

Pennsylvania Energy Development Authority Board of Directors Meeting

February 22, 2024



The Authority's mission is **to expand the market for Pennsylvania's clean, diverse, indigenous energy resources, and to**make contributions to energy conservation, energy efficiency, resiliency and development.

Agenda

- I. Welcome/Roll Call
- II. Approval of Minutes of November 13, 2023 Board Meeting
- III. Financial Update
- IV. Election of Officers
- V. Business Development Opportunities
- VI. Energy Accelerator Program (EAP): Structure and Planning
- VII. EAP Product 1 Update
- VIII. EAP Product 2 Proposal: Municipal Energy Financing
- IX. Solar for All Application Update
- X. New Business
- XI. Public Comment
- XII. Adjourn



Call to Order - Roll Call

Ex-Officio Members:

- Jessica Shirley (DEP -- Chair)
- Rick Siger (DCED)
- Russell C. Redding (PDA)
- Wendy Spicher (BAS)
- Stephen M. DeFrank (PUC)
- Patrick Cicero (Consumer Advocate)

State House:

- Rep. Joshua Kail
- Rep. Elizabeth Fiedler

State Senate:

- Sen. Carolyn Comitta
- Sen. Gene Yaw

Appointed by Governor and Confirmed by Senate:

- Laureen M. Boles
- Virginia L. Brown
- Romulo L. Diaz, Jr.
- Sarah Hetznecker
- Bernie M. Lynch
- Vacant
- Vacant
- Vacant
- Vacant

FY 2023-24 PEDA Budget Overview

Available PEDA Funds \$2,935,065

Planned Admin Expenditures - \$135,000

Grant Commitment (Hydro Green) - \$499,913

Contract Commitment (PFM) - \$168,440

Contract Commitment (NEIF) - \$237,848

Planned EAP "Product 1" Fund -\$1,000,000

Net Balance: \$893,864



2024 Officer Elections

- Secretary
- Treasurer



PEDA Business Development Opportunities

Governor's Office of Critical Investments

Commonwealth of Pennsylvania
Office of the Governor
Executive Agencies/Office of the Budget

Liabilities to Assets



Developing Innovative Ideas



Building Strong Relationships



Working with Partners







Maximizing Impact from the Inflation Reduction Act

Opportunities for Pennsylvania

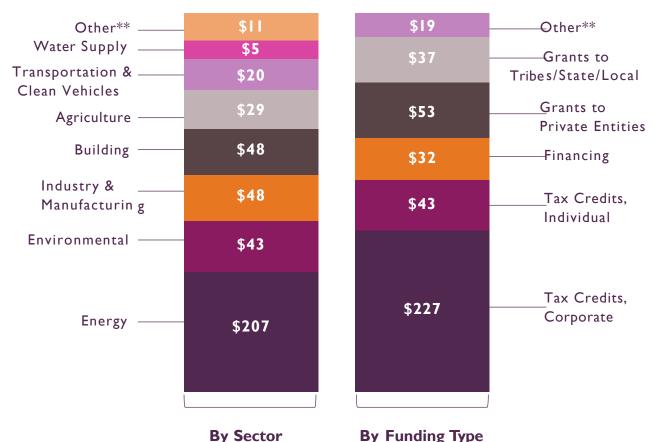
Prepared with support from **The Heinz Endowments**

Overview of IRA Funding

- What: The IRA directs ~\$400 billion in new federal spending nationwide to catalyze domestic energy product, increase domestic manufacturing capacity, encourage procurement of critical supplies domestically or from free- trade partners, and jump-start the expansion, R&D, and commercialization of leading-edge clean energy technologies across various sectors.*
- How: Funding mechanisms for the IRA include tax credits, grants, and loans, featuring key provisions like direct pay and stackable bonus credits that expand eligibility and enhance financial incentives for certain activities. For many programs, states are eligible to apply directly or can partner with local governments and the private sector to maximize benefits for their communities.
- Who: Entities eligible for funding include states, local governments, nonprofits, businesses, consumers, households, higher education institutions, and tribal governments.

