoy all of its rights under the agreement and may explicitly state that the landowner promises

not to hinder or interrupt the solar energy developer's rights or allow any other party to do so for the duration of the lease agreement. Such a provision can force the landowner to defend the developer's rights in the property against any other parties.

We mentioned **confidentiality clauses** in Chapter 2 when we explained the Option to Lease document. A solar lease will also usually include a confidentiality provision that prohibits the landowner from sharing certain information contained in the lease. Many confidentiality provisions begin by protecting the financial and payment terms of the lease, which keeps one landowner from knowing how much another landowner will receive for a solar lease. A confidentiality clause might also cover methods and technology that the solar energy developer believes is its proprietary information. Take this example of a confidentiality clause:

> "Owner shall maintain in the strictest confidence all information pertaining to the financial terms and payments under this Lease, Developer's site or product design, methods of operation, methods of construction, power production, and other such information deemed proprietary by the Developer."

A confidentiality provision also usually includes termination and expiration language that continues confidentiality beyond the lease period. Take this example:

> "The provisions of this confidentiality clause shall survive the termination or expiration of this Lease."

This example does not stipulate how long beyond the end of the lease that the confidentiality clause will last. In such a case courts usually conclude that the clause lasts for "a reasonable time."

Many leases also address **owner improvements**, and what happens when an owner's improvements interfere with the project's open access to the sun. Often lease agreements will allow existing structures and trees to remain, but either require developer permission for future improvements or impose certain criteria that the landowner must follow to build a new structure nearby. Landowners may be able to negotiate for an improvement term that requires the solar energy developer to consent to an owner's request so long as the improvement does not negatively impact the solar facility's access to sun. Farmland owners who want to protect certain structures or guarantee the ability to add structures in the future want to read these provisions carefully to ensure that the farmland owner's needs are addressed.

Once the solar energy development has been constructed, landowners will retain the right to use the access easements granted to the solar energy developer. However, the landowner cannot interfere with the solar energy developer's use of the easement path.

Property maintenance

A solar lease should address who will maintain the property in and around the solar project site. Often, the solar energy developer will be responsible for mowing, removing weeds, keeping brush under control, and maintaining access points.

Developers prefer to keep this responsibility so that only its personnel will be near the project site. However, the lack of clear standards for property maintenance in a lease could become a point of contention.

Consider **noxious weeds**. In Ohio, noxious weeds are invasive or harmful plants designated by the Ohio Department of Agriculture to pose a risk to humans, ecosystems, or agricultural crops and livestock. Landowners have a legal duty to destroy noxious weeds located on their property after proper notification by the township. Failure to remove noxious weeds can result in government action and assessment of the costs of the removal on the landowner's property taxes. This type of problem could be avoided if the lease explains which party bears the responsibility to maintain the property. The lease can spell out who is responsible for **mowing the grass and weeds**, which is typically the developer, and outline what happens when the party responsible does not meet its obligations.

Some developers have interest in alternative solutions for maintaining the vegetation around a solar project site. A lease might allow the landowner to **plant crops** that are compatible to the site and will not interfere with the panels, such as alfalfa and clover. A lease might also allow **sheep** to graze among the solar panels. Unlike goats, which try to climb onto solar panels, and cows, which run into or rub up against the panels, sheep pose no risk of harm to a solar energy site.

Another option that might appear in a lease is to create **pollinator habitats** in the solar project area. This type of arrangement can

address who is responsible for planting and maintaining the habitat, and what to do if or when noxious weeds grow within the pollinator habitat area.

Termination

It's possible that a solar lease will not make it to the end of its natural life and one or more parties will find it necessary to **terminate the agreement**. Any thorough legal document or contract will outline when parties may permissibly terminate the agreement early, and what happens when they do. Solar leases commonly grant the developer the right to terminate the lease upon written notice to the landowner, with the notice taking effect a month or so after. On the other hand, farmland owners often may only terminate the solar lease in the event that the solar energy developer commits a material default of the lease, such as habitual non-payment of rent.

