

Pennsylvania Update

MSSIA – 2nd Qrtly Mtg
June 30, 2022



Solar Update Highlights in PA – 6/30/2022

- Current in-state solar PV capacity in PA is **742 MW**, from a total of 35,499 systems, as of 6/29/2022.
 - PJM Queue for PA – 20.5 GW (556 applications: Active, Engineering/Procurement, and Under Construction-including in partial service).
 - RGGI in PA – Underway with the first auction in September; estimated \$200M in potential revenue, but how that is allocated has yet to be determined.
-

Solar Policy Related Issues (Only discussing bills that have any possible traction....)

- Both Senate and House **Decommissioning/Bonding bills** (SB284 and HB2104) have recently passed; the controversial landfill provision in HB2104 had been removed just before the vote, but SB284 is still favored by MAREC. These bills now need to be reconciled.
- **Community solar** will not be part of the overall budget agreement including code bills that was supposedly reached yesterday (6/29/2022) and will be voted over the next few days. However, it seems that there is a general agreement among legislative leaders, and a particularly strong commitment from Senate Republicans, to work on community solar over the summer with the goal of running a community solar amendment to House Bill 1161 in the Senate this fall. HB 1161 is the current green tariff bill, promoted by Duquesne Light Company (DLC).

Solar Update Highlights in PA – 6/30/2022

- PA PUC held a **Interconnection Collaborative Meeting** on June 1, 2022, with solar professionals regarding issues they had with individual utility application processes, as well as cost for equipment upgrades and timelines. That particular PUC department will provide a summary to the Commissioners and will likely make a few recommendations, then they plan to meet with the utilities in early August. PASSIA has prepared a summary of the IX Collaborative Meeting, which is available to all. It covers the following topics:
 - Timelines
 - Meters/PTO
 - Online payment process for interconnection applications
 - Interconnection equipment upgrade process and costs
 - New Construction
 - Effective Grounding
 - Assigned contact person
 - Dispute resolution process
 - Virtual meter aggregation (VMA)
 - Inaccurate Billing
 - Bigger picture issues (including smart inverters)
- **PA Solar Panel System Recycling Virtual Markets Development Summit** on 6/23/2022 - Exploration of Recycling Markets Surrounding Solar Panel Systems hosted by Pennsylvania Recycling Markets Center. This covered Emerging Policy, Developing Standards of Recycling Practices, and Manufacturing, Operation, Recycling & Reuse of Solar Panel Systems. Presenters included, Senator Yaw, SEIA, NREL, EPA, SERI, Green Eye Partners, SunPower, and Global Sustainability.

AEPS Report 2021 – Observations on Solar Resources

Interconnection Steps, System Size and Base Fees



The Interconnection Process – DURATION & FEES

Amounts listed are base fees, additional fees may apply.

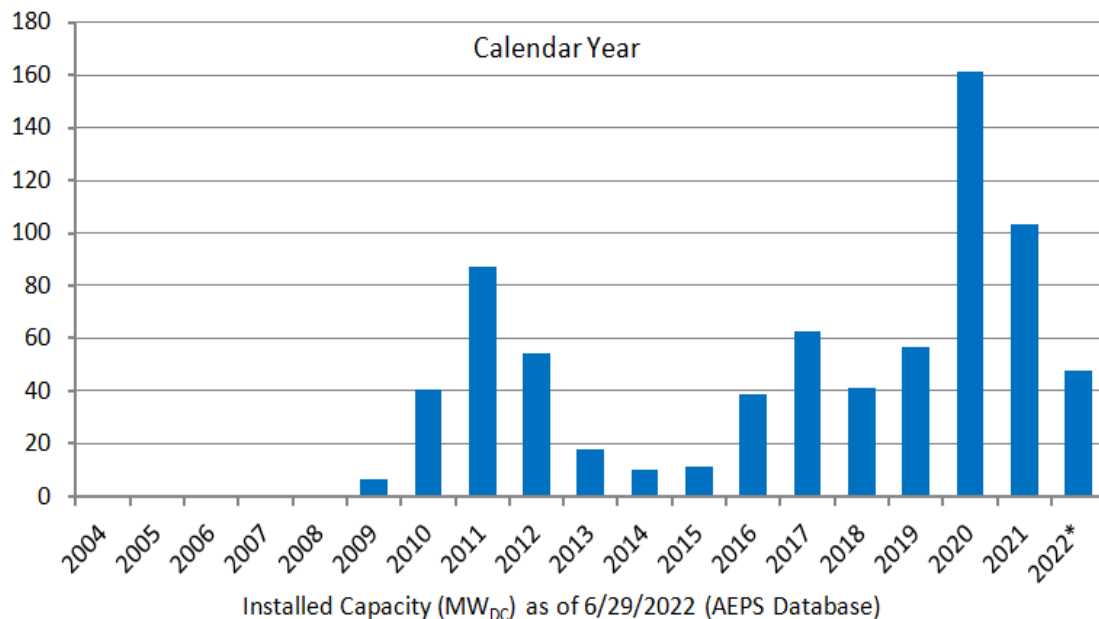


Please note these durations do not account for delays you may encounter if infrastructure upgrades are needed (e.g., a transformer upgrade) or delays after the approval to install from PECO (e.g., Inspection by your township officials).

