How to Pay for Your School's Solar System

Thursday June 29
9:30-11:00 AM

Solar finance experts will describe new and existing options, and how these incentives create opportunities for greater financial savings!

Presented in partnership with

PHILADELPHIA SOLAR ENERGY ASSOCIATION

PHENND SUSTAINABILITY

DELAWARE VALLEY dvrpc REGIONAL PLANNING COMMISSION

PENNSYLVANIA SOLAR CENTER

Generation180

Solar Schools Toolkit
Webinar #3
How to Pay for Your School's Solar System
June 29, 2023

Speakers

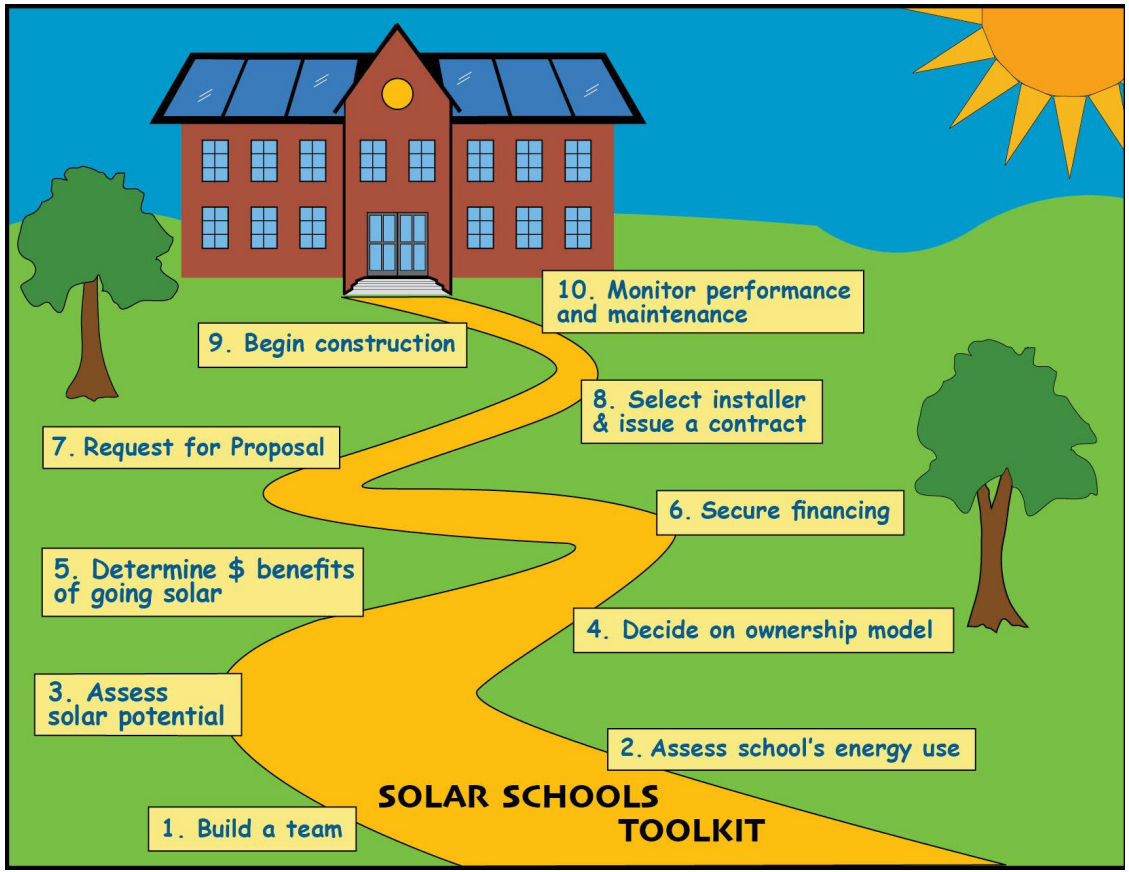
- Roger Clark, Reinvestment Fund/SDF (retired)
- Andrea Swiatocha, Schools & Nonprofits Team, US DOE
- Maryrose Myrtetus, Philadelphia Green Capital Corporation
- Matthew Brown, National Energy Improvement Fund