Cleanup

A solar lease will likely address two types of cleanup situations: post-construction and post-project cleanup. **Post-construction cleanup** addresses the solar energy developer's duty to restore the land once the solar panels and all other equipment have been installed. Here's an example:

> "After the construction of the Solar Facilities, the Developer will remove any construction debris and will restore the portions of the Premises not occupied by the Solar Facilities to substantially the same condition that such portions of the Premises were in prior to the construction of the Solar Facilities."

A provision like this requires the solar energy developer to put the property in "substantially the same condition" as before construction began. This could require leveling of land, removal of construction materials, or reinstalling a fence that had to be removed. A landowner who wants the land restored in a certain manner after the solar panels have been installed should specify what he or she expects. This could include taking pictures of the land before construction.

Post-project cleanup deals with the solar energy developer's duty to restore the land once the lease has ended, whether due to expiration, termination, or otherwise. The clause should outline when and how the developer will remove all of the solar facility from the landowner's property. Take a look at this post-project cleanup clause:

> "At the end of the Term, including upon any termination of the Lease, the Developer will remove all of its Solar Facilities within twelve months from the date the Term expires or the Lease terminates."

The example gives the developer a set time frame to remove its solar panels and equipment from the property: A lease might pair this type of clause with an express easement that grants the solar energy developer a right to continue to access the land during the cleanup time frame. A lease should lay out what happens if the solar energy company fails to remove its equipment. For example, a lease might grant the landowner permission to clear the equipment and seek reimbursement from the solar energy developer for the cost of removing the equipment.

An important provision for the landowner in regards to cleanup is a requirement for a developer to **escrow** funds as security to cover the cost of cleanup. The funds can be placed into an escrow account or an investment grade security. The landowner would likely only receive the funds if the solar energy developer fails to remove its equipment as scheduled.

Also in the landowner's best interest would be standards for **restoring the land** after removal of the equipment. If the solar energy developer installed foundations to support the solar panels or other equipment, will they be removed? Will they be removed entirely, or only to a certain depth? Did the construction affect drainage tiles? Does the landowner want the solar energy developer to leave improvements such as gates and fences or roads? These are all important issues that a lease can address, with pictures and descriptions of the property to provide guidance.

Miscellaneous legal clauses

As with any legal document, a solar lease will include common "boilerplate" terms. A **warranty of title** clause is a promise by the landowner that he or she is the true owner of the property and has the right to encumber the property. This clause should include an exception for previously existing encumbrances that are recorded or disclosed by the landowner, which would prevent a developer from terminating the lease by claiming that a landowner does not have clean title to the property.

A **hazardous materials** clause requires the farmland owner to certify that the land is in compliance with all applicable environmental laws and regulations, and that the landowner will continue to comply with all required environmental laws through the duration of the lease. As a companion duty, the developer also promises to comply with all environmental laws once it takes possession of the property. These companion promises relate to an often included indemnity provision that requires the party at fault to take responsibility for any financial, restoration, or other penalties.

Indemnity clauses aim to place legal liability on the party that has possession and control of a condition that causes harm. A solar lease will place liability for harm resulting from the solar project on the developer, while maintaining the property owner's liability if a person is harmed on other property areas and conditions that under the landowner's control.

A **condemnation** or eminent domain clause addresses what happens if the government to seizes some or all of the property its use. The clause should address whether a developer has to stop paying rent, and how to divide a condemnation award. The developer may attempt to claim all of a condemnation award as compensation for its improvements, loss of revenue, relocation costs, and lost value of its project. A more equitable split of a condemnation award would address both the developer's investment and the value of the real estate taken from the landowner.

Force majeure is common in many legal documents and addresses uncontrollable and unforeseeable acts of God. In the solar leasing context, a force majeure provision may allow the solar energy developer to suspend rental payments when an act of God prevents it from operating on the property or complying with any provision in the lease. The clause might also lengthen the term of the lease by the amount of time that the solar energy developer could not operate. This would mean that the solar energy developer would not pay rent during its down time and the lease term would automatically extend by the amount of the down time.

