



Energy Programs Office

Clean Energy Investment Opportunities in Pennsylvania

A Discussion of the Bipartisan Infrastructure Law

Climate Change Advisory Committee
February 22, 2022

Bipartisan Infrastructure Law

Signed into law on November 15, 2021

Allows for \$1.2 trillion in government spending, including:

- ✓ **\$62 billion in clean energy related federal funds to be administered by U.S. Department of Energy (DOE)**
 - Pennsylvania is expected to automatically receive hundreds of millions of dollars, with opportunities to apply for more.
 - DOE's definition of clean energy: *Responsible development of all of America's rich energy resources—including solar, wind, water, geothermal, bioenergy & nuclear*
 - Other federal agencies (Environmental Protection Agency, Transportation, etc.) will administer additional energy-related programs.

Federal Guidance

U.S. Department of Energy priorities for the Bipartisan Infrastructure Law:

- Investing in American manufacturing and workers
- Expanding access to energy efficiency and clean energy for families, communities and businesses
- Delivering reliable, clean, and affordable power to more Americans
- Building the technologies of tomorrow through clean energy demonstrations

Associated spending requirements include:

- Buy American
- Davis Bacon (Requires contractors and subcontractors to pay local prevailing wage)
- NEPA (National Environmental Policy Act – assess environmental impacts of projects)
- Historic preservation (identify, evaluate & preserve, archeological, and cultural resources)
- Justice 40 (40% of funding impact dedicated to benefit EJ neighborhoods)

Clean Energy-Related Funding Groups

Four delivery mechanisms for clean energy funding and their relationship to the Pennsylvania's State Energy Office - DEP's Energy Programs Office:

- 1. Federally administered grant and loan programs:** Funds offered and overseen by Federal agencies. DEP Energy Programs Office and other state agencies are not eligible to apply.
- 2. Competitive or formula grants:** Available to other state agencies, DEP Energy Programs Office is not eligible to apply.
- 3. Competitive grant programs:** DEP Energy Programs Office and partners are eligible to apply for specific subject areas.
- 4. Formula grants to State Energy Offices:** DEP Energy Programs Office is the only recipient and identifies uses (within a list of broad categories).

Competitive or Formula Grant Funds

These funds are available to other state agencies.

- **EV Charging Program:** \$5 Billion via formula - PennDOT \$172 million, annual break down unclear
- **Weatherization Assistance Program:** \$3.5 Billion via formula - Department of Community and Economic Development (DCED) - \$223 million
- **Grid Reliability and Resiliency:** \$2.5 billion via formula, \$2.5 billion competitive - unclear which agency will receive this funding, annual breakdown unclear

Competitive or Formula Grant Funds

Hydrogen Programs:

- **Regional Clean Hydrogen Hubs** - \$8 billion
 - Dedicated to establishing four diverse hubs; fossil fuels, nuclear, renewable; industrial, commercial transportation etc.
 - Priority: Economically distressed communities in major natural gas producing states
 - To support commercialization and deployment
- **Clean Hydrogen Manufacturing and Recycling** - \$500 million, considerable potential in Pennsylvania

Carbon Capture and Use:

- **Air Capture Hubs** - \$3.5 billion
 - Dedicated to establishing four hubs; at least two must be in fossil fuel communities.
 - Priority: Economically distressed communities in major natural gas producing states
 - EPO can work with partners to evaluate using this funding to grow carbon capture, utilization, and storage (CCUS) in PA.

