Solar in PA
A Developer’s Perspective

Presented by:
Phillip A. Guerra, J.D., CPL
Disclaimer

The opinions expressed in this oral presentation and on the following slides are solely those of Phillip A. Guerra, J.D., CPL (hereinafter, “author/presenter”), and not necessarily the opinion of ForeFront Power, LLC, or any affiliate of ForeFront Power, LLC. These materials have been prepared solely for educational purposes, reflect only the personal views of the author/presenter, and are not to be considered legal advice. Thus, the author/presenter and ForeFront Power, LLC, or any affiliate of ForeFront Power, LLC, cannot be bound either philosophically or as representatives of their various present and future customers, clients and/or partners to the comments expressed in these materials. While every attempt was made to ensure that these materials are accurate, errors or omissions may be contained therein, for which any liability is disclaimed. This material was solely prepared by and is owned by the author, Phillip A. Guerra, J.D., CPL, not ForeFront Power, LLC, or any affiliate of ForeFront Power, LLC. For any copyright questions, inquiries, or infringement claims, please contact Phillip A. Guerra, J.D., CPL at pguerra3705@gmail.com.
Solar in PA
Types of Solar Projects
Types of Solar Projects

• **Behind-the-meter (BTM)** – a system that generates power/electricity that can be used *on-site* without passing through a meter.¹

• **Front-of-the-meter (FTM)** – a system that generates power/electricity to any location *off-site* that must pass through the meter before reaching the end-user.²

¹² https://news.energysage.com/behind-the-meter-overview/
Types of Solar Projects

- What type of solar project is being proposed?
  - BTM or FTM?
    - Community solar (FTM)
    - Residential (BTM)
    - Utility-scale (FTM)
  - What is the total acreage of the proposed project?
Solar in PA
Selecting a Potential Site
Selecting a Potential Site

• Land criteria:\(^6\)
  • Proximity to substation
  • Proximity to power/electric lines
  • No wetlands
  • No floodplains
  • Avoid bad topography (e.g., slope 7\% or less)
  • Avoid shading

\(^6\) Educational purposes only; land criteria for a solar projects may vary from project to project, state to state; solar developer’s risk tolerance may vary too
Selecting a Potential Site

• Land criteria: \(^7\)

  • Is there an airport within two miles?
  • Is there a cell tower on the property?
  • Avoid crossing over a railroad easement
  • Avoid proximity to cemeteries, golf courses, residential neighborhoods

\(^7\) Educational purposes only; land criteria for a solar projects may vary from project to project, state to state; solar developer’s risk tolerance may vary too
Selecting a Potential Site

• Land criteria (specific to Pennsylvania):⁸
  • Is the property in Clean and Green?⁹
  • Is there a conservation easement on the property?
  • Is there oil and gas activity in the area?¹⁰

---

⁸ Educational purposes only; land criteria for a solar projects may vary from project to project, state to state; solar developer’s risk tolerance may vary too
⁹ Agriculture.pa.gov/Plants_Land_Water/farmland/clean/Pages/default.aspx
¹⁰ Dep.pa.gov
Substation
Electric Lines
Topography
Railroad
Solar in PA
Structuring Your Agreement
Types of Solar Projects

• What type of agreement is being proposed – lease, easement, or license?

• Can the solar developer finance the project?
<table>
<thead>
<tr>
<th></th>
<th>License</th>
<th>Easement</th>
<th>Lease</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Right</strong></td>
<td>Use</td>
<td>Possessory or non-possessory</td>
<td>Possessory</td>
</tr>
<tr>
<td><strong>Real Property Interest</strong></td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Revocable</strong></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td><strong>Contract in Writing</strong></td>
<td>Not required</td>
<td>Required</td>
<td>Required</td>
</tr>
<tr>
<td><strong>Financeable</strong></td>
<td>Maybe</td>
<td>Typically, yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Insurable</strong></td>
<td>Maybe</td>
<td>Typically, yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Assignable</strong></td>
<td>Maybe</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Type of Solar Projects</strong></td>
<td>Canopy</td>
<td>Canopy, Rooftop</td>
<td>Ground Mount, Rooftop</td>
</tr>
</tbody>
</table>
Structuring Your Agreement

• For a FTM ground mount solar project, most developers will want the landowner to sign a lease.
Structuring Your Agreement

1. Option to lease agreement with attached term sheet.
2. Option to lease agreement with attached lease.
3. Lease agreement with included option period.
OPTION TO LEASE AGREEMENT
[Ground Mounted Solar]

THIS OPTION TO LEASE AGREEMENT (this “Agreement”) is entered into this ___ day of ______________, __________ (the “Effective Date”), by and between

_____________________________ (the “Lessor”), and

_____________________________ (the “Lessee”).

WITNESSETH:

A. Lessor is the owner of that certain property located in ______________ County, and located at ______________________, as more particularly described on Exhibit A (the “Property”).