Lender protections frequently arise in solar leases, and are not usually negotiable. A developer's lenders may require guarantees that their financial investments in the project will be protected. Such clauses in the lease assure that the developer's lenders can recoup investments if there is a default by foreclosure or some other legal means.

Arbitration is a popular clause in many legal documents today. Arbitration is an out of court process that relies on one or more arbitrators to serve as decision makers for a dispute between two parties. An arbitration decision is binding on the parties and is enforceable in court. Be aware that some arbitration clauses prohibit a party from appealing the arbitration decision to a court of law, meaning that the landowner does not have another chance at resolving the problem. Look for a clause that does allow for an appeal and also requires mutual consent by the parties to use a particular arbitrator or arbitration service, which gives the landowner a say in who will be making a decision.

A **jury trial waiver** would prevent a landowner from requesting a trial by jury if a dispute arises with the solar energy developer. These clauses operate on the premise that a jury is swayed by emotional arguments, favors local residents, and has more discretion than a judge in applying the law, factors that tend to benefit a landowner more than a company. For these reasons, a developer may seek to have the landowner waive the right to a jury trial and have a judge make a decision. Landowner attorneys commonly seek to remove this clause and keep a jury trial as an option in the event of a dispute that goes to a court of law.

A **damages waiver** is an attempt to avoid compensating for any harm that results from a party's actions. In the solar leasing context, a damages waiver would run contrary to other provisions discussed earlier for damages to property, drainage, and crops, so should not be included in a solar lease.

Choice of law and choice of venue clauses are in many legal documents to provide predictability about where a dispute will be heard. If a legal dispute arises, these clauses pre-determine the location and state law that will apply to resolving the dispute. Such clauses are common when the parties are from different states. A landowner in a solar leasing situation will want to ensure that the disputes would be heard in the state where the leased property exists.

Attorney fee clauses take on a number of shapes and sizes, but are meant to shift the costs of litigating a dispute on one party or another. Beware of a solar lease that requires a farmland owner to pay the legal fees of the developer if any disputes result in legal action.

Resources

"Farmers' Guide to Solar and Wind Energy in Minnesota," FARMERS' LEGAL ACTION GROUP, INC. (2019) http://www.flaginc.org/wp-content/uploads/2019/04/Farmers%E2%80%99-Guide-to-Solar-and-Wind-Energy-in-Minnesota-April-2019.pdf.

Shannon Ferrell, "Solar Leasing for Agricultural Lands," National Agricultural Law Center (April 4, 2018) [webinar] https://nationalaglawcenter.org/consortium/webinars/solarleasing/.

Shannon Ferrell, "Understanding Solar Energy Agreements," NATIONAL AGRICULTURAL LAW CENTER (2019).

"Guide to Land Leases for Solar," SOLAR ENERGY INDUSTRIES ASSOCIATION (2016).

Solar Power Purchase Agreements," *Green Power Partnership*, U.S. EPA, https://www.epa.gov/greenpower/solar-power-purchase-agreements.

Final words on the solar lease

A solar lease details the relationship between the solar energy developer and the landowner. Just as every relationship and piece of property is unique, each lease will be unique. This chapter examines a number of terms commonly included in a solar lease, but a lease may contain additional terms or may not include all of the terms covered here.

Understanding a lease document may take time, patience, and a willingness to ask questions. Consulting an attorney with experience in agriculture or solar energy leasing would be a wise step.

On a final note, entering into a solar lease means entering into a long-term relationship with a solar energy developer. A good working relationship requires good communication, and also a good understanding of the parameters of the relationship. The lease provides those parameters.

5 The Farmland Owner's Solar Leasing Checklist

Entering into a long-term lease agreement for your land is a big decision. Whether you're just starting to think about solar leasing on your land or already have a lease waiting for your signature on your kitchen table, the best time to make sure that a solar lease is in your best interest is now.

