

The Pennsylvania Energy Development Authority

Annual Report 2019-2020



Tom Wolf, Governor
Patrick McDonnell, Secretary of Environmental Protection & Chairman of the Board

Officers

Hon. Patrick McDonnell
Secretary of Environmental Protection
Chair
Ex-Officio

Hon. Dennis Davin
Secretary of Community and Economic Development
Secretary
Ex-Officio

Romulo L. Diaz, Jr.
Treasurer
Appointed

Board of Directors

Hon. John F. Coleman Jr.
Commissioner, Public Utility
Commission
Ex-Officio

Virginia L. Brown
AFSCME Phil. Dist. Council, Retiree
Chapt. 47
Appointed

Tanya McCloskey
Office of Consumer Advocate
Ex-Officio

Michael Welsh
SIBEW Third District
Appointed

Hon. Russell C. Redding
Secretary of Agriculture
Ex-Officio

Sarah Hetznecker
VP, PSEG Solar Source, LLC
Appointed

Hon. Richard Vague
Acting Secretary of Banking &
Securities
Ex-Officio

Lauren M. Boles
City Of Philadelphia
Appointed

Hon. Steve Santarsiero
Pennsylvania Senate

Ray Bologna
North Branch Energy, Inc
Appointed

Hon. Gene Yaw
Pennsylvania Senate

Bernie Lynch
Strategic Development Solutions LLC
Appointed

Vacant
Pennsylvania House of Representatives

Vacant
Appointed

Vacant
Pennsylvania House of Representatives

Vacant
Appointed

Staff

David Althoff Jr
Acting Executive Director

Libby Dodson
Staff

Joshua Dzuibek
Staff

Introduction/Executive Summary

This annual report covers the operations of the Pennsylvania Energy Development Authority (PEDA) for the period July 1, 2019 to June 30, 2020. Significant activities include project management of the approved financial assistance awards made in October 2014, the development of the 2020 PEDA Energy Development Plan, and progress toward establishing a Green Bank. PEDA and Pennsylvania Department of Environmental Protection (DEP) staff members continue to monitor progress and implementation of three of the 2014 awarded grant projects.

Background

PEDA was created by the Energy Development Authority and Emergency Powers Act of 1982. PEDA is a public corporation governed by a 19-member Board of Directors and managed by an executive director and staff. PEDA became active when its first Board of Directors was confirmed on June 26, 1984, and it remained active until 1995. After a period of dormancy, on April 8, 2004, Executive Order 2004-5 was issued revitalizing PEDA and transferring it to DEP, which now provides staffing for the authority.

PEDA'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. The actions of the Authority will help to mitigate the impacts of climate change through the reduction of greenhouse gas emissions. The Authority will support energy projects that improve public health and protect the environment, while strengthening economic development and job creation in Pennsylvania.

Accomplishments in the 2019-20 Fiscal Year

PEDA Board Activities:

The PEDA Board convened on September 18, 2019 to discuss revisions to the PEDA Energy Development Plan, as well as the potential for establishing a Green Bank utilizing Growing Greener II and PEDA funds. The revised PEDA Energy Development Plan was released for public comment on November 16, 2019, and the public comment period closed on December 20, 2019.

The Board had planned to convene again in April of 2020 to review public comments on the PEDA Energy Development Plan and hold a vote on approving the Plan. Additionally, during the planned April 2020 Board meeting, the PEDA Board was slated to further discuss funding opportunities to establish a Green Bank in partnership with the Pennsylvania Treasury. The purpose of the Green Bank is to develop financial incentive programs for alternative energy projects in line with PEDA's mission. Due to the COVID-19 pandemic, the April Board meeting was postponed until August 4, 2020.

