

PENNSYLVANIA SUSTAINABLE ENERGY BOARD 2004 ANNUAL REPORT

FOREWORD

This Pennsylvania Sustainable Energy Board (“PASEB”) report reviews the activities of the sustainable energy funds (“Regional Funds”) during calendar year 2004. Collectively, the Regional Funds loaned slightly less than eighteen million dollars and provided approximately one million dollars in grants during this period. Since the Regional Funds were created, opportunities have been established for investments in renewable energy and clean energy, as well as providing grants to individuals, businesses and local agencies to advance energy efficiency and business initiatives. We have witnessed the support and development of wind power in the Commonwealth, as well as high standards in new building technology by the four funds. More renewable energy has been produced and more energy efficient technology has been installed and used every day than ever before. We are witnessing gains in energy share by these products and activities at an increasing rate. We anticipate an increase in investment and activity as the Regional Funds continue to mature and are aided by the Alternative Energy Portfolio Standards Act in the future. The PASEB commends Regional Fund administrators and the boards themselves for their continued commitment to the success of these funds.

Background

The electric utility industry restructuring process in Pennsylvania brought together stakeholder groups representing residential consumers, large commercial and industrial customers, environmental parties, and other interested participants. These groups contributed to the development of the restructuring settlements for Metropolitan Edison Company and Pennsylvania Electric Company (“Met Ed and Penelec”)¹, PECO Energy Company (“PECO”), PPL Electric Utilities, Inc. (“PPL”), and Allegheny Power/West Penn Power Company (“WPP”). These settlements provided new opportunities for renewable and sustainable energy production services and enterprises.

¹ While Met-Ed and Penelec represent different service territories and in fact have separate boards of directors and administrators, for purposes of this report and in other matters, they are considered a single regional fund. For example, they share the same governing bylaws, and they are entitled to only one seat on the PASEB.

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Specifically, each of the four settlement agreements established a separate and independent sustainable energy fund to promote:

- ◆ The development and use of renewable energy and clean energy technologies,
- ◆ Energy conservation and energy efficiency,
- ◆ Renewable energy business initiatives, and
- ◆ Projects which improve the environment in the Companies' service territories, related to the transmission and distribution facilities. (Met Ed & Penelec)

Funding

Under terms of the settlements, approximately \$55 million has been collected through these companies' distribution rates to promote the development of sustainable and renewable energy technologies. The PECO sustainable energy fund received an additional \$18.5 million in funding over a 5-year period as a result of the PECO/Unicom merger. On June 14, 2001, the Commission approved the merger of GPU Energy and First Energy., providing for an additional \$5 million (\$2.5 million each) in funding. In PPL's most recent rate case, the Commission agreed to continue funding the SEF through December 31, 2006. The funding level to be included within PPL's distribution rates for 2005 and 2006 shall be 0.01 and 0.005 cents per kwh, respectively.

Regional Board Administration

The settlements provided that a seven-member board, nominated by the parties to the agreements, and approved by the Commission, would manage each fund. The board of directors for each fund drafted by-laws that address the responsibilities and powers of the board and the fund administrators. The by-laws required that directors represent a cross-section of interests — the financial community, consumers, environmental interests, business and industry, electric distribution companies ("EDCs") and electric generation suppliers ("EGSs"). The by-laws also address project selection and the funds' investment strategies.

The Commission approved the individual by-laws for each Regional Fund on the following dates:

- ◆ December 2, 1999 - PECO
- ◆ January 27, 2000 - Met-Ed and Penelec
- ◆ June 2, 2000 - PPL and WPP

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Fund Administrators

- ◆ The Sustainable Development Fund, formerly the Reinvestment Fund (PECO).
- ◆ Berks County Community Foundation (Met Ed).
- ◆ Community Foundation of the Alleghenies (Penelec).
 - Both Met Ed and Penelec follow the same funding approach and guidelines.
- ◆ The Sustainable Energy Fund of Central Eastern Pennsylvania (PPL).
- ◆ The Energy Institute of Penn State University, in partnership with Energetics, Inc. (WPP).