The following checklist condenses the information from this guide to help you remember things to do, issues to consider, people to consult, and questions to ask before and after signing a lease. The checklist is not an exclusive list, but is a starting point to help you get organized as you consider whether and how to lease your farmland for solar energy development.

1. Assemble your team of experts. You do not have to make an important decision like this on your own. From family members to your attorney and accountant, others can help you make an informed decision. Include the following in your team:

___ Attorney
___ Accountant
___ Insurance provider
___ Lender
___ Extension educator
___ Family
___ Business partners
___ Neighbors

2. Research the solar energy developer. It's always a good idea to know who you're dealing with in a business transaction. Research the developer who's contacted you about a solar lease. Does the developer have a good reputation with other leasing landowners, the Better Business Bureau, Public Utilities Commission, and Attorney General? Does it have other solar energy projects pending or in existence, and any problems with existing projects? Your own research and your team of experts can help you answer these questions.

3. Talk to your family. A solar lease can take a lot of land for a long period of time. Consider the following questions to make sure that you understand what this lease would do to your land, your family, and your plans for the future.

- How would the land and farm operation be impacted by this lease?
- What are the family's long term goals for the farm, and does this lease interfere with or support those goals?
- How does the family feel about not being able to use the land for a long period of time?
- How does the family feel about seeing and living with a large scale solar development on the farm?

4. Seek out Extension experts. OSU Extension and other state Extension organizations have expertise that can help guide you in the decision making process. Check out OSU Extension's Energize Ohio website, go.osu.edu/utility solar, for information about solar energy. A few questions Extension experts might help with include:

- Is there any data on rental values and crop damage payments in my area for solar leases?
- Are you familiar with this solar energy developer or its reputation?
- Can you connect me with other landowners in the area who have or are considering solar leasing?

5. Read all documents carefully and with professional assistance. The documents a solar developer gives to you can be legally binding once you sign them. Don't sign anything you don't understand. Make sure your team of professionals know about these documents, and let them help you review them.

6. Consider the terms of the solar lease. On the first read through, you don't have to understand everything in the lease. Note anything you don't understand so that you can ask questions and gain a clear understanding of what the lease proposes. Specific terms in the lease to review include these:

___ Accurate description of the property and parties
___ The term of each lease period, when each period begins and ends, and the total length of the lease
___ Whether renewal is permitted, how to renew, and length of renewal periods
___ Rental payments, inflation adjustments, and how each will be calculated
___ Whether farming and similar activities can continue prior to construction of the facility
___ Who pays for penalties for withdrawal of land from CAUV and government programs and termination of farmland leases
___ How to deal with existing mortgages
___ How damages to crops, improvements and drainage will be addressed
___ The types and extent of easements granted
___ Obligations of the landowner, such as non-interference and confidentiality requirements
___ Post-construction clean up obligations
___ Limitations on owner improvements such as new buildings, fences and tree plantings
___ Responsibility for maintaining vegetation, weeds, access points, driveways and fences
___ What happens if either party terminates early
___ Cleanup and restoration of the property at lease end, including funds for cleanup
___ Landowner's hunting and recreation rights
___ Potential interferences with mineral rights
___ Indemnity and insurance provisions
___ How conflicts will be resolved, including arbitration and waiver of jury trial clauses
___ How weather and acts of God affect obligations
___ Handling of proceeds from eminent domain actions
___ Payment of attorney fees if disputes arise

7. Meet the solar energy developer. Entering into a solar lease means entering into a long term business relationship with a solar energy developer. It's important to determine early on what kind of business relationship you would have and to review important lease provisions with the developer. The following questions can help.

- How long has your company operated in Ohio?
- How many similar projects have you completed?
- Can you refer me to other landowners that your company has partnered with?
- What is your timeline for this project?
- Do you intend to sell the solar facility after it's constructed?
- Will your company cover my expenses to have an attorney review the lease?
- What ingress and egress paths will be needed for construction and post-construction?
- How frequently will your agent(s) be on site?