PEDA 2014 Grant Project Status:

A total of 184 applications for clean and alternative energy projects were submitted to PEDA on August 15, 2014 to be considered for financial assistance awards. The proposed projects totaled approximately \$81 million in requested funding. PEDA, utilizing available funds from the Energy Development Fund, Growing Greener II, Duquesne Light Settlement

Fund and the Growing Greener Community Environmental Initiative fund, selected 28 projects totaling nearly \$12.5 million in financial assistance. PEDA utilized a competitive scoring system to rank the proposed projects. PEDA's Technical Review subcommittee including Gibson C. Armstrong, Representative R. Lee James, Bernie Lynch, Tanya McCloskey, and Steve Drizos representing Secretary C. Alan Walker, selected the final list of recommended projects for presentation to the PEDA board for approval.

Awarded projects:

- 19 Advanced Energy Projects
- 5 Clean Alternative Energy Projects
- 3 Advanced Energy Projects to be deployed in the Duquesne Light service territory,
- 1 Community Environmental Initiative project

Twenty-one PEDA projects were successfully deployed. Twenty projects have been completed and are operating. One project is still under construction. Seven projects were mutually determined to be unable to move to completion as proposed. Of those seven projects, three projects were withdrawn prior to grant contracting and four were terminated. All funds awarded to the seven projects were liquidated and no grant funds were expended on those projects. A listing of all projects from 2014 is provided in Appendix A.

Twenty projects have submitted their required one-year follow-up annual report. The Hydro Green Energy project is still under construction. The total reported alternative energy generation and annual energy and CO₂ savings calculated from the one-year follow-up reports received were:

- Alternative energy generation: 23,035 MWh/yr.
- Electricity savings: 12,221 MWh/yr.
- Natural gas savings: 52,838 Mcf/yr.
- CO₂ savings ~ 10,009 tons/yr.

PEDA has developed case studies to highlight success of the implementation of the 2014 projects. The case studies developed include information on: project size, project cost, grant share, a statement or quote from the grantee regarding the beneficial nature of the project and their overall impressions as well as pictures, and description of results and benefits.

To display the case studies PEDA created a story map, which includes a GIS map of Pennsylvania identifying the location of every PEDA project from the 2014 grant round in the state. Each location includes a brief synopsis of the project, pictures of the project, and a link to the completed case studies.

The link to the PEDA Story Map¹ is accessed through the PEDA website².

Project Implementation:

Activities related to three Advanced Energy Projects occurred during the current reporting period. Advanced Energy Projects are those which deploy: solar energy, wind, low-impact hydropower, geothermal, biomass, biologically derived methane gas including landfill gas,

¹ <http://padep-1.maps.arcgis.com/apps/Shortlist/index.html?appid=f8c1fd0a26434771b523cea524db6fd4>

² <https://www.dep.pa.gov/Business/Energy/OfficeofPollutionPrevention/FinancialOptions/Pages/PEDA.aspx>

fuel cells, coal-mine methane, waste coal, coal liquefaction, coal polygeneration, integrated gasification combined cycle, and demand management measures including recycled energy and energy recovery, energy efficiency and load management.

Elizabethtown College (Lancaster County): The project installed a 2 MW ground-mounted solar photovoltaic (PV) array on campus owned property.

- Project Status: Project was completed and closed out during this reporting period.
 - The solar construction was completed in 2016; however, due to a heavy snow load, some portions of the solar racking were damaged.
 - Work was completed on the repairs to reinforce and replace the damaged racking in March 2020 and final closeout of the project was completed.

Knouse Foods Co Op (Adams County): The project was provided grant funding to install a 1,200 kW Combined Heat and Power (CHP) system at its Peach Glen facility to utilize the biologically derived methane biogas to generate electricity, steam, and hot water to support Knouse Foods' on-going operations. The new CHP system allowed for the displacement of 17,466 Mcf/yr of natural gas with carbon-neutral biogas, to produce electricity and thermal load with reduced GHG emissions.

- Project Status: Project was completed during the prior reporting year and; one-year follow-up report received during this reporting year.