Philadelphia Solar Energy Association

Toolkit supported by PA Department of Environmental Protection

In cooperation with: PHENND, PA Solar Center, Generation 180, Delaware Valley Regional Planning Commission

10 Steps to Become a Solar School



Sources of Capital to Pay for Your System if You are Going the “Direct Ownership” Option

1. Your Own Cash
2. Elective Payments under the federal Solar Investment Tax Credit
3. Grants
    a. Utility Act 129 Solar Programs
    b. DOE’s *Renew America’s Schools* grants
    c. Other grants (coming soon)
4. Green Banks and other Non-Profit Lenders
5. Private Lending for solar

3.b. DOE's *Renew America's Schools* Program

Andrea Swiatocha
Schools & Nonprofits Team
US DOE

DOE Renew America's Schools (BIL 40541)

June 29, 2023

Renew America's Schools (BIL Provision 40541)

New competitive grant program for energy improvements at public school facilities

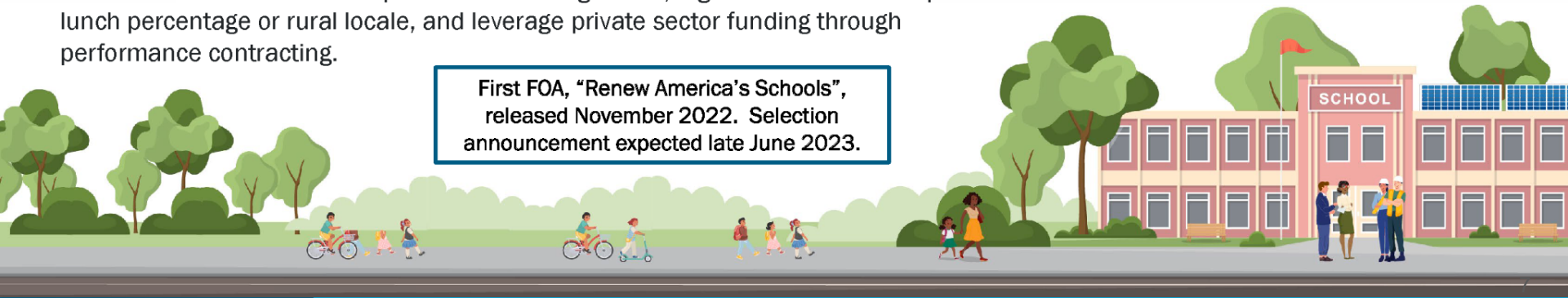
Funding: $500M ($100M over five years), until expended, through competitive grants. Initial FOA release announced $80M in available funding with award sizes between $500,000 and $15,000,000.

Qualifying Energy Improvements: Improvements, repairs, or renovations that reduce energy costs or lead to improved teacher and student health and achieve energy savings, installation of renewable energy, installation of alternative fueled vehicle (AFV) infrastructure, and purchases or leases of AFV.

Eligible Entities: Consortia of 1 local educational agency (LEA) and one or more schools, non-profits, for-profits, or community partners. LEA Definitions include School Board, Bureau of Indian Education Schools, Educational Service Agencies.

Prioritization: Schools with improvement funding needs, high free and reduced-price lunch percentage or rural locale, and leverage private sector funding through performance contracting.

First FOA, "Renew America's Schools", released November 2022. Selection announcement expected late June 2023.



Renew America's Schools – Innovation

- Replicable and scalable impacts
- Create innovation, sustaining partnerships
- Leverage funding and economies of scale
- Target disadvantaged communities
- Improve occupancy health
- Enrich learning and growth
- Schools as community assets

Renew America's Schools – Grants Overview (FY22/23)

Total Amount to be Awarded	• Approximately $80,000,000*
Average Award Amount	• SCEP anticipates making awards that range from $500,000 to $15,000,000
Types of Funding Agreements	• Cooperative Agreement (a type of grant)
Anticipated Period of Performance	• 24 to 60 months
Cost Share Requirement	• At least 5% of Total Project Costs

First FOA released November 29, 2022.