~\$400 Billion in National IRA Funding by Sector & Funding Type

(\$ in billions)



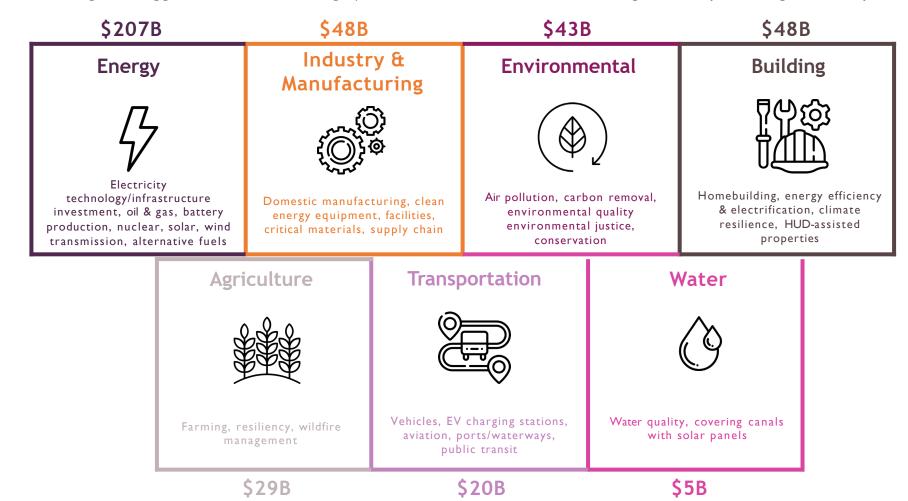
Source: C40 Cities Climate Leadership Group Inc

^{*}The Inflation Reduction Act also includes significant provisions related to prescription drug prices and federal tax policy and administration. This resource does not address those provisions because they do not include direct investments available to entities in Pennsylvania, nor do they have a direct role for these entities to play.

^{**}Other includes funding for federal operations.

IRA Sectors Supported

Nationally, the IRA supports a wide variety of sectors and sub-sectors with clean electricity, transmission, and clean transportation programs commanding the biggest slices of funding. (Amounts are for total IRA funding, not only funding in Pennsylvania.)



IRA Funding Mechanisms

IRA funds will be delivered through a mix of tax incentives, grants, loans, and cooperative agreements.

	Overview	Highlights	
Tax Credits	 Largest funding mechanism in the IRA primarily coming from investment tax credits (ITC) and production tax credits (PTC) available to businesses, individuals, and tax-exempt entities 	 PTC and ITC tax credits are structured to incentive investment in disadvantaged communities and job creation including additional bonuses for wind and solar projects in low- income communities 	
	 Introduced novel funding mechanisms and provisions such as direct pay, bonus credits, and stackability that have increased the pool of eligible recipients and massively amplifies money received via incentive-based structures 		
Grants	 Grants provide government funding to stakeholders that are not expected to be paid back and come in subtypes that include (i) non-competitive grants awarded to state and local governments often utilizing a "formula" to determine size and eligibility (ii) competitive grants awarded by federal agencies via application processes to eligible entities (e.g., implementation grants) and (iii) rebates processed after a transaction is complete 	 The EPA's \$27B Greenhouse Gas Reductio Fund will award competitive grants to projects reducing greenhouse gas emissions with an emphasis on low income and disadvantaged communities across the country 	
Loans	 Basic loans offering flexible financing options to support critical clean energy, manufacturing and clean vehicle projects will largely be administered through the Department of Energy's Loan Programs Office (DOE's LPO) 	 DOE's LPO has \$40B in loan authority and \$3.6B in credit subsidy for loan guarantee for clean energy projects nationwide 	
	 DOE's LPO may also provide loan guarantees to protect lenders from potential borrower defaults, expanding financing for riskier innovation projects 	including renewables, carbon capture, nuclear, critical minerals processing, and manufacturing, & recycling	
Cooperative Agreements	While similar to grants, cooperative agreements differ in that they provide substantial involvement between the federal awarding agency or pass-through entity and the non-federal entity in carrying out the purpose of the agreement	 \$5.8B Advanced Industrial Facilities Deployment Program to support projects that reduce greenhouse gas emissions through installation and implementation o advanced industrial technologies 	

RA = Registered Apprenticeship

PW = Prevailing Wage

DC = Domestic Content

LI = Low Income or Tribal Communities EC = Energy Communities

The IRA's bonus credits are **stackable** for certain base credits, meaning that they can be combined with one another. This allows projects to massively amplify the amount of money they receive. At the high end, some small-scale solar and wind projects claiming the IRA's Investment Tax Credit for Energy Property could qualify for all five bonus credits and receive 70% of the total investment back in tax credits.*



70% of total investment returned in tax credits

^{*}Eligibility depends on the project type and specifics. Most of the IRA's base credits only are not eligible for multiple bonus credits.