Hydro Green Energy (Allegheny County): The project will result in the design and the deployment of a 5.2 MW low environmental impact hydropower facility at the U.S. Army Corps of Engineers Braddock Locks and Dam on the Monongahela River.

- Project Status: 30% completed. Geotechnical drilling and analysis are complete and significant progress on the PPA has been made. A presentation on the status of this project was provided to the PEDa Board during the September 2019 meeting. The project is behind the original period of performance schedule due to hydropower licensing time frames. Impacts related to COVID-19 have also created delays. Initial engineering designs have been completed and were anticipated to be submitted to USACE by the end of August 2020. The final agreement for the water quality sondes for the project was executed during 2Q 2020 and the sondes have been installed.
- An extension has been granted and the new project completion date is March 31, 2022.
- Anticipated Energy Generation: 32,263,000 kWh/yr.
- Estimated emissions savings: 13,163 tons of CO₂/yr.

Financial Report:

As of June 30, 2020, the Energy Development Fund contained a total of \$3,475,907.03 in funds. The funds include designated administrative funds, revenue from interest on securities, and claw back funds from 2014 grant projects who have returned grant funds. It is expected that the balance of funds in Energy Development Fund may be committed in the coming fiscal year through the awarding of projects from the PEDa Restart Grant Solicitation and the awarding of funds to partner with PA Treasury on a Green Bank initiative. Financial information for the Energy Development Fund is described in the Fund Balance Sheet, attached as Appendix B. The Unreserved Fund Balance Sheet is attached as Appendix C.

The Duquesne Light Settlement funds were fully committed and expended through the financial assistance awards made on October 22, 2014. The Duquesne Light Settlement funds are described in Appendix D.

Growing Greener II provided PEDA with up to \$10 million annually for 5 years ending in FY 2009-10. Those funds are a part of the Commonwealth's general obligation bond issuances. As such, the funds are not deposited directly into the Energy Development Fund but are maintained by the Governor's Office of Budget as a part of the larger fund containing other general obligation bond proceeds. PEDA grantees utilizing Growing Greener II monies are paid from this larger fund. A statement of commitments and expenditures for PEDA's allocation of Growing Greener II funding is attached as Appendix E. An uncommitted balance exists in this fund of \$1,715,770.10 due to prior committed projects returning unspent funds. It is expected, however, that the balance of funds in the Growing Greener II bond fund will be committed and expended in the coming fiscal year through the PEDA Restart Grant. The Growing Greener Funds are described in Appendix E.

Conclusion:

PEDA plans to work with Governor Wolf, the legislature, and the private sector to help finance innovative clean energy projects and companies and to promote clean energy in Pennsylvania. In the coming year, PEDA's board and staff look forward to potential new financial opportunities to provide assistance for advanced energy projects and continue the work to foster growth in this important area of Pennsylvania's economy.

Appendix A

GRANT PROGRAM	PROJECT NAME	FUNDING RECIPIENT	COUNTY	PROJ STATUS	TOTAL PROJECT COST	TOTAL ARRA FUNDING	MATCHING FUNDS	TOTAL AMT INVOICED	EXPECTED COMPL DATE
PEDA 2014	Al-Air Battery Electrolyte Recycling	Alcoa, Inc.	Westmoreland	Complete	\$1,089,830	\$500,000	\$589,830	\$478,032	12/31/2015
PEDA 2014	Career Center Boiler Upgrade	Northumberland County Board of Commissioners	Northumberland	Complete	\$175,887	\$79,944	\$95,944	\$79,944	08/31/2015
PEDA 2014	Estes Express Lines - West Middlesex	Estes Express Lines	Mercer	Complete	\$1,410,195	\$400,000	\$1,010,195	\$400,000	04/30/2017
PEDA 2014	Gaining Ground by Going Green	Shamokin Area School District	Northumberland	Complete	\$4,299,993	\$500,000	\$3,799,993	\$500,000	11/30/2015
PEDA 2014	Interstate Energy Window Manufacturing Expansion	Interstate Building Materials, Inc.	Luzerne	Complete	\$2,170,000	\$470,000	\$1,700,000	\$469,950	10/21/2016
PEDA 2014	Modeling Biomass Excellence: Public Education Advancing the Land of Lumber	West Branch Area School District	Clearfield	Complete	\$1,261,675	\$500,000	\$761,675	\$500,000	10/31/2016
PEDA 2014	Monaca Water Reservoir Alternative Energy Project	Borough of Monaca	Beaver	Complete	\$150,000	\$75,000	\$75,000	\$75,000	12/01/2015
PEDA 2014	New Burner and Economizer for Johnston Boiler	Dairy Farmers of America	Tioga	Complete	\$151,952	\$75,976	\$75,976	\$72,918	10/31/2014
PEDA 2014	NextGen Fuel Cell Component Manufacturing	J.V. Manufacturing Company	Allegheny	Complete	\$1,486,435	\$500,000	\$986,435	\$500,000	09/30/2016

