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Dickinson Law

# Local Law for Solar Project Development in Pennsylvania

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**PRACTICE GREATNESS**

# Penn State Research Project

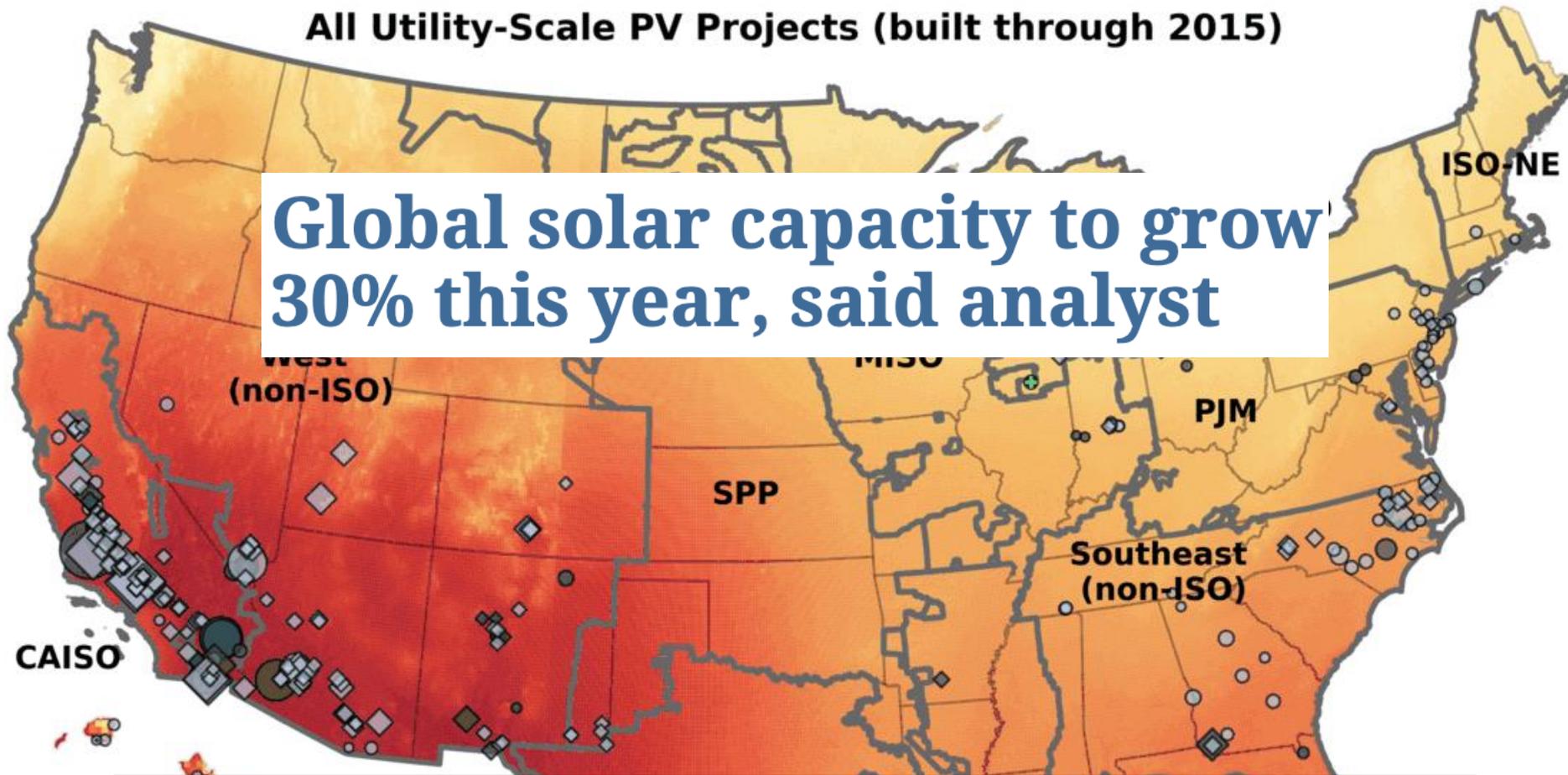
- Hosted at Penn State Dickinson Law in collaboration with Penn State Extension School and with support of Center for Energy Law and Policy
- Collect and review all 2500+ municipal/township zoning ordinances to identify regulation of solar energy systems, with a particular focus on:
  - Authorization of such facilities as a “right” or a “conditional use”
  - Requirements for such facilities, either through application of existing zoning requirements or special requirements
  - Definition of solar systems, both in terms of type of installation, scale of installation and purpose of installation
- Identify common practices within the commonwealth and across the U.S., with the aim of eventually preparing a library of information, including an updated model ordinance, for use by municipal/township officials