* As initially announced

Renew America's Schools – Topic Areas

Topic Area 1

High-Impact Energy Efficiency and Health Improvements

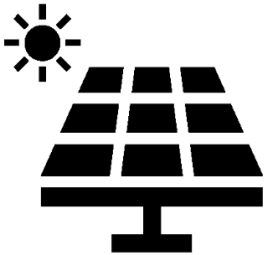
Topic Area 2

Innovative Energy Technology Packages

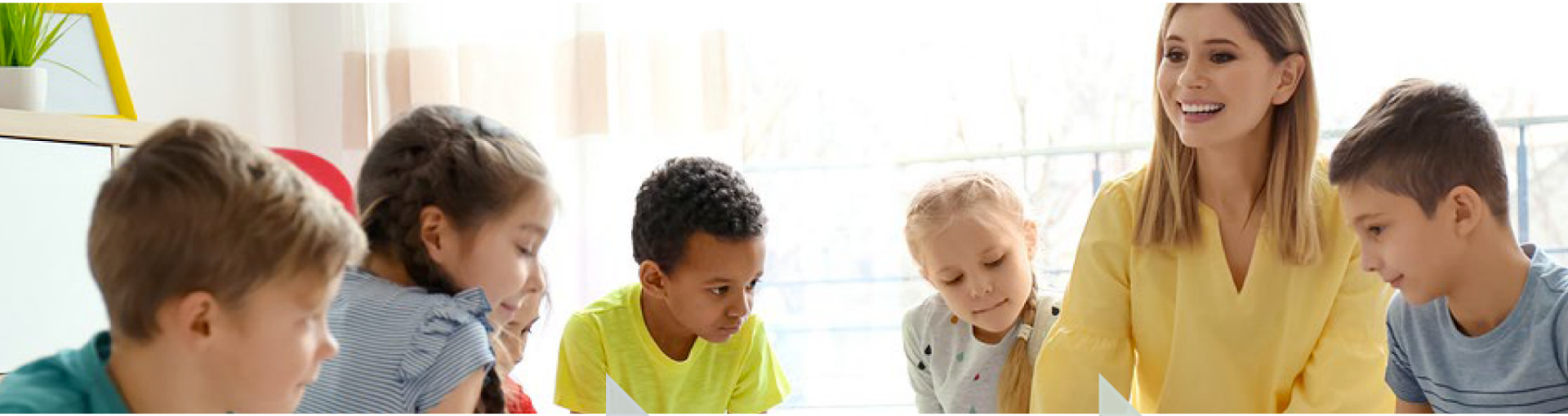
Renew America's Schools – Topic Area 2

Proposals contemplated under this topic include innovative energy technology packages. Applicants may include any improvement, repair, or renovation to a school that incorporates two or more of the following energy improvements:

- Energy efficiency measures, e.g.., HVAC, building envelope improvements, lighting retrofits, sensors and controls
- **Installation of renewable energy technologies, e.g., rooftop solar or micro wind turbines**
- Alternative fueled vehicle infrastructure on school grounds
- Purchase or lease of alternative fueled vehicles to be used by a school



Renew America's Schools – Topic Areas



Topic Area 1

High-Impact Energy Efficiency and Health Improvements

Topic Area 2

Innovative Energy Technology Packages

Energy Champions Leading the Advancement of Sustainable Schools (CLASS) Prize

- Created in response to **overwhelming need for staff and training** around energy management in schools.
- Technical assistance programming **meant to complement Renew America's Schools FOA** funding for capital improvements.
- Seeks to build capacity within local educational agencies (LEAs) to **identify and implement energy and health improvements** in their facilities and classrooms.
- Provides resources to staff and **train personnel on operations and maintenance, strategic energy management, project development, funding pathways, and related topics** to deepen bandwidth and knowledge for advancing the fiscal and environmental sustainability of their schools.