Appendix A

GRANT PROGRAM	PROJECT NAME	FUNDING RECIPIENT	COUNTY	PROJ STATUS	TOTAL PROJECT COST	TOTAL ARRA FUNDING	MATCHING FUNDS	TOTAL AMT INVOICED	EXPECTED COMPL DATE
PEDA 2014	Pittsburgh Garage Energy Efficiency Initiative	Green Building Alliance	Allegheny	Complete	\$840,565	\$469,893	\$370,672	\$463,635	10/31/2016
PEDA 2014	Pittsburgh Non-Profit Power Purchase	AIM Ventures, LLC	Allegheny	Complete	\$98,630	\$28,800	\$69,830	\$28,800	05/15/2015
PEDA 2014	Steam System Insulation & Monitoring Project	Allegheny County	Allegheny	Complete	\$400,805	\$174,665	\$226,140	\$174,665	12/31/2017
PEDA 2014	Street Light LED Conversion Project	City of Harrisburg	Dauphin	Complete	\$2,837,653	\$500,000	\$2,337,653	\$500,000	12/31/2015
PEDA 2014	Upper Merion Ultra Battery Project	Constellation New Energy	Montgomery	Complete	\$1,598,840	\$500,000	\$1,098,840	\$500,000	12/15/2015
PEDA 2014	Robert Packer Hospital Energy Conservation Project	Robert Packer Hospital	Bradford	Complete	\$2,181,800	\$500,000	\$1,681,800	\$500,000	04/28/2017
PEDA 2014	Westtown School Comprehensive Conservation Plan	Westtown School	Chester	Complete	\$1,057,790	\$500,000	\$557,790	\$500,000	03/31/2017
PEDA 2014	Advanced Solar PV Panel Mounting Systems	Summit Steel & Manufacturing, Inc.	Berks	Complete	\$1,368,156	\$457,366	\$910,790	\$418,166	10/31/2017
PEDA 2014	Elizabethtown College and Clean Energy:	Community Energy Solar, LLC dba Elizabethtown Solar LLC	Lancaster	Complete	\$4,782,256	\$500,000	\$4,282,256	\$450,000	10/31/2017
PEDA 2014	Knouse Foods Peach Glen Biogas CHP System	Knouse Foods Co-Op, Inc.	Adams	Complete	\$2,028,900	\$1,000,000	\$1,028,900	\$1,000,000	10/21/2017