# Preliminary Results

Principal Use Guidance	Accessory Use Guidance	No Solar Energy Guidance
6%	10%	84%
Differentiated requirements between principal use and accessory use. Principal systems typically require a conditional use permit.	Guidance/requirements for accessory use systems, typically established as a “Use by Right” with minimal permitting.	Lack of specific guidance for solar energy systems. May include limited related to solar easements or solar water heaters.

## All Utility-Scale PV Projects (built through 2015)

**Global solar capacity to grow 30% this year, said analyst**



ETFs

## Renewables funds see record outflows as rising rates, costs hit shares

By Patturaja Murugaboopathy and Tommy Wilkes

Fixed October 10, 2023 3:54 AM EDT · Updated 9 hours ago



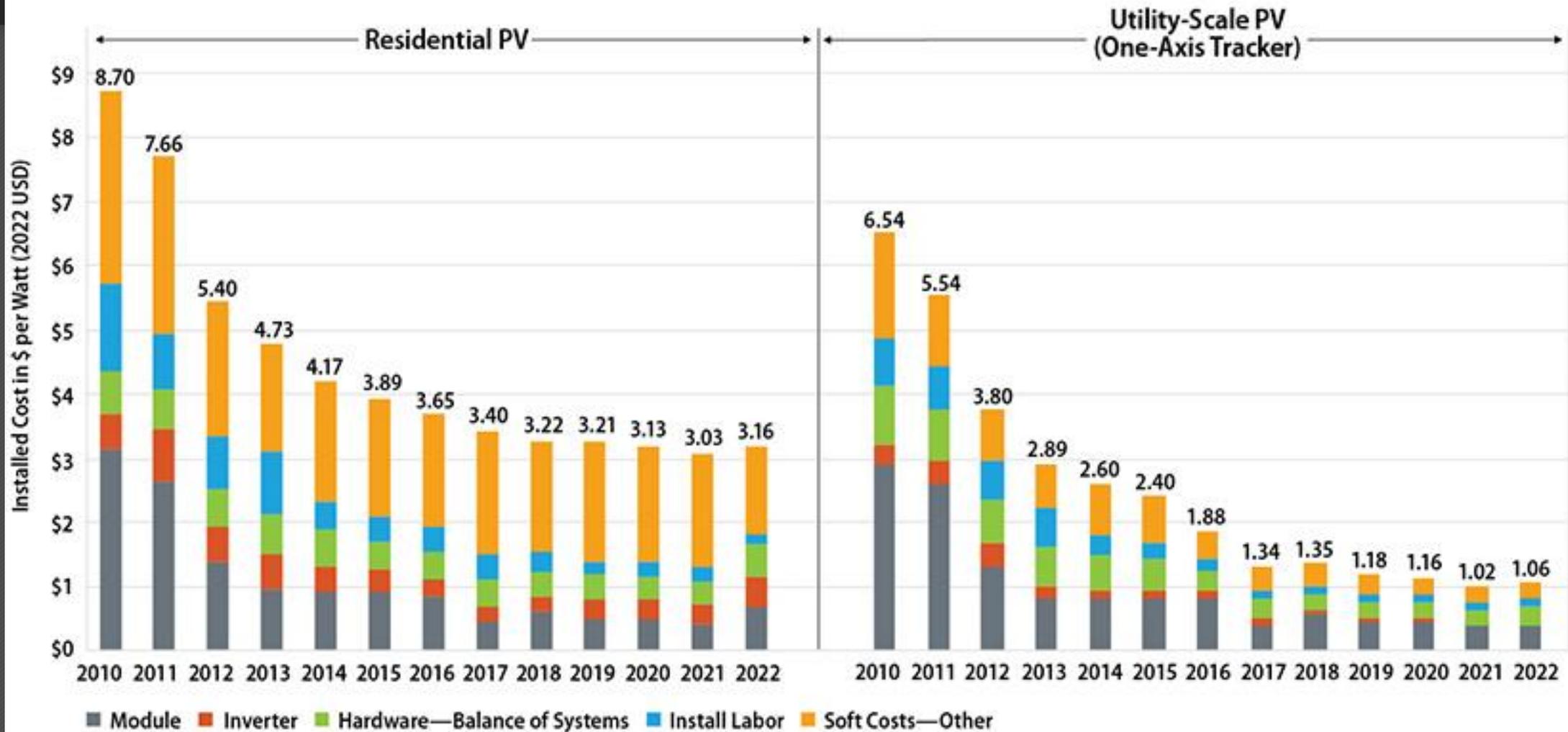
Fixed c-Si



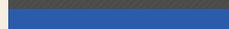
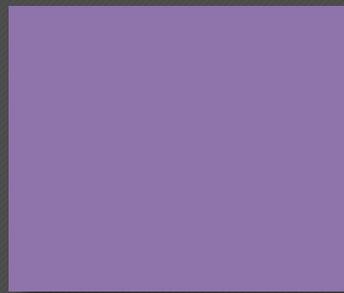
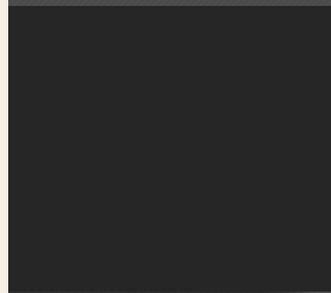
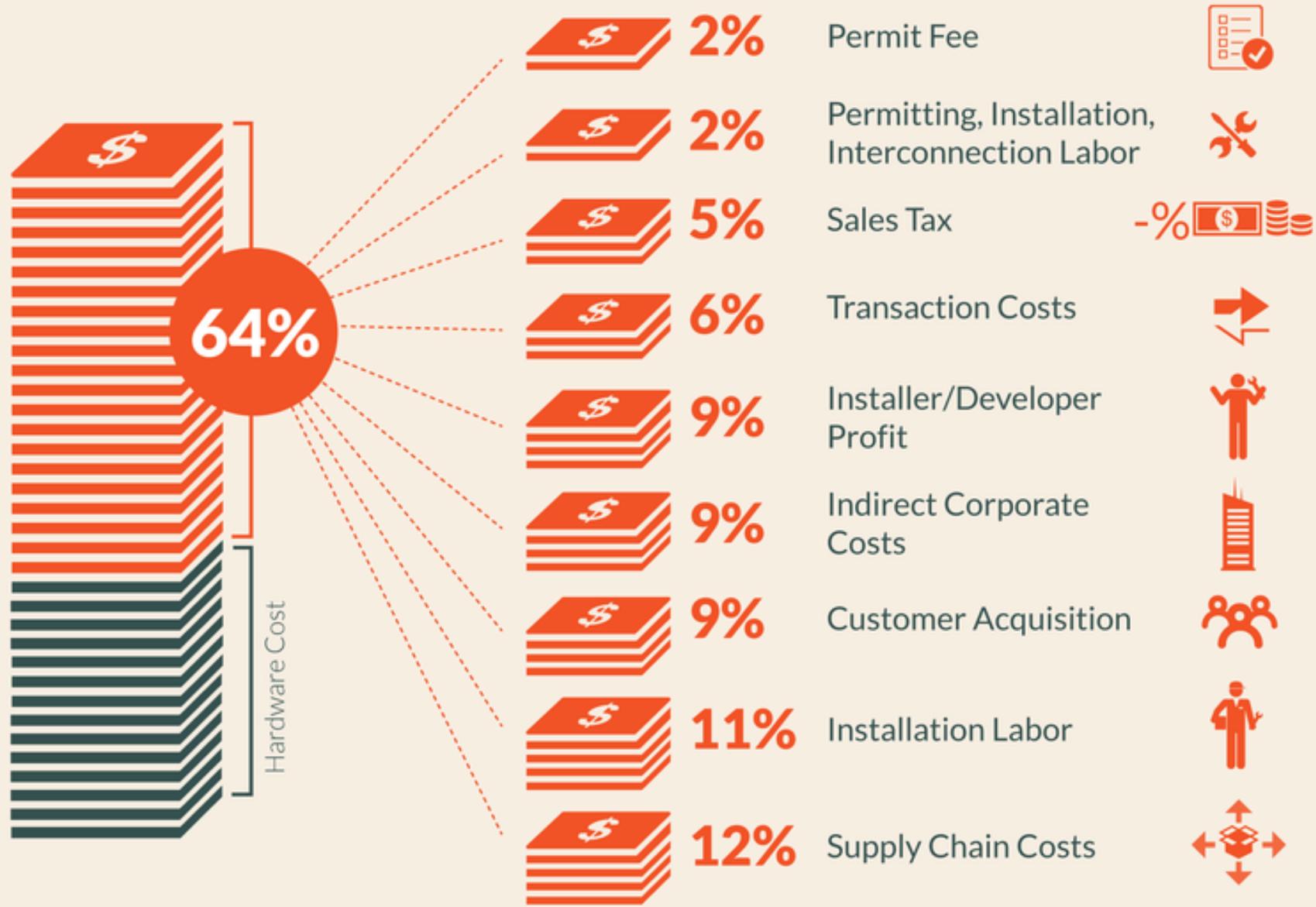
Tracking c-Si