Inaugural Winner Cohort Announced May 5th

18 Winners have schools located in a **DAC**

8 Winners are "Large" School Districts with **44,000+ students**

The Winners have a combined Free & Reduced-Price Lunch average of **73%**

8 Winners are in a **Rural Locale**

7 Winners are "Small" School Districts with less than **3,000 students**


Detroit Public Schools Community District
Canajoharie Central School District
Lansing Public School District
East Cleveland City School District
Mascoma Valley Regional School District (SAU 62)
Northeast Washington Educational Service District 101
Milwaukee Public Schools
Southwest Vermont Supervisory Union
Elkhorn Area School District
Irvington Public Schools
Granite School District
Baltimore City Public Schools
Kansas City, Kansas Public Schools
Martin County School District
Albemarle County Public Schools
Paducah Public Schools
Environmental Charter Schools (ECS)
City Schools of Decatur
Orange County Public Schools
San Antonio Independent School District
Natchez Adams School District
Brevard Public Schools
Jackson County School District
Nenana City School District
IDEA Public Schools
AMERICAN MADE
U.S. DEPARTMENT OF ENERGY
Energy CLASS Prize
PHASE 1 WINNERS
SCHOOL

Efficient and Healthy Schools Campaign

EFFICIENT AND HEALTHY SCHOOLS

The Campaign . . .

- aims to improve energy performance, reduce carbon emissions, and promote a healthy learning environment in schools.
- engages K-12 schools especially those serving low-income student populations and in rural areas.
- is led by the U.S. Department of Energy with technical support from Lawrence Berkeley National Laboratory. Organizing partners:

How We Can Help

EFFICIENT AND HEALTHY SCHOOLS

We provide technical assistance, tools and resources to K-12 schools maximizing energy, health, and resilience benefits through facilities improvements.

Direct expert consultation:

- Review of design documents on building retrofits
- Recommendations on IAQ monitoring
- Proven approaches to improve indoor air quality through ventilation, filtration, and air cleaning
- Energy analysis of systems, e.g. changes to HVAC operation, PV production
- Assist participants on creating plans to improve energy efficiency, health, and resilience
- Energy benchmarking using EnergyStar Portfolio Manager
- Connections with other DOE efforts, e.g., Integrated Lighting Campaign, Better Climate Challenge

Resources and Tools

EFFICIENT AND HEALTHY SCHOOLS

Connected with tailored resources

- Energy savings data on technology and approaches
- Energy use and life cycle cost for cooling and ventilation
- Integrating air cleaning with smart ventilation
- Information on energy analysis tools
- Literature on how energy efficiency and school facilities upgrades can impact health and learning

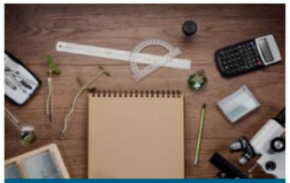
Access to Full Resource Hub

- Retrofit approaches, financing, and case studies


HVAC


Lighting


Indoor Air Quality

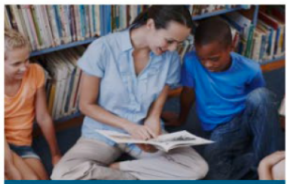

Assessment and Analytics


Financing


Energy Savings Performance Contracting


Decarbonization


Resilience


Case Studies

Call to Action

School Updates

Sign-up for updates for about the Renew America's School program

https://www.energy.gov/scep/renew-americas-schools

Campaign

Join the Efficient and Healthy Schools Campaign as a Participant or Supporter

2022/2023 Recognition | Healthy Schools (lbl.gov)

1. Your Own Cash

Public schools in Pennsylvania use the uniform *Chart of Accounts for PA Local Educational Agencies* to report their financial picture to the Commonwealth and the public. Pages D-6 to D-8 describes how to report their fund balance and net position.

Most relevant categories:

- Code 0793 - Restricted for Capital Projects
- Code 0850 - Unassigned Fund Balance