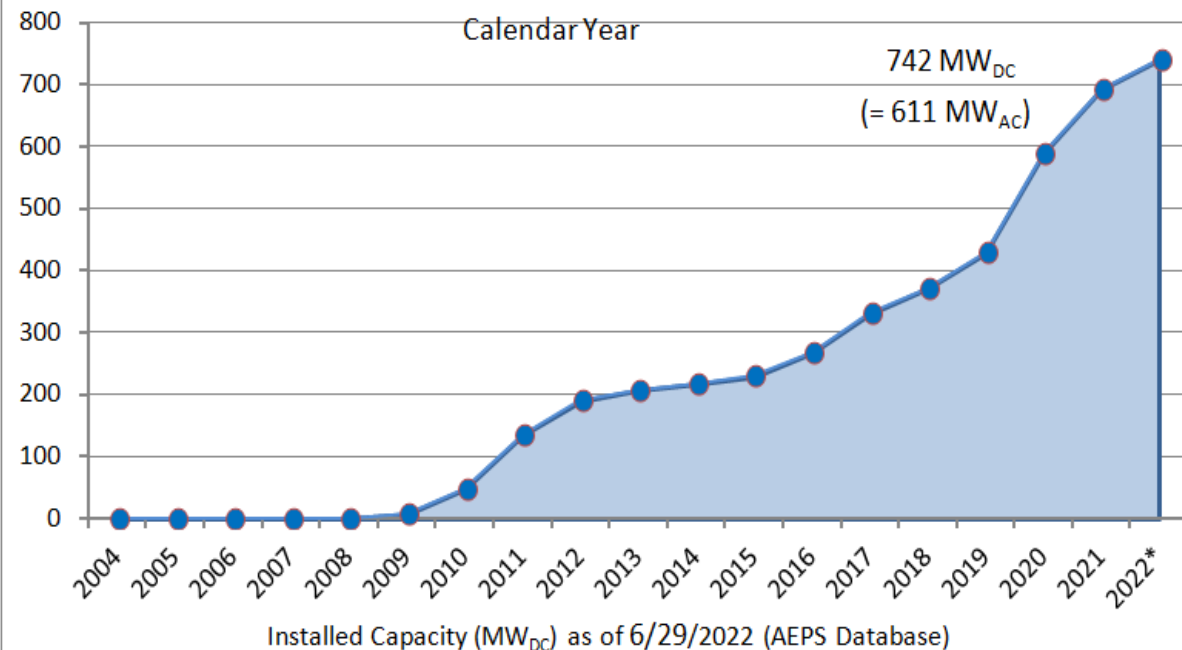
PV Capacity in PA

Annual & Cumulative

Annual Solar PV Capacity (MW_{DC}) Installed in PA

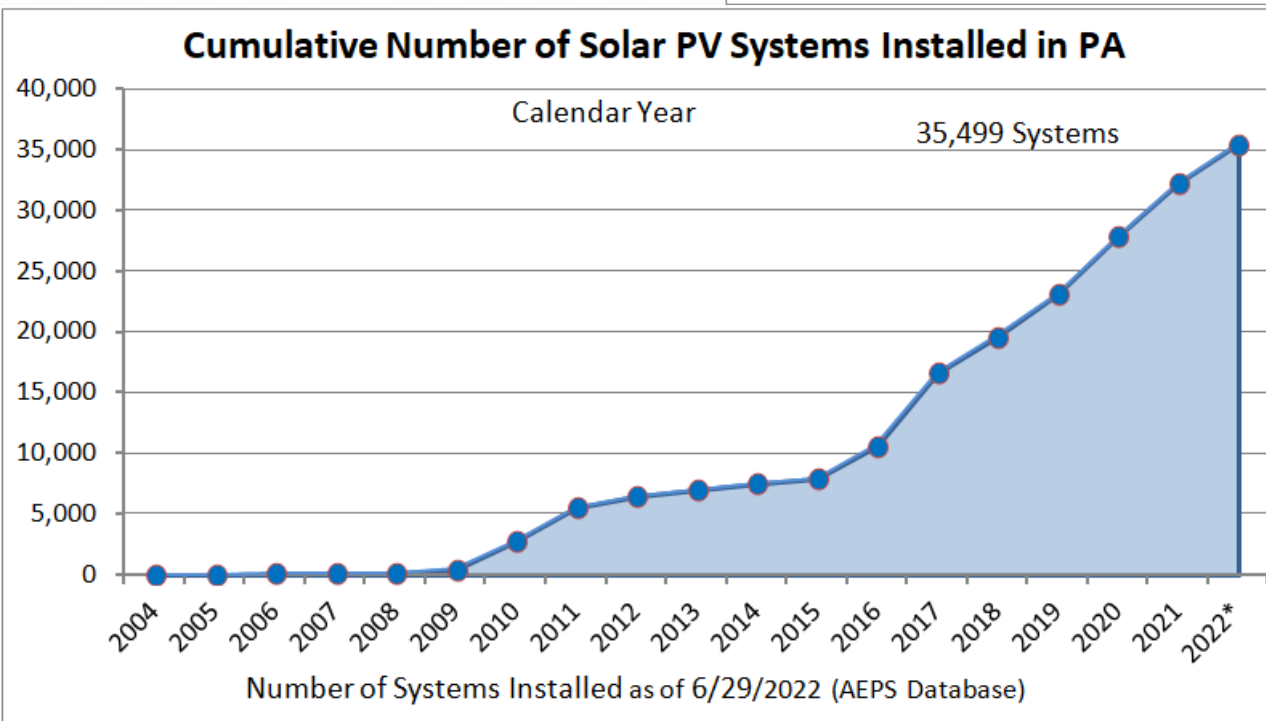
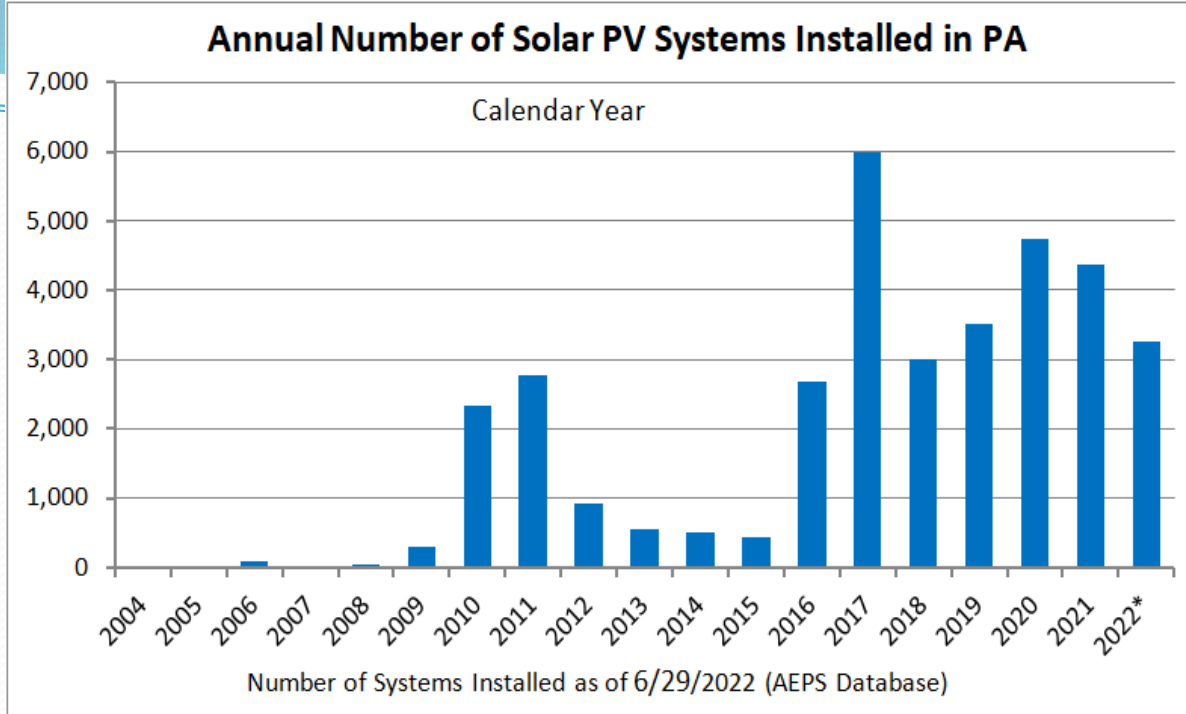