6.5  
Long-Term Annual Average Solar Resource  
(Global Horizontal Irradiance, kWh/m<sup>2</sup>/day)

# Evolution of Solar Energy Costs



# SOFT COSTS BREAKDOWN



# Common Elements of Solar Ordinances

- Accessory vs Non-Accessory/Principal Systems
- Setbacks & Height Limitations
- Lot/Parcel Size
- Glare/Reflection Mitigation
- Buffers/Screening
- Decommissioning

# Accessory vs Non-Accessory/Principal Systems

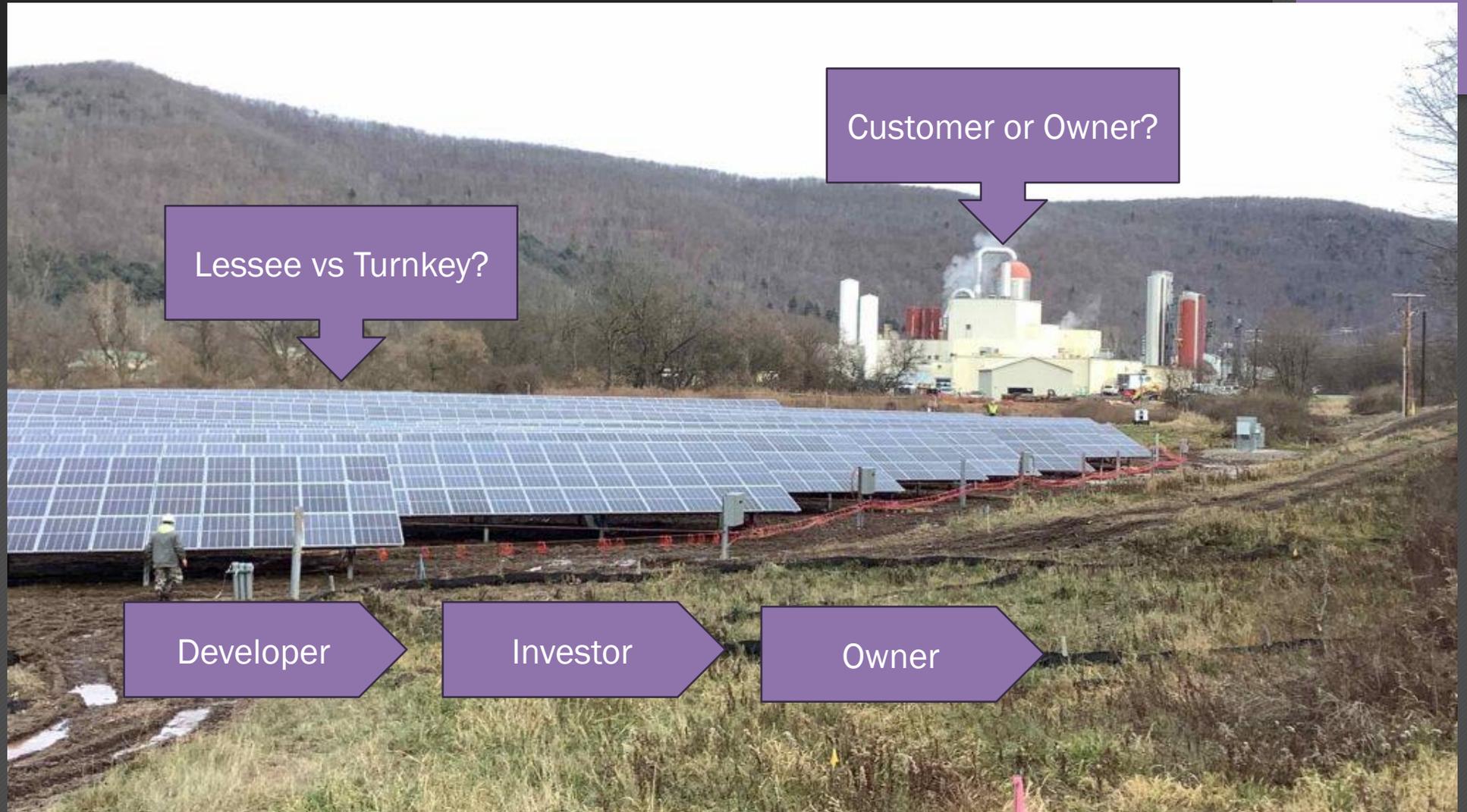
**ACCESSORY SOLAR ENERGY SYSTEM:** An area of land or other area used for a solar collection system used to capture solar energy, convert it to electrical energy or thermal power and supply electrical or thermal power primarily for on-site use. An accessory solar energy system consists of one (1) or more free-standing ground, or roof mounted solar arrays or modules, or solar related equipment and is intended to primarily reduce on-site consumption of utility power or fuels.