Check with your CFO

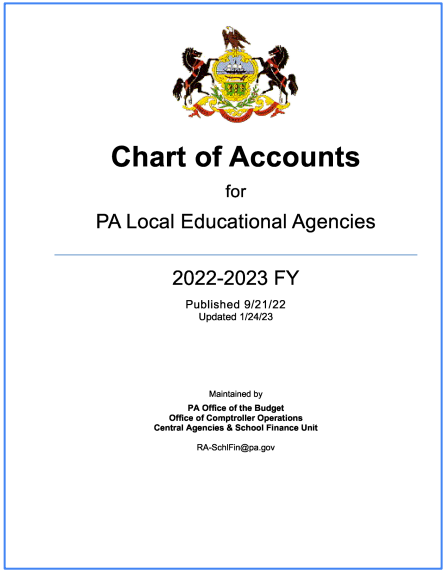
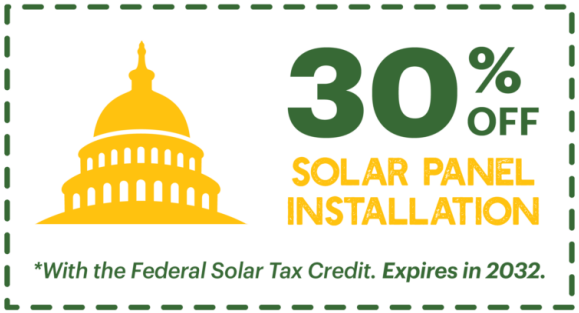


Chart of Accounts
for
PA Local Educational Agencies
2022-2023 FY
Published 9/21/22
Updated 1/24/23
Maintained by
PA Office of the Budget
Office of Comptroller Operations
Central Agencies & School Finance Unit
RA-SchlFin@pa.gov

2. Elective Payments Under the Solar ITC

- The federal Investment Tax Credit (“ITC”) for alternative energy has been around since 1978 - but the most significant changes to the ITC, especially for schools and other nonprofits, were made by the Inflation Reduction Act (“IRA”) in 2022.
- The IRA made the ITC applicable to tax-exempt entities like schools by directing the IRS to issue cash incentives - called **“Elective Payments”** (earlier name was “Direct Payments”) - to entities that do not pay federal income taxes.
- The IRA also increased the level of the solar investment tax credit to **30% through 2032** and providing for several **“adders”** that can further increase the percentage that can be claimed.

a. The 30% Base Credit



Two threshold requirements:

1. The project must have have an Alternating Current ("AC") generating capacity of less than 1 megawatt ("MW_{AC}"); or
2. For projects 1 MW_{AC} and larger, the project must satisfy prevailing wage and apprenticeship requirements.

30% Base Credit (cont.)

Prevailing Wage requirements:

1. Federal Davis-Bacon Act prevailing wage levels and filing/verification process
2. Since public schools in Pennsylvania are mandated to pay prevailing wages for all their capital projects, this requirement should not add to the project costs.

30% Base Credit (cont.)

Apprenticeship requirements:

1. Depending on when the solar project construction begins, 10%, 12.5% or 15% of the total labor hours must be performed by qualified apprentices (the Apprenticeship Labor Hours Requirement).
2. Projects must also adhere to required apprentice/journeyworker ratios (the Apprenticeship Ratio Requirements).
3. Any participating contractor and subcontractor who employs four or more individuals to perform construction, alteration, or repair work with respect to the construction of a qualified facility must employ one or more qualified apprentices to perform such work (Apprenticeship Participation Requirements).

Situations that reduce the 30% credit

- If a project is 1MW$_{AC}$ or larger and the solar installer fails to pay prevailing wages for construction or satisfy the apprenticeship requirements, the ITC 30% percentage is reduced to **6%**.

- If schools (and other tax-exempt entities) finance their project with tax-exempt financing, the ITC 30% percentage is reduced to **10%** on that portion of the total project cost that was financed by tax exempt financing.

30% Base Credit - Key Links

General:

- The White House - Clean Energy Updates page - https://www.whitehouse.gov/cleanenergy/clean-energy-updates/
- The White House - *Building a Clean Energy Economy: A Guidebook To The Inflation Reduction Act's Investments In Clean Energy And Climate Action* - https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf

Prevailing Wage / Apprenticeship Requirements:

- IRS Guidance 2022–61 - Prevailing Wage and Apprenticeship Initial Guidance Under Section 45(b)(6)(B)(ii) and Other Substantially Similar Provisions - https://www.govinfo.gov/content/pkg/FR-2022-11-30/pdf/2022-26108.pdf
- PA Department of Labor - Bureau of Labor Law Compliance - Prevailing Wage Projects website - https://www.dli.pa.gov/Individuals/Labor-Management-Relations/llc/prevailing-wage/Pages/default.aspx

b. The 10% Adder for Domestic Content

Two specified domestic content thresholds:

1. **100% of any iron/steel** products that are components of the project must be produced in the US.
2. **40% of the total cost of all "manufactured products"** that are components of the entire "facility" must be produced in the US.