B. Lessee desires to obtain an option to lease up to a maximum of approximately ______________________ acres of the Property as conceptually shown on Exhibit B attached hereto and made a part hereof (the “Leased Premises”) for the construction, installation, operation and maintenance thereof of a solar farm and all related generation, storage, transmission and interconnection facilities (the “Energy Facilities”).

C. Lessor has agreed to grant Lessee an option to lease the Leased Premises for such purposes, subject to the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements herein contained, and intending to be legally bound hereby, Lessor and Lessee hereby agree as follows:

1. Grant of Option. Lessor hereby grants to Lessee the exclusive right and option to lease the Leased Premises, subject to the terms and conditions hereinafter set forth (the “Option to Lease”).

Basic Lease Terms

Lease Term: An initial term of 30 years, with two renewal terms of 5 years each.

Annual Rent: Initially, $ __________, with ___% increases every 5 years thereafter.

Ancillary Rights: During the term of the Lease, the Lessee shall have the right, at no additional cost, to use existing roads on the Property and to use a portion of the Property for a construction laydown area during the initial construction, major maintenance activities and/or the removal of the Energy Facilities. Lessor shall also, grant Lessee: (A) an interconnection easement; (B) an easement for transmission, distribution and collection cables (including fiber optic cables), conduits, wires and/or lines which carry electrical energy to and/or from the Leased Premises; and (C) an easement for communications cables (including fiber optic cables), conduits, wires and/or lines which carry communications of any nature to and from the Leased Premises.

Ownership Rights: Lessee shall be the sole owner of the Energy Facilities and the energy output produced thereby, as well as any and all tax or other financial benefits associated with the Leased Premises.

EXHIBIT B – TERM SHEET

Basic Lease Terms

Lease Term: An initial term of 30 years, with two renewal terms of 5 years each.

Annual Rent: Initially, $ __________, with ___% increases every 5 years thereafter.

Ancillary Rights: During the term of the Lease, the Lessee shall have the right, at no additional cost, to use existing roads on the Property and to use a portion of the Property for a construction laydown area during the initial construction, major maintenance activities and/or the removal of the Energy Facilities. Lessor shall also, grant Lessee: (A) an interconnection easement; (B) an easement for transmission, distribution and collection cables (including fiber optic cables), conduits, wires and/or lines which carry electrical energy to and/or from the Leased Premises; and (C) an easement for communications cables (including fiber optic cables), conduits, wires and/or lines which carry communications of any nature to and from the Leased Premises.
OPTION TO LEASE AGREEMENT

THIS OPTION TO LEASE AGREEMENT (this “Agreement”) is entered into this day of , 20__ (the “Effective Date”), by and between ("Lessor"), and ("Lessee").

WITNESSETH:

A. Lessor is the owner of that certain property located in , County, and located at as more particularly described on Exhibit A (the “Property”).

B. Lessee desires to obtain an option to lease up to a maximum of approximately contiguous acres of the Property as conceptually shown on Exhibit B attached hereto and made a part hereof (the “Leased Premises”) for the construction, installation, operation and maintenance thereof of a solar farm and all related generation, storage, transmission and interconnection facilities (the “Energy Facilities”).

C. Lessee has agreed to grant Lessee an option to lease the Leased Premises for such purposes, subject to the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements herein contained, and intending to be legally bound hereby, Lessor and Lessee hereby agree as follows:

Grant of Option. Lessor hereby grants to Lessee the exclusive right and option to lease the Leased Premises, subject to the terms and conditions hereinafter set forth (the "Option to Lease").

SOLAR GROUND LEASE AGREEMENT

THIS SOLAR GROUND LEASE AGREEMENT (this “Lease”) is made and entered into as of the ___ day of , 20__ (the “Effective Date”), by and between ("Lessor") and ("Tenant").

WITNESSETH:

In consideration of Ten and No/100 Dollars ($10.00) to be paid from Tenant to Lessor on or before the date that is thirty (30) business days after the Effective Date and the rent to be paid to Lessor by Tenant, as hereinafter provided, and of the covenants and agreements upon the part of Lessor and Tenant to be kept and performed, Lessor hereby leases to Tenant and Tenant leases from Lessor, containing approximately ___ acres, located at County, and in substantially the location set forth on Exhibit A attached hereto, together with all appurtenances, easements, servitudes, rights and privileges pertaining to the property and the improvements to be constructed by Tenant and in the future located thereon (the “Premises”), to be occupied and used upon the terms and conditions set forth herein (the Premises are a portion of that certain property with Tax Parcel No. and containing approximately ___ acres, and located in substantially the location shown on Exhibit B attached hereto and by this reference made a part hereof (the “Land”).