## **SOLAR ENERGY SYSTEM (MAJOR):**

A commercially operated solar energy system that is principally used to convert solar radiation to electricity to supply electricity to off-site customer(s,) including but not limited to a Solar Farm.

“Solar Energy Farms” are systems which exist solely to generate energy for sale back into the energy grid system, rather than being consumed on site.

# Example: DFA Solar Project



# Soil Considerations

## (2) Solar Array Locations:

(a) Solar Arrays may be located **only on 75% of the total Class I and II agricultural soils within the SEF Development Area**, unless the area will be devoted to **Agrivoltaic activities**, in which case **100%** of the Class I and II soils may be included in the SEF Development Area.

Agricultural Zoning Districts. In Agricultural Zoning Districts (RC, R, AP), no more than 50% of the entire area for development shall consist of Class I and Class II prime agricultural soils.

# Lot/Parcel Size

## **GROUND MOUNTED PRINCIPAL SOLAR ENERGY SYSTEMS:**

1. Minimum lot size: The minimum lot size for every lot on which a SEF, or a component of a SEF, is proposed shall be one hundred (100) acres.

Principal Use. A Solar Energy System shall be permitted as a principal use subject to conditional use approval in the T- Township and A/C Agricultural/ Cluster Residential Districts only, subject to the following and as otherwise provided herein:

(a) The maximum area occupied by a principal Solar Energy System on any lot shall be ten (10) acres;

# Lot/Parcel Size

SWIFTWATER, Pa. – A proposal to build Pennsylvania's largest solar field on a mountain slope has gotten one of the final two permits required before it begins construction.

The state Department of Environmental Protection this month issued a National Pollutant Discharge and Elimination System permit to Apex Clean Energy for the planned \$111 million, 80-megawatt solar farm field on a private 644-acre site on top of Bear Mountain.

The field would include about 200,000 solar panels on 490.07 acres, according to the permit.