Cumulative Solar PV Capacity (MW_{DC}) Installed in PA



SEIA reports 936 MW installed through Qrt 1-2022

Number of PV Systems in PA Annual & Cumulative



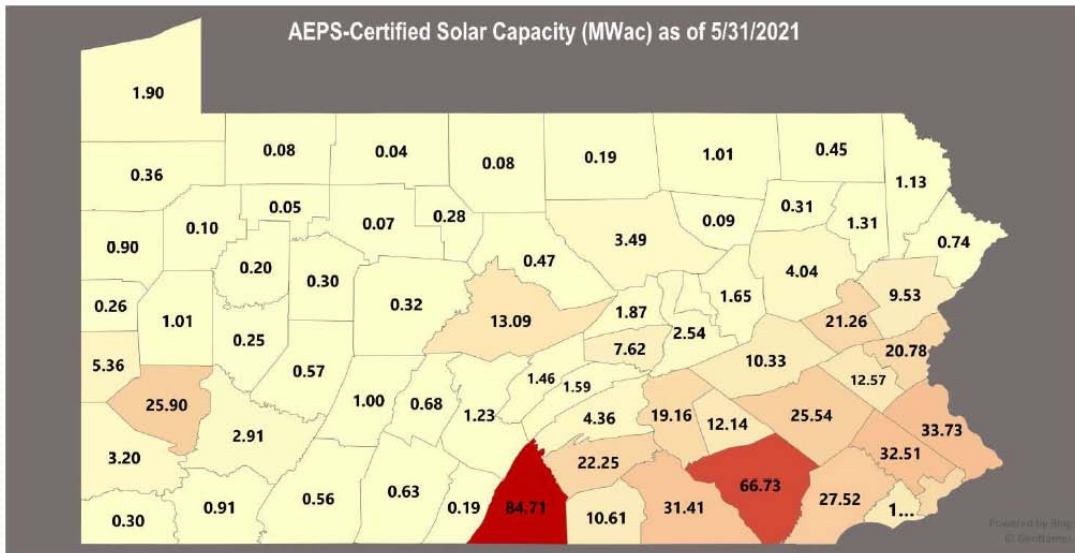
SEIA reports 44,927 systems
installed through Qrt 1-2022

Breakdown Of PV Installations in PA

Cumulative PV Installed in PA		
Capacity (DC)	# of Systems	Total MW
≤ 15 kW	30,210	242
> 15 kW to ≤ 250 kW	5,037	161
> 250 kW to ≤ 1 MW	183	90
> 1 MW to ≤ 3 MW	48	77
> 3 MW to ≤ 5 MW	14	52
> 5 MW to ≤ 10 MW	1	6
> 10 MW	6	114
Total	35,499	742

* as of 6/29/2022 as per PA AEPS (PUC)