(a) The term of this Lease (including any extensions or renewals, the “Term”) shall commence on the Effective Date and shall end at 11:59 P.M. local time on the date that is three hundred sixty (360) months after the Rent Commencement Date (as hereinafter defined) (the “Expiration Date”), unless extended or sooner terminated as herein provided, provided that if the Rent Commencement Date is other than the first day of a calendar month, the Term shall be extended automatically until 11:59 P.M. local time on the last day of the calendar month in which the Term would otherwise expire.
LEASE W/ OPTION PERIOD

THIS OPTION TO LEASE AGREEMENT (this “Agreement”) is entered into this day of ______________ (the “Effective Date”), by and between __________________________ (“Lessor”), and __________________________ (“Lessee”).

WITNESSETH:

A. Lessor is the owner of that certain property located in ______________ County, and located at __________________________, as more particularly described on Exhibit A (the “Property”).

B. Lessee desires to obtain an option to lease up to a maximum of approximately _______ contiguous acres of the Property as conceptually shown on Exhibit B attached hereto and made a part hereof (the “Leased Premises”) for the construction, installation, operation and maintenance thereof of a solar farm and all related generation, storage, transmission and interconnection facilities (the “Energy Facilities”).

C. Lessor has agreed to grant Lessee an option to lease the Leased Premises for such purposes, subject to the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the foregoing and the mutual covenants and agreements herein contained, and intending to be legally bound hereby, Lessor and Lessee hereby agree as follows:

1. Grant of Option. Lessor hereby grants to Lessee the exclusive right and option to lease the Leased Premises, subject to the terms and conditions hereinafter set forth (the “Option to Lease”).

EXHIBIT A – LEGAL

ALL THAT TRACT OR PARCEL OF LAND, situate in the Township of Huron, County of Erie and State of Ohio, being a part of Lot 52, Township 1, Range 10 of the Holland Land Company’s Survey bounded and described as follows:

Beginning at a point in the center of the road leading from Huron to Sandusky, which point is about 1243 feet southerly from the intersection of the north line of said Lot 52 with the middle line of the aforesaid road, and which said point is also the northwesterly corner of the property now owned by Peter M. Tyler and Ragnhild Tyler, and said point is also the southerly corner of premises conveyed to David Tyler and one, by deed recorded in the Erie County Clerk's office as Liber 10 of Deeds at page 12; thence easterly along the southerly bounds of lands now owned by David L. Guerra and one, 223 feet to an iron stake; thence southerly and parallel with the Willow Creek Road, 140 feet to a point; thence westerly and parallel with the first course herein described, 225 feet to a point in the center of the Willow Creek Road; thence northerly along the center of the Willow Creek Road, 140 feet to the point and place of beginning.

ALSO, ALL THAT TRACT OR PARCEL OF LAND, situate in the Township of Huron, County of Erie and State of Ohio, being part of Lot Nos. 44 and 52, Township 1 and Range 10 of the Holland Land Company’s Survey; and being further bounded and described as follows:

 COMMENCING at a point at the intersection of the centerline of the Willow Creek Road and __________________________; and continuing northerly along the centerline of the Willow Creek Road, and thence easterly to the point of beginning.

EXHIBIT B – LAYOUT

Depiction of the Land
Solar in PA
Legislation, Developing, and Permitting
Legislation

• A community solar project is an array of solar panels installed off-site. Anyone in the area (electric utility) can access the clean energy produced and receive credits toward their electricity bill.  

 15 solarpowerworldonline.com/2021/03/pennsylvania-senate-considers-bipartisan-community-solar-legislation/
Legislation

- Community solar **is not available in Pennsylvania**, but several proposed laws are currently being discussed in Harrisburg.\(^{16}\)

- See Pennsylvania Senate Bill 472, House Bill 1161, and House Bill 989.\(^ {17}\)

---

\(^{16}\) nyserda.ny.gov/All-Programs/Programs/NY-Sun/Solar-for-Your-Home/Community-Solar

\(^{17}\) legiscan.com/gaits/search?state=PA&keyword=community+solar
Developing and Permitting

• Who is the Authority Having Jurisdiction (AHJ)?\textsuperscript{18} e.g., state, county, township, city
• Are additional federal or state permits required?

\textsuperscript{18} growsolar.org/permitting/
Developing and Permitting

• How does the local AHJ define **small-scale** vs. **large-scale**?
• Can we develop in the current **zoning district**?
• What are the **setback requirements**?
• Is there a **lot size restriction**?
• Does the local AHJ require **tree screening**?
Developing and Permitting

• Is a **decommissioning plan** required?
• Is a **form of surety** via escrow required? If so, when?
• Does the local AHJ allow for **battery storage**?
Developing and Permitting

• What can cause a solar project to be tabled at the option stage?

  • Lack of local legislation from the AHJ
  • Lack of interconnection from the utility
  • Unfavorable interconnection results from the utility
  • Changes in the state/local legislation and/or policy
  • Unfavorable project economics
Developing and Permitting

• Local opposition can be (and should be) addressed by the solar developer
Questions?

pguerra@forefrontpower.com
linkedin.com/in/phillip-guerra