# Example: Recent Litigation

## Local Solar Ordinance:

- The property cannot have an agricultural conservation easement.
- “Any lot” used as a solar farm must be at least 50 acres.
- Equipment has to be set back at least 50 feet from property lines.
- Fencing or a “permanent evergreen vegetative buffer” has to be installed on the perimeter of the property.
- No more than 50% of the lot can be covered by equipment.
- The operator has to have at least \$1,000,000 of liability insurance per person and \$2,000,000 per incident.
- The operator has to post a bond to cover the township’s costs if the solar farm goes out of business.
- The operator must have an approved stormwater runoff plan.

Action: Of the 12 parcels leased to host the project, there are “lots” that do not meet the 8 requirements

Lawsuit: Allegation that township supervisors were biased against the project, violated the law, and “capriciously” disregarded valid evidence by ruling that each and every one of the 12 separate but adjacent lots must independently meet all eight criteria. Instead, it maintains that the 12 lots, when considered as one larger lot, meet all eight requirements.



# Decommissioning

*At the time of issuance of the permit for the construction of the PSES, the owner shall provide financial security in the form and amount acceptable to the Borough/Township to secure the expense of dismantling and removing said PSES and restoration of the land to its original condition, including forestry plantings of the same type/variety and density as the original.*

## **Decommissioning Requirements**

Pursuant to 402(II)(10)(k) of the Ordinance, the Applicant estimates the cost of decommissioning the Solar Energy Facility will be approximately \$1,665,466 based on the current available information at the time of application. The Applicant will provide the required performance security at the time of application for a building permit or 30 days prior to site development, whichever occurs first. These dates may vary and are dependent on several factors including the review of the transmission line interconnection study. The interconnection agreement will be provided to the Township when it is completed and available to the Applicant.



(a) The SEF owner is required to notify the County immediately upon cessation or abandonment of the operation. The SEF shall be presumed to be discontinued or abandoned if no electricity is generated by such system for a period of twelve (12) continuous months.

...

(c) To the extent possible the materials shall be re-sold or salvaged. Materials that cannot be re-sold or salvaged shall be disposed of at facility authorized to dispose of such materials by federal or state law.

...

The developer shall, at the time of zoning application, provide the County or municipality with an estimate of the cost of performing the decommissioning activities required herein. The solar project Owner shall provide financial security of 110% of the estimated cost of decommissioning, which will be reviewed by \*\*\* County's consulting engineer. The estimate may include an estimated salvage and re-sale value, discounted by a factor of 10%. The decommissioning cost estimate formula shall be:

$$\begin{aligned} & \text{Gross Cost of Decommissioning Activities} \\ & - 90\% \text{ credit of salvage and re-sale value} \\ & = \text{the Decommissioning Cost Estimate} \end{aligned}$$

**On every 5<sup>th</sup> anniversary of the date providing the decommissioning financial security, the SEF Owner shall provide an updated decommissioning cost estimate, utilizing the formula set forth above with adjustments for inflation and cost & value changes. If the decommissioning security amount decreases by greater than 10%, the County or Municipality shall release from security any amounts held in excess of 110% of the updated decommission cost estimate. The decommissioning security may be in the form of cash deposit, surety bond, irrevocable letter of credit, cashier's check, or escrow account from a federal or Commonwealth chartered lending institution in the amount of 110% of the total proposed decommission cost estimate and in a form satisfactory to the County's or Municipality's Zoning administrator and Solicitor.**

a) Proof of financial assurance.--A grantee who executes a solar energy facility agreement on or after the effective date of this subsection shall **provide a decommissioning plan**, submit proof of **financial assurance** to the county recorder of deeds and provide notice to the surface property owner party to the solar energy facility agreement. The financial assurance shall conform to the requirements of this chapter to secure the performance of the grantee's obligation to decommission the grantee's solar energy facility. If the grantee does not fulfill the grantee's obligation to decommission the solar energy facility, the financial assurance shall be made payable to the **surface property owner**.

(b) Amount of financial assurance.--The **amount** of financial assurance shall be **equal to the estimated cost to decommission the solar energy facility**. The amount of financial assurance shall be calculated and **updated every five years by a third-party professional engineer** retained by the grantee from a list of professional engineers compiled by the department and published on the department's publicly accessible Internet website.



Working on a Solar Ordinance? Have any additional questions? Please do not hesitate to reach out:

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