AEPS Report 2021 – Observations on Solar Resources

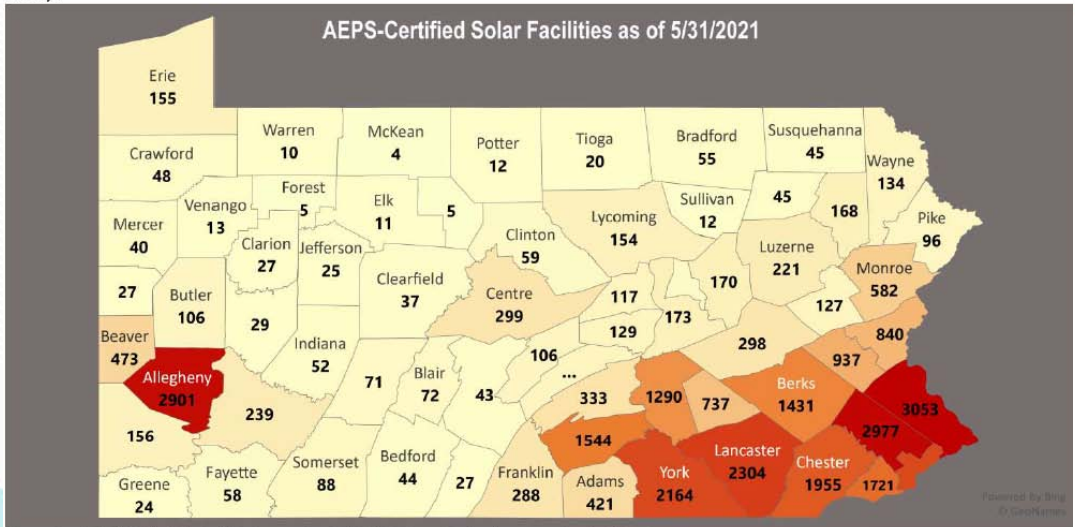


Note: As of 5/31/2021, the AEPS certified solar generation capacity was 11.90 MWac in Delaware County and 21.27 MWac in Philadelphia County.

0.5% Solar PV Requirement =
518.4 MW_{AC} Solar PV Capacity

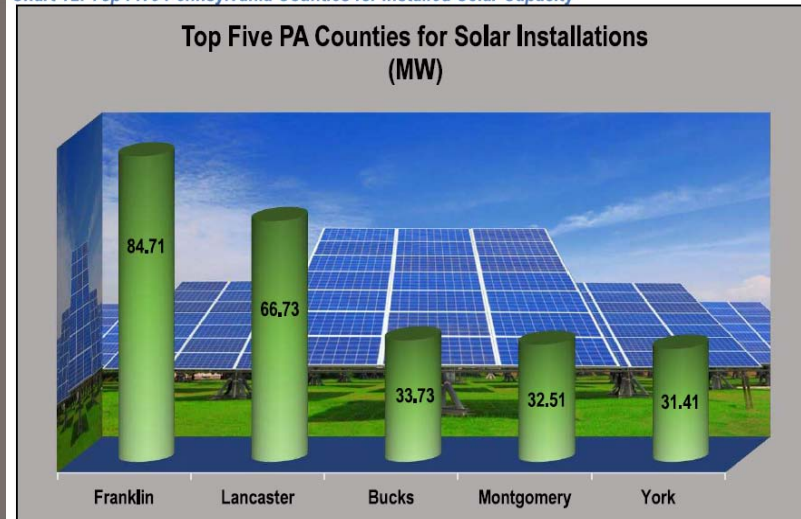
But, 534.4 MW_{AC} had been
installed in PA by 5/31/2021

Currently, 611 MW_{AC} is installed
(as of 6/29/2022), or the solar
share = 0.589%



Note: As of 5/31/2021, Philadelphia County has 2,146 AEPS certified solar generation facilities.

Chart 12: Top Five Pennsylvania Counties for Installed Solar Capacity

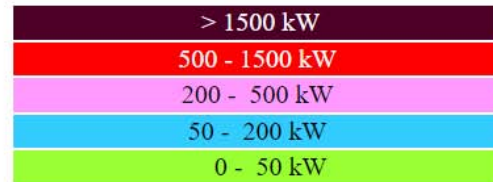


Solar Map of PA Projects – PA PUC Administrator

35,492 Photovoltaic Projects

└ Zoom in and click on markers for details ┘

Total AC kW by Zip



Select Fuel Type:

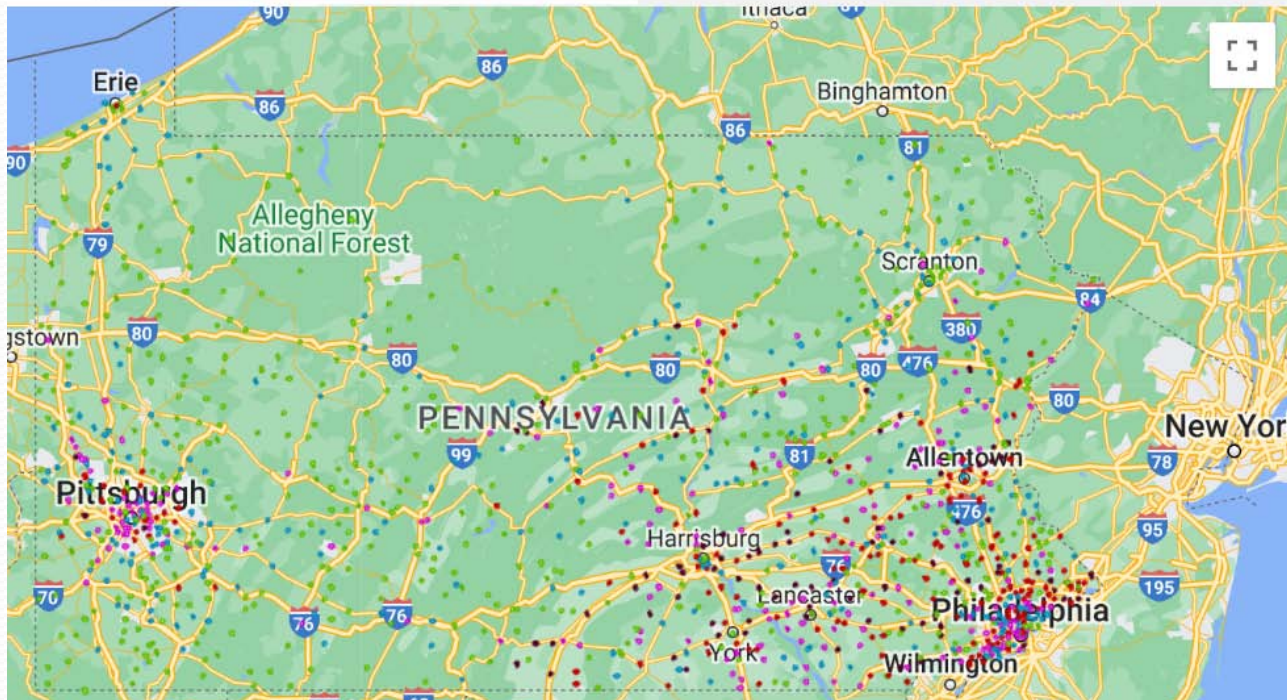
Photovoltaic-In PA

Group By:

☒ Zipcode

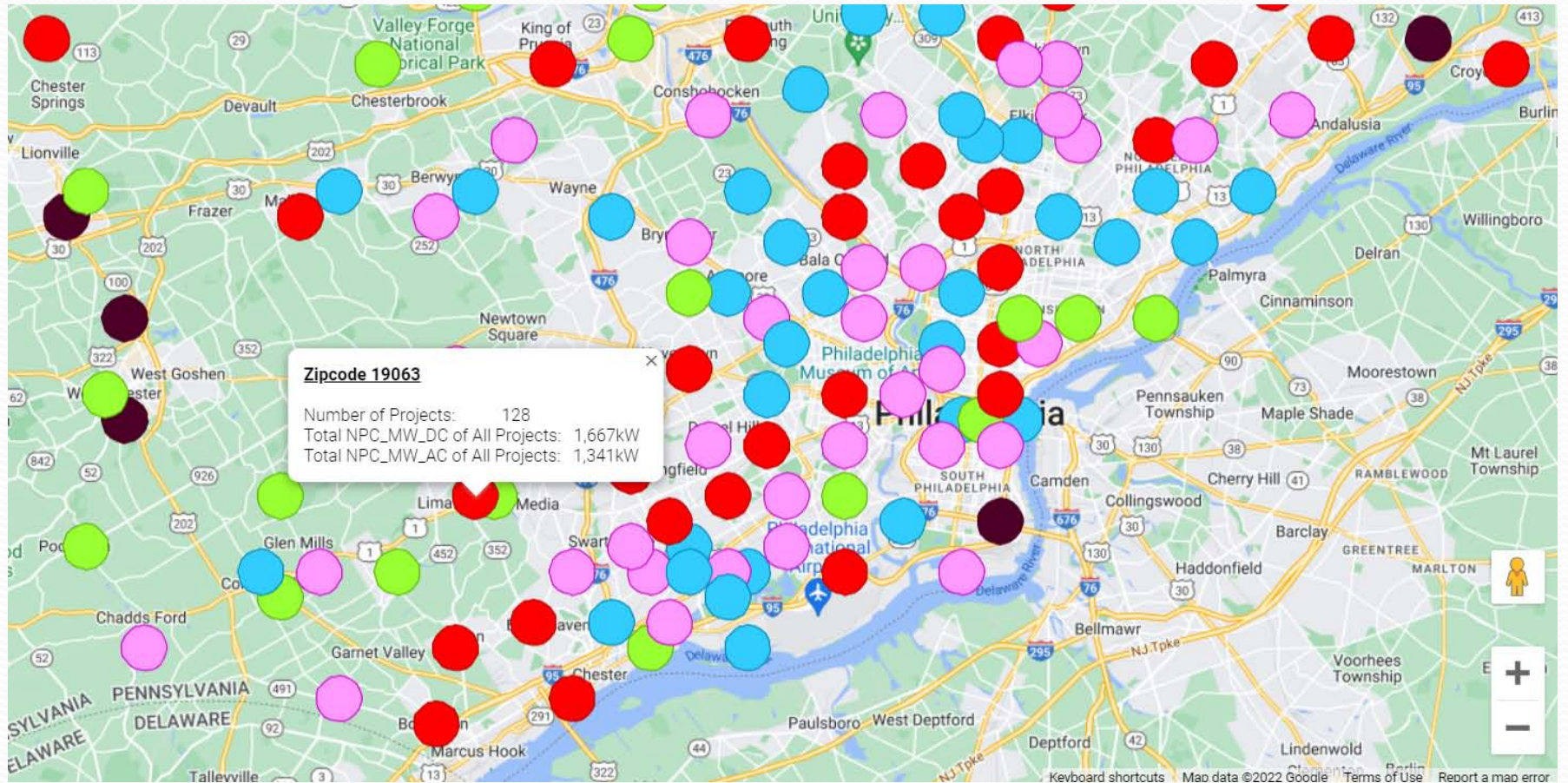
☐ County

View Project Map



<https://pennaeps.com/reports/>
Click on **QUALIFIED FACILITIES MAP** Button

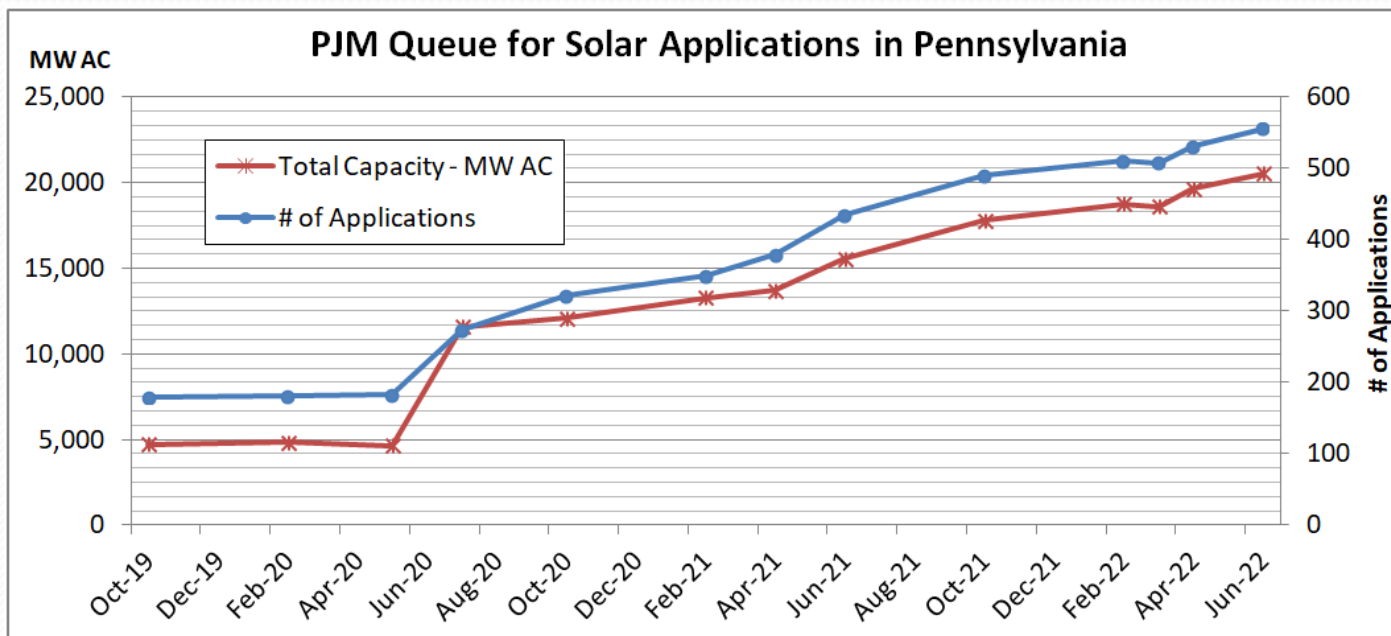
Solar Map of PA Projects – Zoomed In



PJM Queue for PA Solar Applications

PJM Queue for PA		As of 6/29/2022			
Status	# of Apps	Max Facility Output (MFO)			Total Cap IC Queue Position
		Total Cap AC MW	Capacity Range		
			Min	Max	
Active	473	18,818	1.0	401.6	9,693
Engineering/Procurement	78	1,611	0.2	150.0	824
Under Construction	4	77	17.1	20.0	48
Part in Srvc - Under Const	1	20	20.0	20.0	8
Sub-Total	556	20,527			10,573
In Service	14	215	3.3	20.0	58
Grand Total*	570	20,742			10,631