Key Provision: Bonus Credits

Bonus credits can be applied to some of the IRA's base tax credits for clean energy projects that meet goals related to workforce, labor, priority communities, and domestic industries. The appendix lists which bonus credits can be applied to each base credit.

Bonus Credit	Eligible Projects	Maximum Bonus Amount Up to 5 times base credit*	
Registered Apprenticeship	Projects that employ apprentices from registered apprenticeship programs for a certain number of hours		
Prevailing Wage	Projects that pay laborers and mechanics employed in construction, alteration, or repair at least the prevailing wage rate in their area	Up to 5 times base credit*	
Domestic Content	Facilities built using required amounts of domestically produced steel, iron, and manufactured products	10 percent or 10 percentage points, depending on base credit**	
Low Income or Tribal Communities	Facilities in low-income communities and tribal communities, including facilities that are part of affordable housing developments or benefit low-income households	IO percentage points or 20 percentage points** (if part of LI residential buildings or providing service to LI households)	
Energy Communities	Projects located in communities historically dependent on fossil energy jobs and tax revenues, including areas with closed coal mines or coal-fired power plants, and on brownfields	10 percent or 10 percentage points , depending on base credit**	

^{*}Most (but not all) tax credits eligible for RA and PW bonus credits must meet both bonus credits' requirements at the same time, resulting in a total of 5 times the base credit for both bonuses combined.

^{**}There is a difference between percent and percentage point increases; a 10 percentage point increase is worth more than a 10% increase.

Key Provision: Direct Pay

Direct pay (also called "elective pay") allows tax-exempt entities — local governments, state governments, rural electric cooperatives, territories, Tribal nations, and nonprofits — to receive the full value of 12 IRA tax credits. Funds are available on a non-competitive basis and can be accessed by filing tax returns with the IRS.

Example projects:



Generating clean electricity through solar, wind, and battery storage



Building community solar projects that bring clean energy to neighborhoods

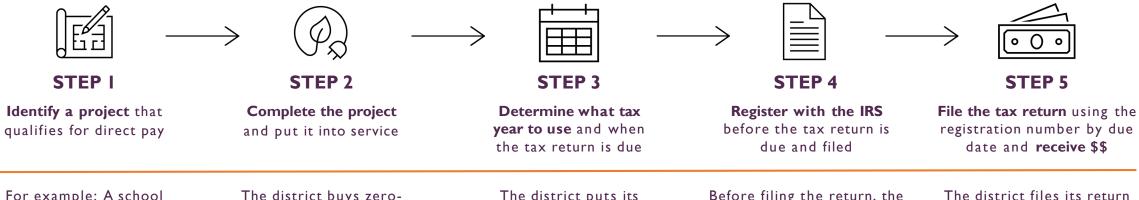


Installing electric vehicle charging infrastructure



Purchasing clean vehicles for state or city vehicle fleets

How to use direct pay:



For example: A school district wants a new zeroemission vehicle fleet The district buys zeroemission vehicles, which come online in 2024 The district puts its purchase on its 2024 return, due on April 15, 2025

Before filing the return, the district registers its project with the IRS

by April 15, 2025 and receives up to \$40,000 in credits

Opportunity: Fueling Clean Energy Investments for Schools

Examples:

- Solar panels to offset electric consumption
- Geothermal heat and/or cooling systems
- Electric Buses and Vehicles

What We Can do:

- Leverage our State Energy Finance Institution (SEFI) designation to finance school projects
- Manage and/or monetize tax credits on behalf of school districts
- Provide technical assistance in cooperation with PA Solar Center and others