Domestic Content Adder (cont.)

Three caveats:

1. If a project does not qualify for the 30% tax credit level, the 10% domestic content adder is reduced to **2%**.
2. The domestic content requirement for manufactured components under this adder is scheduled to increase from 40% to 55% in 2027.
3. Biggest hurdle is getting manufacturers to disclose the cost breakout of domestic and imported components.

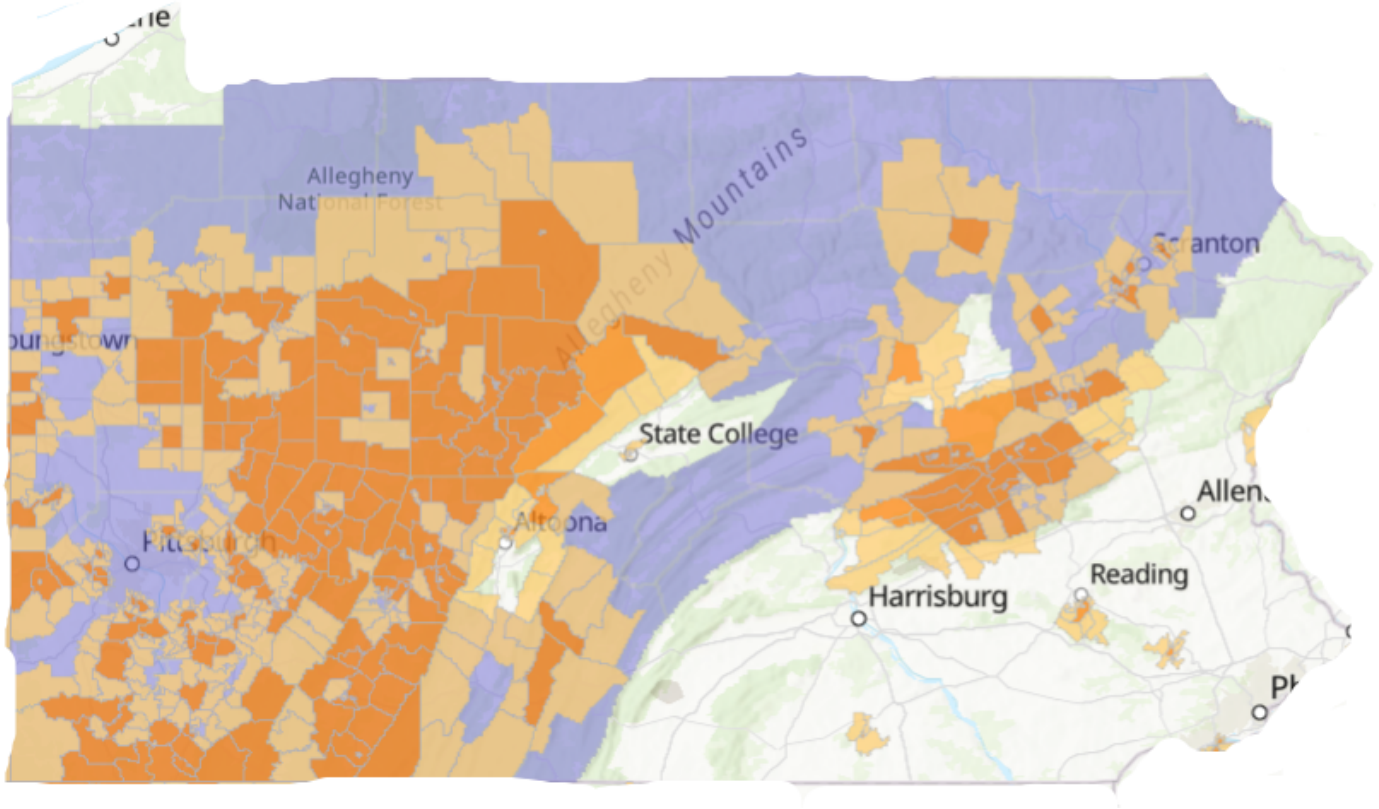
- IRS Notice 2023-39 - Domestic Content Bonus Credit Guidance under Sections 45, 45Y, 48, and 48E - https://www.irs.gov/pub/irs-drop/n-23-38.pdf

c. The 10% Adder for Energy Communities

An energy community is defined as:

- A Census tract — and any adjacent census tracts — in which any **coal mine** has closed after December 31, 1999 or in which any **coal power plant** has been retired after December 31, 2009.
- Metropolitan Statistical Areas (“MSAs”) and non-MSAs where, after December 31, 2009, **industries tied to fossil fuels** have accounted for (a) at least 0.17% of direct employment or 25% of local tax revenue; and (b) where the **unemployment rate is above the national average** for the previous year.
- **Brownfield sites** (as defined by 42 U.S.C. § 9601(39)(A)).

NETL Energy Community Tax Credit Bonus Map



LEGEND

al Closure Energy Communities

act Status

Census tract directly adjoining a census tract with a coal closure

Census tract with a coal closure

A/Non-MSAs that are Energy Communities

atus

MSAs/non-MSAs that meet both the Fossil Fuel Employment (FEE) threshold and the unemployment rate requirement

NOTE: Brownfields not shown on map.

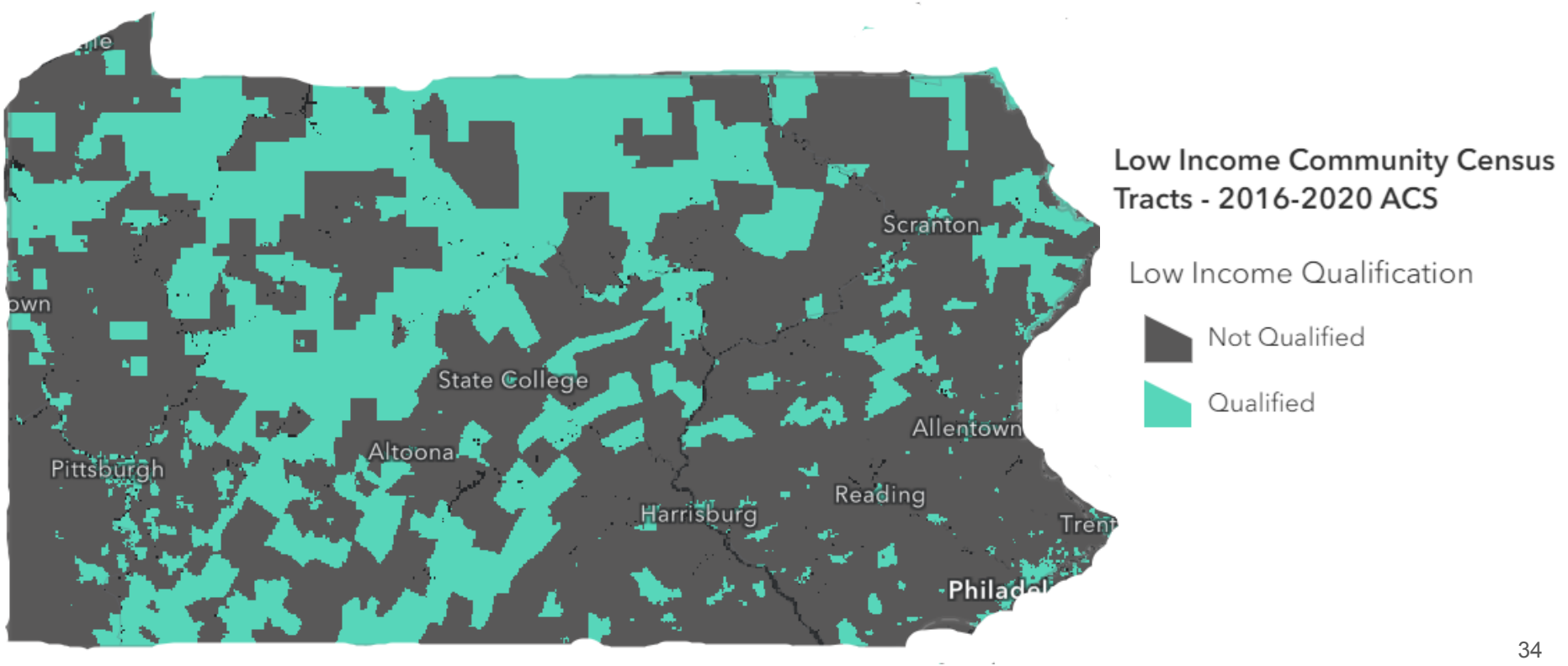
Energy Communities Adder - Key Links

- IRS Notice 2023-29 - Administrative, Procedural, and Miscellaneous Energy Community Bonus Credit Amounts under the Inflation Reduction Act of 2022 - https://www.irs.gov/pub/irs-drop/n-23-29.pdf
- National Energy Technology Lab map of Energy Communities - https://energycommunities.gov/energy-community-tax-credit-bonus
- PA Department of Environmental Protection inventory of 1,091 brownfield sites in PA - https://properties.zoomprospector.com/pa?page=1&s%5BSortDirection%5D=false&s%5BradiusLat%5D=0&s%5Bradius%5D=0&s%5BradiusLng%5D=0&s%5BSortBy%5D=name&s%5BSizeUnits%5D=1

d. The 10% Competitive Adder for Low Income Communities

- A low-income community is defined as those census tracts where:
  a. the poverty rate is at least 20 percent, or
  b. the median family income does not exceed 80 percent of statewide median family income.
- Unlike the other adders which can be claimed as of right if the requirements are satisfied, the Low Income Community adder is limited to two years and is awarded through a **competitive process.**
- The total credits awarded are capped at **700 MW** of project awards in 2023 and again in 2024 (and 0 MW thereafter).
- The application period for the 2023 awards is likely to take place late 2023.

Low Income Communities - PA



Low Income Community Adder - Key Links