Appendix A

GRANT PROGRAM	PROJECT NAME	FUNDING RECIPIENT	COUNTY	PROJ STATUS	TOTAL PROJECT COST	TOTAL ARRA FUNDING	MATCHING FUNDS	TOTAL AMT INVOICED	EXPECTED COMPL DATE
PEDA 2014	Aria Health System - CHP	Aria Health System	Philadelphia	Complete	\$3,864,506	\$500,000	\$3,364,506	\$450,000	02/27/2017
PEDA 2014	Braddock Locks and Dam Low Environmental Impact Hydropower Project	Hydro Green Energy, LLC	Allegheny	Healthy	\$8,428,913	\$499,913	\$7,929,000	\$0	03/31/2022
PEDA 2014	Anaerobic Digester for Nicholas Meats	Nicholas Meat, LLC	Clinton	Terminated	\$1,797,649	\$500,000	\$1,297,649	\$0	03/15/2016
PEDA 2014	Blue Mountain CHP and Natural Gas Pipeline Project	Blue Mountain Resort Management LLC	Carbon	Terminated	\$1,464,333	\$500,000	\$964,333	\$0	06/30/2016
PEDA 2014	Marywood Solar Project	Community Energy Solar LLC dba Marywood Solar LLC	Lackawanna	Terminated	\$3,675,000	\$500,000	\$3,175,000	\$0	11/01/2015
PEDA 2014	PA Solar Park II - PEDA 2014	PA Solar Park II, LLC	Carbon	Terminated	\$9,000,000	\$750,000	\$8,250,000	\$0	09/15/2017
PEDA 2014	HACC	Juniata Solar Partners	Dauphin	Withdrawn	\$9,089,657	\$484,559	\$8,605,098	\$0	N/A
PEDA 2014	Solar Power on a Sustainable Tree Farm	Advanced Technologies & Land Services	Armstrong	Withdrawn	\$4,068,000	\$500,000	\$3,568,000	\$0	N/A
PEDA 2014	Solar-diesel Hybrid Light Tower	Solar Secured Solutions LLC.	York	Withdrawn	\$4,313,320	\$500,000	\$3,813,320	\$0	N/A

Appendix B

ENERGY DEVELOPMENT FUND BALANCE SHEET June 30, 2020

ASSETS	
Cash with Treasurer	\$0.00
Cash in Transit	-\$2,428.73
Temporary Investments	-\$1,848,991.57
Long-term Investments	\$5,328,756.67
Loans Receivable	\$0.00
TOTAL ASSETS	\$3,477,336.37
LIABILITIES AND FUND BALANCE	
LIABILITIES	
Payroll Payable	\$1,429.34
Due to Political Subdivisions	
TOTAL LIABILITIES	\$1,429.34
FUND BALANCE	
Reserved for Loans Receivable	\$0.00
Reserved for Encumbrances - Restricted Revenue	\$0.00
Reserved for Encumbrances	\$499,913.00
Reserved Non-Lapsable Balance	\$574,168.95
Reserved for General Fund Lapse	\$0.00
Reserved - Restricted Revenue	\$0.00
Reserved for General Fund Transfer per Act 44	\$0.00
Unreserved/Undesignated	\$2,401,825.08
TOTAL FUND BALANCE	\$3,475,907.03
TOTAL LIABILITIES AND FUND BALANCE	\$3,477,336.37

Appendix C

ENERGY DEVELOPMENT FUND UNRESERVED FUND BALANCE STATEMENT June 30, 2020

UNRESERVED FUND BALANCE, July 1, 2019	\$3,406,400.33
Reserved for Encumbrances - Restricted Revenue, July 1, 2019	\$0.00
Reserved for Restricted Revenue, July 1, 2019	\$0.00
Reserve for Transfer to General Fund, July 1, 2019	\$0.00
REVENUE	
PEDA Application Fees	\$0.00
Transfer from AFIG	\$0.00
Loan Repayment	\$0.00
Interest Payments	\$0.00
Late Fees	\$0.00
Miscellaneous Revenue	\$0.00
Interest on Securities	\$113,168.79
Duquesne Light Settlement	\$0.00
TOTAL REVENUE	\$113,168.79
Pending Prior Year Lapses	\$72,255.96
TOTAL FUNDS AVAILABLE	\$3,591,825.08
DEDUCTIONS:	
Expenditures - Current	\$115,918.05
Reserved for Non-Lapsable Balance	\$574,168.95
Expenditures - Restricted Revenue	\$0.00
Commitments - Current	\$499,914.00
Commitments - Restricted Revenue	\$0.00
Reserved for Restricted Revenue	\$0.00
General Fund Lapse	\$0.00
Transfer to General Fund per Act 44	\$0.00
Reserved for Loans Receivables	\$0.00
TOTAL DEDUCTIONS	\$1,190,000.00
UNRESERVED FUND BALANCE, JUNE 30, 2020	\$2,401,825.08