Opportunity: Leveraging Commonwealth Assets

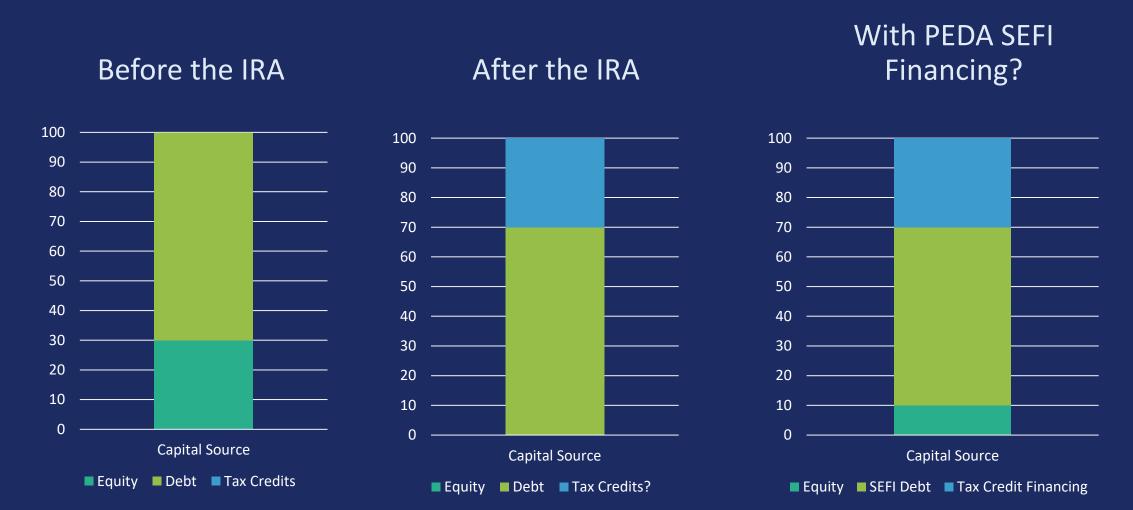
Examples:

- Non powered dams owned by DEP, DCNR and local governments
- Hundreds of thousands of acres of abandoned minelands
- Supporting municipal projects

What We Can do:

- Leverage our State Energy Finance Institution (SEFI) designation to finance projects
- Manage and/or monetize tax credits
- Build relationships with vendors, service providers to bring emerging technologies to the PA Market

Potential Role for PEDA



"Only by setting the table of opportunity and inviting all to sit and partake, can we ...tackle big challenges again and dream of brighter, more prosperous tomorrows."

-Josh Shapiro, Governor Inaugural Address, 01/17/23



Thank You



Energy Accelerator Program

("EAP" or "Energy Accelerator")



PEDA's Energy Accelerator Program (EAP)

- The Energy Accelerator is designed as a warehouse of programs to accelerate the use of clean energy throughout the Commonwealth
- Harness significant Federal Funding program resources
- Leverage Inflation Reduction Act of 2022 (IRA) tax incentives







Drive Value

Transform the Market

Provide Public Benefits

Expand investments in clean energy at a lower cost

Drive more value for the

public by preserving /
growing its capital by
operating as a self-sufficient
financing entity

A formal, standardized, scalable and more predictable clean energy financing set of tools with outcomes which can be measured in terms of reduced cost of capital

The clean energy deployed will generate public benefits, such as a cleaner environment, a more resilient energy system, economic benefits (e.g. creation of jobs) and lowered energy costs

Attract Private Capital and Partnerships

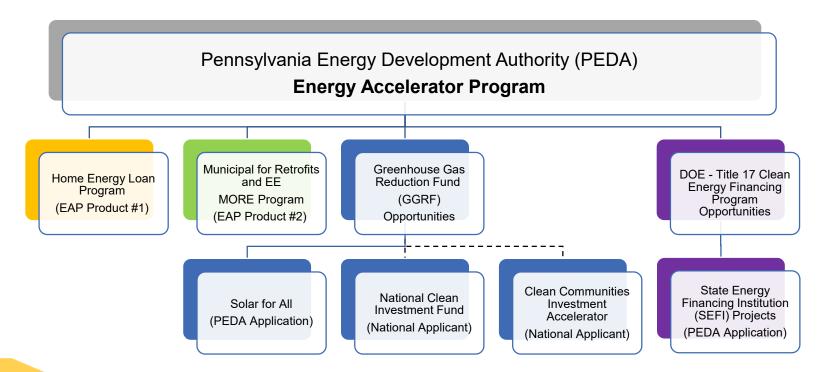
Programs designed to attract private investors and leverage the resources of private, philanthropic and mission-driven financial institutions

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Inaugural EAP Program/Products

- PEDA's EAP Product #1 and EAP Product #2 are expected to total \$10 million and \$15 million, respectively.
- PEDA hopes to receive funding from the EPA's Greenhouse Gas Reduction Fund opportunities
 - \$250 million under the Solar for All program
 - National Clean Investment Fund / Clean Communities Investment Accelerator
- PEDA is exploring a \$100 million loan guaranteed by the Department of Energy to facilitate seed funding for a Solar for Schools Program



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Key Steps Across Five Areas to Launch Programs