- What will my land look like after the project has ended and been cleaned up?
- What are your procedures for cleanup?
- How do you handle property maintenance, and are there opportunities for grazing or haying on the site?
- What happens if or when your company causes damage to my crops?
- What happens if or when your company causes damage to my drainage tile?
- Will you notify me and neighbors when construction will begin?
- Do you take precautions to protect nearby lands from harm during construction, such as organic farms and home businesses?
- How can I contact your company?
- How quickly can I expect a response to a question or concern?
- Will you add verbal promises to the written lease?

8. Review the lease with your attorney. An attorney can ensure that you understand the lease. An attorney with experience in advising agricultural clients may have additional insights into provisions farmland owners should negotiate to include in their leases, such as crop damages and land use rights.

- How many solar energy leases have you reviewed?
- How much do you charge to review and negotiate the lease?
- Are you familiar with this solar energy developer or its reputation?
- Can you answer these specific questions I have about the lease provisions?
- What protections for me, my family and my farm are missing from the lease?
- How does this lease affect my estate plan and farm transition plan?
- How does this lease affect my long-term health care plan or options for health care?
- How does this lease affect my property taxes, government programs, and existing farm leases?

9. Check in with your accountant. Your accountant is your numbers expert who can analyze financial implications and consequences. Ask the following questions:

- What will the lease pay me for rental, and are the damages compensations calculated fairly?
- What are the tax consequences of signing this lease?

10. Consult with your insurance provider. Leases almost always include provisions about how much liability insurance each party must carry. Ask your insurance provider to determine whether you need additional coverage, and how much that will cost.

- Do I have the type of liability coverage that this lease requires me to have?
- What type and level of coverage do you recommend for this situation?

11. Talk with your neighbors. Neighbors will be impacted by the construction and long-term existence of a utility-scale solar development in the neighborhood. Some neighbors, such as organic farmers or home-based businesses, may have needs for special protections. Others may react negatively to a proposed solar development. Knowing your neighbor's views and concerns can help you determine whether and how to proceed with a solar lease.

12. Review the survey or aerial maps provided by the solar energy developer or its surveyor. It's important to know what land would be affected by a proposed lease. If a survey has not been conducted, then you may need to contact a surveyor to obtain an accurate understanding of the land that would be affected by the lease.

13. Ensure that you have good title. Solar energy developers prefer to lease property that is free and clear of third party burdens such as liens and similar legal interests. Conduct a search of your property records online or at your county land records office to ensure that no surprise encumbrances have been recorded.

14. Re-read your documents. By now you should have a firm grasp of what your lease and other documents say, what signing the documents would mean for you, your family, farm, and community. If you read something again and have more questions, be sure to find an answer before signing.

If you do sign a lease

Your efforts don't end with signing a solar lease, as you've now begun a long term business relationship. Below are a few suggestions for next steps to take after entering into a solar lease. We recommend that you continue working with your professional team to identify other long-term needs for your leasing situation.

1. Store all documents and agreements in a secure location. Maintain both a hard copy and a digital copy of all documents associated with the solar lease.

2. Set up accounts and procedures for rental payments. Keep records to ensure that you receive all payments due under the lease.

3. Document any instances of property damage or other violations of the lease agreement. If the developer or its agent causes unauthorized damage, document when and how the damage occurred and the extent of the damage. Photographs or videos serve as important pieces of evidence.

4. Track your option period. If the developer doesn't notify you or begin construction by the end of the option period, the lease likely terminates. Know when the option period ends and you'll know if the lease continues or terminates.

5. Contact the developer for any permissions as required in the lease. Your lease may have included provisions requiring that you seek permission when engaging in certain activities like hunting, building structures, or planting trees near the project site. If permission is required under the lease, engaging in that activity without such permission would constitute a breach of contract.

6. Follow the dispute procedures in the lease. If you have a dispute about the lease, make sure that you refer to the lease to ascertain how you are to handle a dispute. If you don't follow the procedures outlined in the lease, you could lose certain rights to continue to dispute the issue.