* Total Applications categorized as "Solar & Storage" = 85



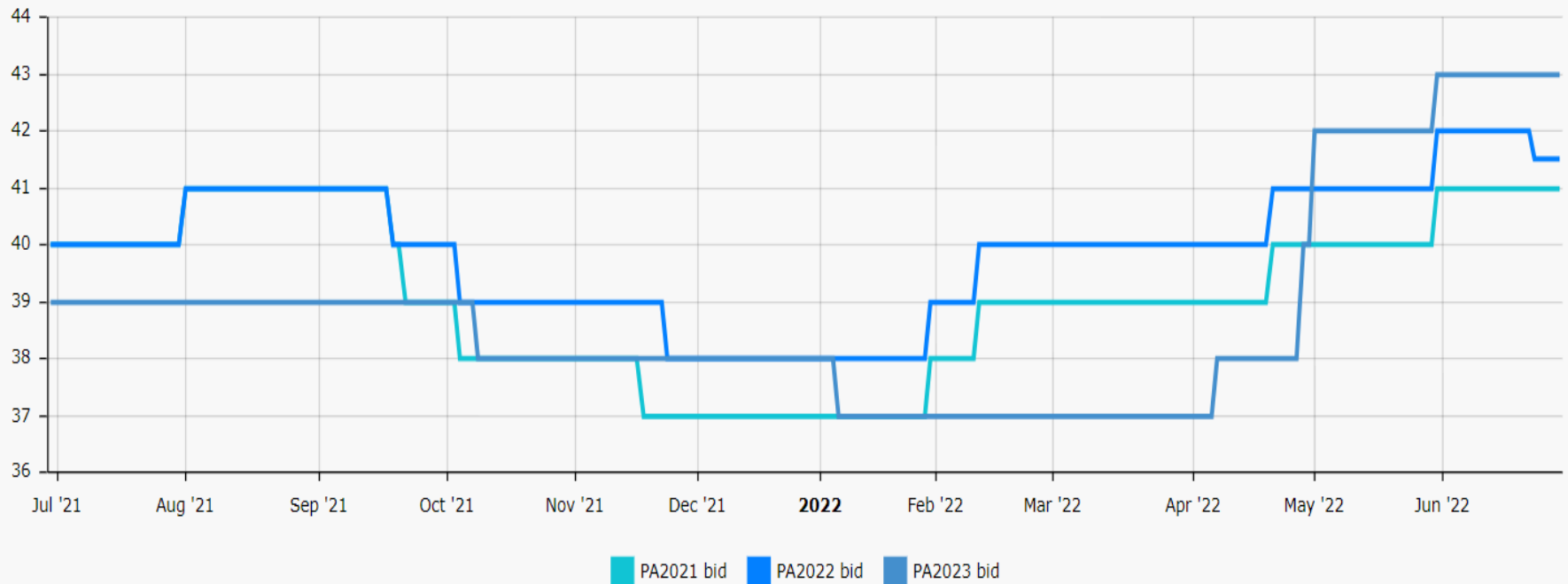
Current PA SACP = \$76.48/SREC

Current PA SREC Prices

PA

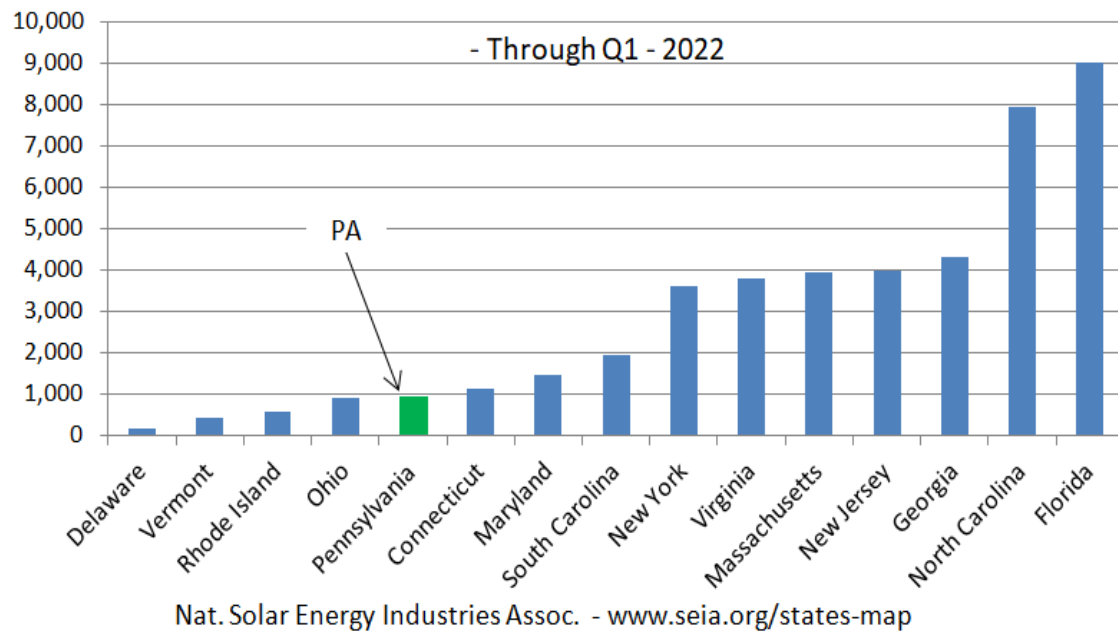
Latest Bid Price: \$43.00

Bid Prices for PA - Last Twelve Months (LTM)



This graph is protected by copyright laws and contains material proprietary to SRECTrade, Inc. All bid pricing and notes included are indicative and subject to change. Please contact us for most current markets. If a market is not quoted herein, please [contact us](#) directly for further information.

Total Solar Capacity (MW_{DC}) Installed by State on the East Coast



Solar in Other East Coast States Compared to PA

Solar in Pennsylvania Ranks 29th in the Nation

State solar PV installation rankings, 2021

State	Rank		
	2019	2020	2021
Pennsylvania	25	17	29

Total Solar PV Installed per Capita (MW_{DC}/Million)

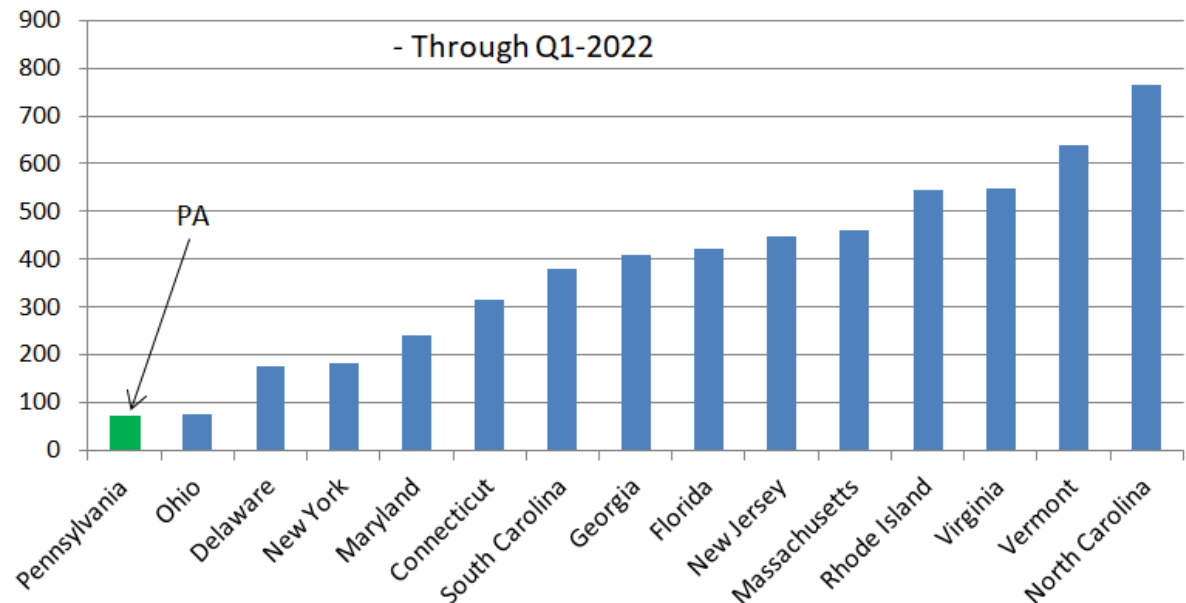
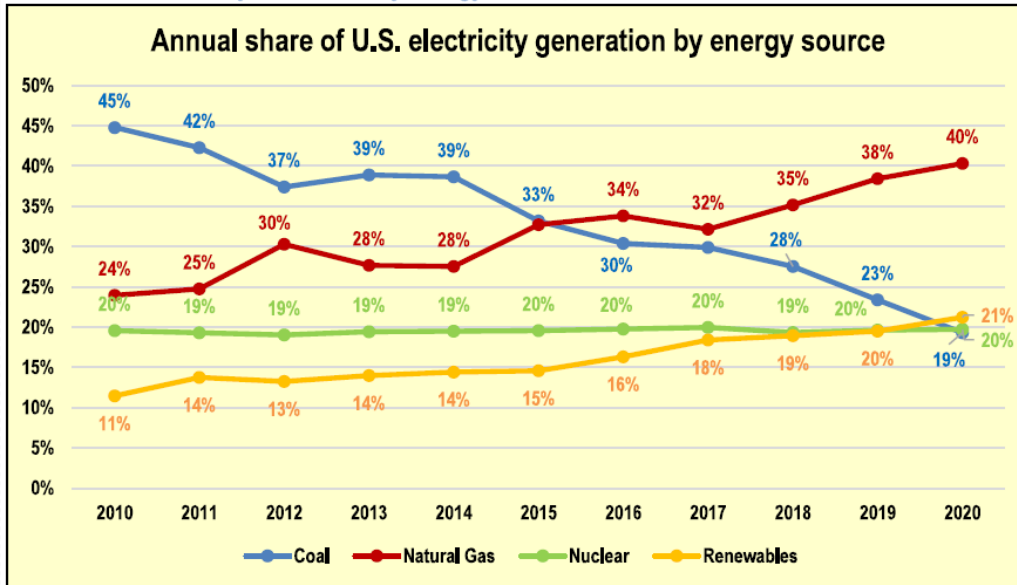