Leadership Establishment & Staffing

Establish Advisory Group

Determine in-house functionality and staffing levels Recruit key personnel Hire staff



Strategy & Organizational Structure

Conduct capability diagnostic

Finalize organizational structure

Develop Board / Advisory group charter, investment and operating strategy

Establish planning and reporting structures

Establish risk management protocols



Operations Launch

Legally establish organization if required

Capitalize the programs

Set up financial accounts e.g., bank accounts

Document operational policies & procedures e.g., financial, HR

Implement and test management processes, e.g., financial, record keeping



Program Launch

Finalize initial program suite

Coordinate partnerships

Launch initial program



Communications

Create communication materials and protocols, including website

Determine inquiry and response processes

Develop application processes

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FOR PENNSYLVANIA HOMEOWNERS

Trusted, transparent and affordable monthly payment options for upgrades that make your home more energy efficient.

The KEEP Home Energy Loan is supported by the Pennsylvania Energy Development Authority (PEDA)'s Energy Accelerator Program



Pennsylvania Energy Development Authority







KEYSTONE ENERGY EFFICIENCY PROGRAM
Supported by PEDA • Powered by **NEIF**

As an approved contractor of the National Energy Improvement Fund, we have met NEIF's standards of commitment to quality work and customer service, financial stability and personal integrity.



APPROVED CONTRACTOR



APPROVED CONTRACTOR

Special Financing for Energy Efficiency Upgrades for Pennsylvania Homeowners

keepenergyloan.org

Pennsylvanians can

Go Greener, Affordably

with fixed monthly payment financing for improvements that make your home more energy efficient.

Eligibility

One to four unit primary or secondary (vacation) home, Pennsylvania-deeded properties. Owner-occupied, no investment properties. Must be affixed to a permanent foundation. Unsecured loans—property type is for qualification purposes only—no lien is filed. Properties owned or held in trust are not eligible. Applicant must meet all credit guidelines. Work must be performed by a NEIF-Approved Contractor who must certify that the primary improvement is listed at energystar.gov/products at time of installation. Financing may include all related work required for installation.

Heating/Cooling/Water Heating

- Air-Source Heat Pumps
- Boilers & Furnaces
- Central Air Conditioning
- Ductless Heating & Cooling
- Smart Thermostats & Ventilation Fans
- Heat Pump Water Heaters
- High Efficiency Gas Storage Water Heaters
- Solar Water Heaters
- Whole Home Tankless Gas Water Heaters

Building Products/Other

- Residential Windows, Doors, and Skylights
- Seal and Insulate
- Storm Windows
- Electric Vehicle Chargers
- Smart Home Energy Management Systems

Supported by the Pennsylvania Energy Development Authority (PEDA)'s Energy Accelerator Program

Lending administered by National Energy Improvement Fund (NEIF), a Pennsylvania-based B Corporation™, certified to meet the highest standards of compliance and fair lending and a U.S. Department of Energy Home Improvement Expert.



KEYSTONE ENERGY EFFICIENCY PROGRAM
Supported by PEDA Powered by NEIF

Monthly Payment Examples

Loan Amount	36 Months	60 Months	120 Months
\$2,500	\$79	\$52	\$32
\$5,000	\$159	\$104	\$63
\$7,500	\$238	\$156	\$95
\$10,000	\$318	\$208	\$127
\$12,500	\$397	\$259	\$158
\$15,000	\$477	\$311	\$190
\$17,500	\$556	\$363	\$222
\$20,000	\$636	\$415	\$253
\$25,000	\$795	\$519	\$317
\$25,000	\$795	\$519	\$3.

All loans are made directly to the consumer by National Energy Improvement Fund, LLC. Payment estimates based on 8.99% APR. Rates subject to change.



Three Simple Steps

- Choose the payment that fits your budget. You can pay off early or pay ahead with no penalty.
- Apply to NEIF for an instant credit decision through your contractor's application link or at keepenergyloan.org
- Sign electronic loan documents from NEIF. NEIF pays your contractor when the work is completed to your satisfaction.

100% financing available, instant credit decisions, easy paperless process and responsive communication with you and your contractor.