- IRS Proposed Rulemaking: Additional Guidance on Low-Income Communities Bonus Credit Program - https://www.federalregister.gov/documents/2023/06/01/2023-11718/additional-guidance-on-low-income-communities-bonus-credit-program
- Low Income Communities map - https://www.esri.com/arcgis-blog/products/arcgis-living-atlas/decision-support/mapping-low-income-communities-in-the-us/

e. The Process for Claiming an Elective Payment

1. The elective payment is treated as an **overpayment of the taxes** owed by the school. Learn your School District's Tax Year, applicable federal Tax Form and filing date.
2. Complete a pre-filing registration for each project on-line through an IRS electronic portal prior to filing your tax return. Provide specific information about the school, its tax status, the credit being claimed, the project (including its beginning of construction date and its placed-in- service date) and other information.
3. Complete construction and place the project in service.

Process (cont.)

4. Make the elective payment election in the federal tax return for the tax year during which the project was completed and was placed in service.

5. After the return is processed, the IRS will issue a tax refund equal to the amount the school is entitled to under the federal solar investment tax credit.

6. IRS reserves the right to audit all claims for elective payments. If a school is found to have received an elective payment larger than what it can legally claim, the Proposed Regulations require repayment of the excess payment plus a **penalty equal to 20%** of the excess payment.

Elective Payment - Key Links

- IRS Proposed Regulations - ITC elective payment – Fed Register – 06/21/23 - https://www.govinfo.gov/content/pkg/FR-2023-06-21/pdf/2023-12798.pdf

3. Grants
    a. Utility Act 129 Commercial Solar Grants

EDC	Rebate per kWh (first year only)
PECO	$0.10 / kWh
Duquesne Light	$0.05 / kWh
First Energy (Met-Ed, Penelec, Penn Power, West Penn Power)	$0.03 / kWh
PPL	$0.03 / kWh

3.c. Other Possible Grants

- Coming soon - PA is developing a comprehensive plan on deploying grant dollars it receives (and can compete for) under the Infrastructure Investment and Jobs Act (“IIJA”) and the Inflation Reduction Act (”IRA”)
- Possible PA legislation - Rep. Elizabeth Fiedler’s Solar for Schools Grant Program bill - HB1032