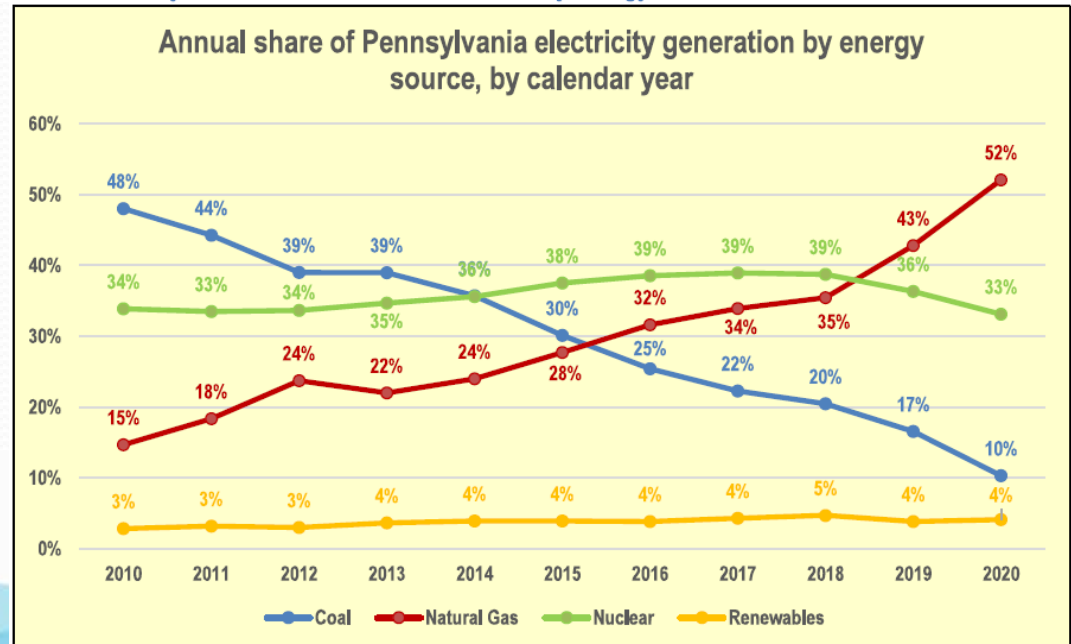
Chart 6: U.S. Electricity Generation by Energy Source, 2020 Calendar Year



Source: Energy Information Administration Electricity Data Browser

AEPS Report 2021 – Observations on Solar Resources

Chart 7: Pennsylvania Annual Electric Generation by Energy Source



Source: Energy Information Administration Electricity Data Browser

AEPS Report 2021 – Observations on Solar Resources

Table 6A: Estimated Need and Availability of AECs for AEPS Solar Compliance: 2022 – 2025⁴⁸

Year	Estimated Credits Required	Estimated In-state Credits Created	Estimated Banked Solar Credits Available	Estimated NSTI Credits Available	Estimated Total Supply of Available Credits
2022	690,044	562,369	746,249	146,557	1,455,175
2023	693,993	621,550	626,805	17,017	1,265,372
2024	697,993	681,036	571,379	14,460	1,266,875
2025	702,043	740,523	568,882	11,258	1,320,663

Table 6B: Estimated Nameplate Solar Capacity Buildout: 2022 – 2025⁴⁹

Year	Estimated Capacity Required w/o Banked & NSTI Credits (MWac)	Estimated Installed Capacity (MWac)
2022	510	595
2023	512	655
2024	515	715
2025	518	775

Chart 23: Estimated Approved NSTI Credits by AEPS Compliance Year