Launch of PEDA's Energy Accelerator "Product 1"

- Point of purchase consumer loans for energy efficiency upgrades
- No lien field on property
- Tentatively titled KEEP Home Energy Loan (Keystone Energy Efficiency Program)
- Waiting for final sign-off from DEP communications
- Expected statewide launch end of March
- Below market interest rates to incentivize high-performing ENERY STAR upgrades for credit qualified homeowners
- Statewide availability and focus
- Leveraging PEDA capital 10X
- Estimated approval rate 75%





- Typical energy home improvement installations (\$2,500 to \$25,000) fall into the consumer's financing "twilight zone" - too big for a credit card, too small for a home equity loan
- Customer doesn't want a lien on their home
- Time sensitive consumer needs work done ASAP
- Contractors have great influence on the decision
- Promotional ("Teaser Rate" or "Same as Cash") financing is an option for buyers with readily available cash to pay off after promotional period, but does not address buyers who are looking for longer term affordability for a major capital purchase of high efficiency upgrade
- Borrowers want longer term or lower rate than they can get from bank



PROGRAM AND MARKET-BASED FAIR, EFFICIENT & COMPLIANT LENDING



WE MAKE ESSENTIAL ENERGY UPGRADES AFFORDABLE

As a benefit corporation (Certified B Corp), NEIF serves all income levels including low-moderate income borrowers, where access to affordable energy upgrades is vital. Low and moderate-income households accounted for 52% of all loans in 2023.

Low

26%

Moderate

26%

Above Moderate

48%

WE ARE EXPERTS IN UTILITY AND STATE PROGRAMS

NEIF administers financing programs for some of the nation's largest utilities for both commercial and residential customers and is actively working with states to implement "green banks" and upcoming federal funding such as IRA and infrastructure dollars.





WE SUPPORT SMALL BUSINESS & JOB DEVELOPMENT

NEIF currently supports over 1,700 contractors, the vast majority of which are small businesses. NEIF helps businesses grow by offering trusted, affordable customer financing, advance rebate funding to improve contractor cash flow and ongoing training and support on best-practices in energy efficiency business development.





- As a Certified Benefit Corporation (B-Corp), NEIF meets the highest third-party verified standards of social and environmental performance, transparency, and accountability.
- Consumers apply directly to NEIF through a secured application page
- All loans are made directly to the consumer by NEIF for work performed by authorized contractors
- NEIF reviews qualifying job scope and improvements on every application
- All loans are covered by the Federal Right to Cancel, which means there is a mandatory three-day period for a customer to change his or her mind.
- Payment is made to the contractor only upon customer sign off on satisfactory completion of project.

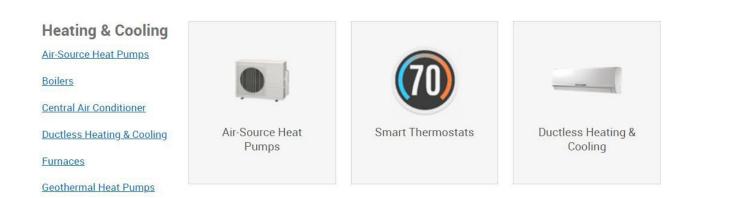


count for a clean energy future.

Room Air Conditioner

Products financed must meet ENERGY STAR standards









Contractor Standards and Diligence

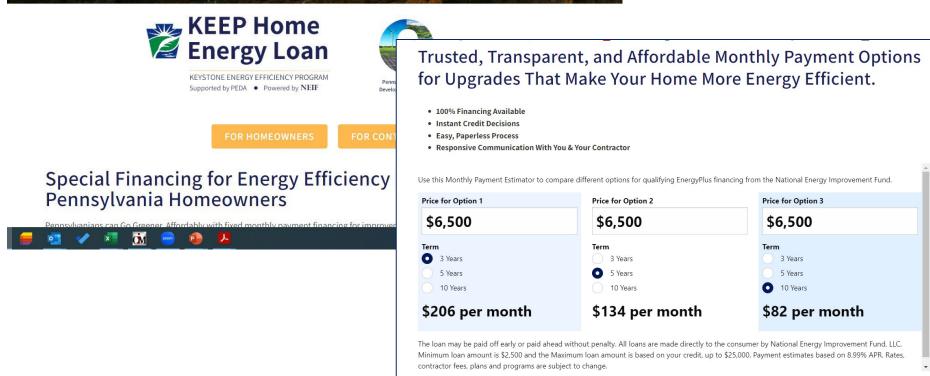
- Contractors who have earned the NEIF Seal of Approval are qualified contractors of all sizes who have been vetted and authorized to perform work under NEIF's programs.
- NEIF currently has an approved network of 200 Pennsylvania energy efficiency contractors. This is projected to grow to a state-wide network of over 1,500 contractors, similar to Keystone HELP.
- These contractors have met NEIF standards for commitment to quality work, customer service and financial stability.
 - Minimum 3 years in business (or relevant experience), history of financial stability, satisfactory insurance, and certification of a minimum \$50,000 company net worth or compensating factors
 - Satisfactory company, Better Business and personal credit (if required) histories
 - Overall reputation for a high level of service and workmanship
 - Verified registration with Attorney General's offices under PA Home Improvement Consumer Protection Act.
- NEIF provides ongoing contractor management and best-practices training through its GoGreener Academy.