Competitive or Formula Grant Funds

Energy Infrastructure Federal Financial Assistance Program:

- \$5 billion FY22-26 for states (not defined), Public Utility Commissions, and local governments
 - For transmission, storage, and distribution hardening and regional grid resilience

Charging and Fueling Infrastructure:

- \$2.5 billion FY22-26 for Grants to state, local, and public entities to install alternative fuel infrastructure along Federal Highway Administration-designated Alternative Fuel Corridors
 - 50% of funds dedicated to “Community Grants” for publicly accessible alternative fuel charging/fueling projects outside of Alternative Fuel Corridors
 - Priority to rural areas, low and moderate income communities, underserved communities, and multi-unit dwellings

Battery Recycling R&D Grants to States:

- \$60 million for battery recycling research, development, and demonstration programs (states eligible)

▶ Formula Grants to State Energy Offices

EPO will receive approximately \$27 million total from these programs:

State Energy Plan:

- \$18.5 million to help implement programs and initiatives to address energy efficiency and renewable energy sources—energy emergency and resilience planning, industry, buildings, transportation, electric power and renewable energy, energy education, policy, planning, and energy security

Energy Efficiency and Conservation Block Grant Program:

- \$4.7 million to support small local governments and nonprofit programs with grants/rebates/financing for energy efficiency, renewable energy, and zero-emission transportation

Energy Efficiency Revolving Loan Fund:

- \$3.7 million in new funding to capitalize or support a revolving loan fund for commercial & residential energy efficiency loans and audits

EPO's Evaluation Strategy



EPO Guiding Principles

EPO will use Bipartisan Infrastructure Law funds to deliver a more equitable clean energy future.

Areas of focus:

- Energy conservation and efficiency
- Advanced energy technologies
- Energy security and resilience
- Education and outreach
- Climate change mitigation and adaptation

EPO projects will:

- Invest in environmental justice communities to reduce energy burden.
- Expand access to energy efficiency solutions and measures for families, communities, and businesses.
- Increase the generation of reliable, clean, and affordable power.
- Deploy clean and resilient energy infrastructure to combat the effects of climate change.
- Develop a clean energy workforce and manufacturing capabilities.