Appendix D

ENERGY DEVELOPMENT FUND DUQUESNE LIGHT SETTLEMENT June 30, 2020

BALANCE JULY 1, 2007	\$0.00
FY 2007-08 Revenue	\$3,000,000.00
FY 2008-09 Revenue	\$0.00
FY 2009-10 Revenue	\$1,500,000.00
FY 2010-11 Revenue	\$1,500,000.00
FY 2011-12 Revenue	\$0.00
FY 2012-13 Revenue	\$0.00
FY 2013-14 Revenue	\$0.00
FY 2014-15 Revenue	\$0.00
FY 2015-16 Revenue	\$0.00
FY 2016-17 Revenue	\$0.00
FY 2017-18 Revenue	\$0.00
FY 2018-19 Revenue	\$0.00
FY 2019-20 Revenue	\$0.00
TOTAL REVENUE	\$6,000,000.00
COMMITMENTS	\$0.00
EXPENDITURES	
FY 2009-10 Expenditures	\$729,166.16
FY 2010-11 Expenditures	\$1,101,352.84
FY 2011-12 Expenditures	\$1,956,460.32
FY 2012-13 Expenditures	\$1,703,325.77
FY 2013-14 Expenditures	\$0.00
FY 2014-15 Expenditures	\$0.00
FY 2015-16 Expenditures	\$434,694.91
FY 2016-17 Expenditures	\$75,000.00
FY 2017-18 Expenditures	\$0.00
FY 2018-19 Expenditures	\$0.00
FY 2019-20 Expenditures	\$0.00
TOTAL EXPENDITURES	\$6,000,000.00
TOTAL COMMITMENTS AND EXPENDITURES	\$6,000,000.00
BALANCE JUNE 30, 2020	\$0.00

Appendix E

GROWING GREENER II BOND FUND EXECUTIVE AUTHORIZATION STATEMENT June 30, 2020

BALANCE JULY 1, 2005	\$0.00
FY 2005-06 Executive Authorization	\$10,000,000.00
FY 2006-07 Executive Authorization	\$10,000,000.00
FY 2007-08 Executive Authorization	\$10,000,000.00
FY 2008-09 Executive Authorization	\$10,000,000.00
FY 2009-10 Executive Authorization	\$10,000,000.00
TOTAL EXECUTIVE AUTHORIZATIONS	\$50,000,000.00
COMMITMENTS	\$50,000.00
EXPENDITURES	
FY 2005-06 Expenditures	\$323,562.07
FY 2006-07 Expenditures	\$2,925,987.35
FY 2007-08 Expenditures	\$3,596,835.59
FY 2008-09 Expenditures	\$4,967,237.88
FY 2009-10 Expenditures	\$7,389,308.92
FY 2010-11 Expenditures	\$10,734,584.94
FY 2011-12 Expenditures	\$6,887,968.37
FY 2012-13 Expenditures	\$3,790,487.65
FY 2013-14 Expenditures	\$685,906.41
FY 2014-15 Expenditures	\$99,973.89
FY 2015-16 Expenditures	\$3,798,872.59
FY 2016-17 Expenditures	\$2,570,054.59
FY 2017-18 Expenditures	\$363,449.65
FY 2018-19 Expenditures	\$100,000.00
FY 2019-20 Expenditures	\$0.00
TOTAL EXPENDITURES	\$48,234,229.90
TOTAL COMMITMENTS AND EXPENDITURES	\$48,284,229.90
BALANCE JUNE 30, 2020	\$1,715,770.10