Efficient Online Tools and Process

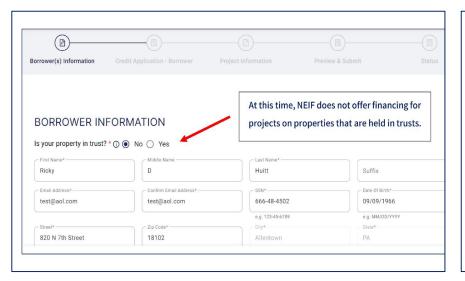


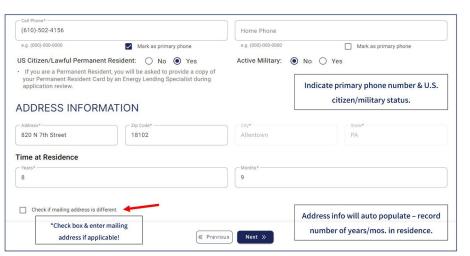


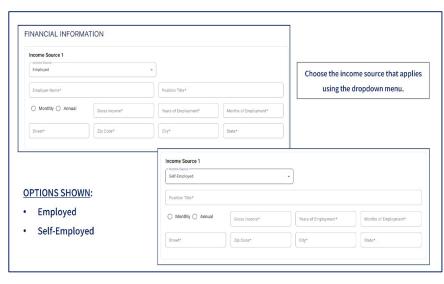


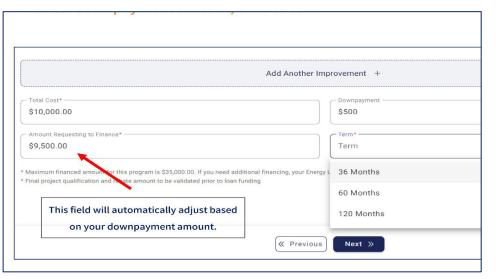


Simple Application Process













Statewide Launch Plan

- Statewide contractor events in April
- Press release in conjunction with PEDA
- Distributor / Manufacturer channels
- PA trade association channels
- SEFs and utility cross-marketing







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neifund.org





EAP Product 2 Proposal

Municipal Energy Financing

What is the MORE Program?

Municipal Opportunities for Retrofits and Energy Efficiency

- Two-part energy efficiency funding program for municipalities
- MORE Grant & MORE Loan using IIJA funding sources:
 - Energy Efficiency Revolving Loan Fund (RLF)
 - Energy Efficiency & Conservation Block Grant (EECBG)
- The MORE grant and loan work together to create the most affordable financing option to address municipalities' energy upgrade needs

Primary goal: improve energy efficiency for local government buildings and facilities by reducing barriers to affordable financing to accomplish **larger, more effective energy efficiency projects**



Who Is Eligible?

- Pennsylvania municipal governments are eligible to apply for the MORE Program, excluding municipalities that are direct recipients of DOE's EECBG program¹
- EPO will prioritize projects in municipalities that represent DOE-defined disadvantaged communities under Justice40 (approx. 102 municipalities)
- Ideally, we want municipal governments who would not typically borrow funds for energy-related upgrades



To determine if a municipality is a recipient of EECBG funding, see funding allocations here: https://www.energy.gov/sites/default/files/2023-01/IIJA%20%2840552%29%20EECBG%20Program_Attachment%201a.%20_Local%20Govt.%20Allocations_FINAL.pdf

MORE Grant

- Approximately \$1.8 million to award
- Must be committed in 180 days
- First come, first served but with reserved funds for priority applicants
- \$50,000 limit for three eligible uses:
 - Level 2 commercial energy audits
 - Project design & MORE Loan application development
 - Interest rate buydown



MORE Loan

- Blends private capital of 3X the approx. \$3 million from DOE
- Loans can be used for:
 - Retrofits
 - Energy efficiency upgrades
 - Renewable energy generation (when paired with EE measures)
- Up to 15-year repayment period or up to the end of the project's useful life



Why MORE As Product 2?