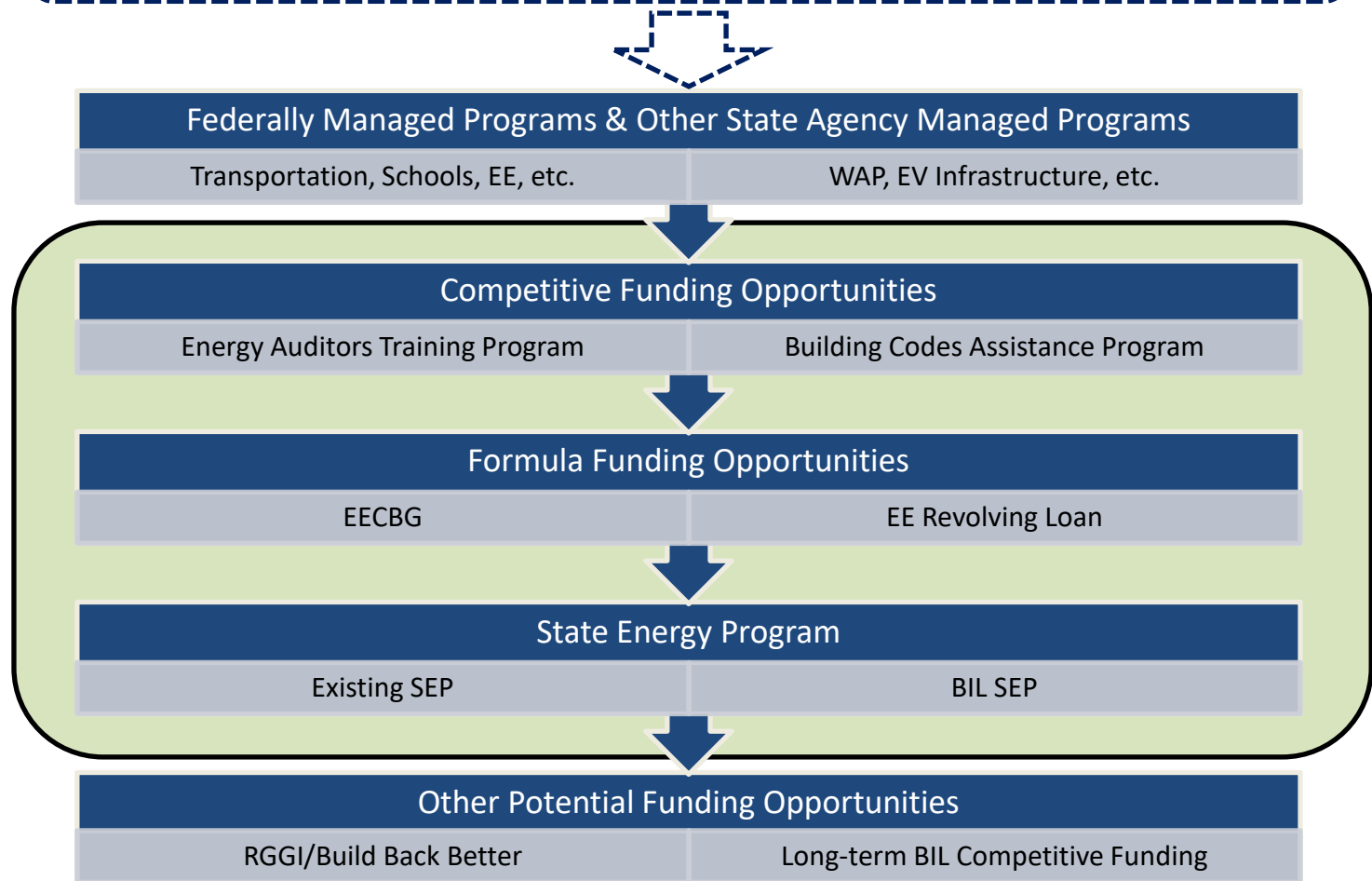
Decision-Making Process

EPO analysis of investment opportunities incorporates ideas from recent reports, experiences, and discussions, including:

- 2020 EPO Clean Energy Program Plan
- 2021 Climate Action Plan
- 2021 RGGI Investment Roundtables and Draft Investment Plan
- Recent and past successful programs and activities managed by EPO
 - Green Energy Loan Fund
 - Alternative Fuels Incentive Grants and Act 13 Programs
 - Driving PA Forward Programs
 - Pennsylvania Energy Development Authority Grants
 - Local Climate Action Planning & Strategic Energy Manager Program
 - Industrial Energy Assessment Program
 - ARRA Green Energy Works! & Conservation Works! Programs
 - Small Business Advantage Grant Program
 - KeystoneHELP
 - PA Sunshine Program
 - Energy Harvest Program

Decision-Making Process

Investment priorities, goals, and ideas from Clean Energy Program Plan, Climate Action Plan, RGGI Investment discussions, etc.



Implementation Options Summary

Increase the generation of reliable, resilient, clean, and affordable power

- Clean energy project grants and financing
- Increase Energy Storage potential and Microgrids
- Renewable energy site assessment & development as a part of redevelopment
- Transmission & Energy Assurance planning

Expand access to energy efficiency solutions for families, communities, and businesses

- Industrial, commercial, and residential Energy Efficiency (EE) programs
- Financing and grants for local governments in EJ communities to assist with renewable energy and EE projects
- EE Rebates for residents, business to save energy and mitigate/adapt to climate change.
- Assist local governments with limited capacity to apply for and receive federal funding
- Increase opportunities for Shared Energy Manager Program, Pooled Procurement of EE, & Local Climate Action Planning

Identify and deploy Innovative Transportation, and Industrial Clean Energy Solutions

- Support PennDOT Electric Vehicle Infrastructure funding initiatives
- Hydrogen CCUS Opportunity Assessments

Develop a clean energy workforce and manufacturing capabilities

- Energy Auditor Training & Building Codes Training Programs focused in EJ and Traditional Energy Communities
- Clean energy apprenticeships & workforce analysis research



Energy Programs Office

Thank you!

David Althoff

Director

Energy Programs Office

dalthoff@pa.gov

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