- Meets Product 2 description from RFP
- MORE funding sources are formula grants for PA
 - RLF \$3,353,030
 - EECBG \$3,021,720
- Consolidate financing programs under the EAP
- Admin allowances from funding sources can cover the admin costs associated with Product 2
- Positive responses from stakeholders



Next Steps

- PEDA Board approval for the MORE Program to be Product 2 for NEIF under the EAP
- DOE awards
- PEDA & DEP agreement
- Internal program development
- MORE Program launch



Motion Overview

- Proceed with MORE Program with NEIF
- Execute an agreement for PEDA to assume responsibility for operating the MORE Program
- PEDA's Acting Executive Director to sign the agreement on behalf of PEDA



Motion

The PEDA board authorizes and directs:

- 1. PEDA staff, with the assistance of National Energy Improvement Fund LLC (NEIF) under the current contract between the two entities, to proceed with the development, launch, and administration of the Municipal Opportunities for Retrofits and Energy Efficiency (MORE) Program as part of PEDA's Energy Accelerator Program, dependent upon DEP receiving an award from DOE that would fund the program;
- 2. PEDA staff to execute an agreement between PEDA and DEP under which PEDA will assume responsibility for operating the MORE Program as funded by DEP using approximately \$6,374,750 from federal Infrastructure Investment and Jobs Act (IIJA) funds; and
- 3. PEDA's acting executive director to sign such an agreement on behalf of PEDA.

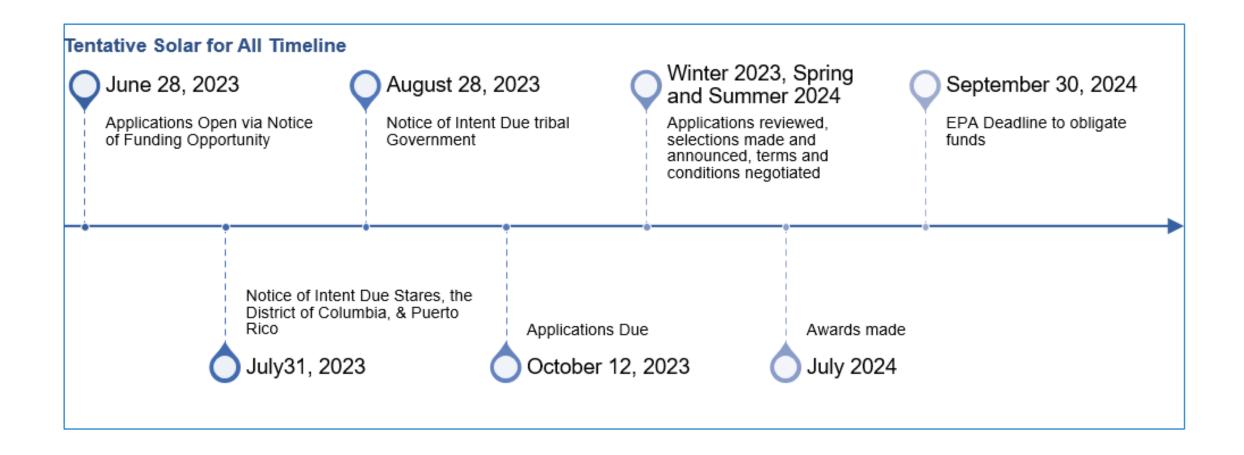


Solar for All

- Purpose: invest in household and community solar projects focusing on low income and disadvantaged communities with grant funds going to:
 - Installation of solar arrays
 - Enabling building upgrades
 - Workforce development
- PEDA applied in a coalition with Phila. Green Capital Corporation (PGCC)
 - Requested \$250M for a statewide program
 - Up to 45% could go to PGCC based on performance metrics
 - Implement a statewide LIDAC solar program learning from PGCC experience
 - Upon award: development of a program for PA while PGCC immediately expands existing program in Phila. and surrounding counties
 - Expectation to install approximately 22,000 household solar arrays over 5 years



Solar for All – Timeline



Other Business

Additional PEDA issues for discussion?

Public Comment

Open floor for public comment

Adjourn

Motion to adjourn

Next scheduled meeting: May 9, 2024









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Geoff Bristow

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Energy Programs Office

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