The Regional Funds' boards meet on a regular basis and Commission Staff attend these meetings as liaison representatives. The boards are required to submit annual and semi-annual reports to the Commission on the activities, expenditures, and investments of the Regional Funds.

Statewide Activities

By Commission Order dated July 1, 1999, the PASEB was created to "provide oversight, guidance and technical assistance to the regional boards." Statewide coordination of the Regional Funds was viewed as essential to establish Pennsylvania as a leader in renewable energy technologies. In its Order the Commission noted that the success of the renewable power initiative required a partnership between the regions and the state. The Commission held that the PASEB should operate in conjunction with the Regional Funds in identifying opportunities, prioritizing objectives and developing an outreach plan to garner further support for the initiatives.

On August 7, 2003, the Commission adopted an Order further defining the role of the PASEB. The Commission directed the PASEB to hold annual meetings, establish by-laws and develop a "best practices" business model for each of the Regional Funds. The Order also modified the reporting obligations of the Regional Funds.

Several PASEB meetings were held in Harrisburg in 2004. All PASEB members were represented at these meetings. In addition to the Commission, PASEB members include a board member of each of the four Regional Funds, as well as designees for the Department of Environmental Protection, Department of Community and Economic Development, Office of Consumer Advocate and Pennsylvania Environmental Council. The purpose of these meetings was to address the PASEB's obligations arising from the August 7, 2003 Order and to develop a plan to comply with the Commission's mandate. An Annual Meeting was held on June 29, 2004, at which the Regional Funds highlighted projects from the prior year.

The following table summarizes the Regional Funds' disbursement of loans and grants for the calendar year 2004. As shown, the Regional Funds released more than \$17 million in support of renewable energy activities. Approximately \$16.7 million was given in the form of loans. Just over \$1 million was provided as grants.

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2004 Expenditures

FUND	LOANS	GRANTS	TOTAL
Met/Ed	3,830,000	104,593	3,934,593
Penelec	3,650,000	191,685	3,841,685
PECO	3,511,324	207,070	3,718,394
PPL	1,828,500	213,528	2,042,028
West Penn	3,945,000	395,745	4,340,745
Totals	16,764,824	1,112,621	17,877,445

Met Ed Sustainable Energy Fund <http://www.bccf.org/pages/gr.energy.html>

The Metropolitan Edison Company Sustainable Energy Fund's (as administered by the Berks County Community Foundation) purpose is to promote:

- ◆ The development and use of renewable energy and clean energy technologies.
- ◆ Energy conservation and efficiency.
- ◆ Sustainable energy businesses.
- ◆ Projects that improve the environment in the company's service territories, as defined by their relationship to the company's transmission and distribution facilities

While the fund is a component fund of Berks County Community Foundation, it is dedicated to serving the entire Met Ed service territory. A companion fund was established to serve the company's Penelec service territory.

The accomplishments of Metropolitan Edison Company/Pennsylvania Electric Company Sustainable Energy Fund for the year 2004 include:

Financial Approvals

During the year January 1, 2004 – December 31, 2004 the Metropolitan Edison Company Sustainable Energy Fund approved financing totaling \$3,934,593. Of that total, \$104,593 was authorized for grants and \$3,830,000 was authorized for loans.

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Grants

<i>PROJECT</i>	<i>AMOUNT</i>	<i>COMMENTS</i>
Pennsylvania Foundry Association	\$25,000	To develop workshops, select providers and assess feasibility of load response participants among Pennsylvania Foundries
French Creek Ridge Vineyards	\$23,658	For installation of a 4.8 kilowatt PV Solar System
Crispus Attucks Association	\$50,000	To offset the cost of obtaining LEED Certification for their new technology center in York County
Clean Energy States Alliance	\$1,500	For work in fuel cell development
Clean Energy States Alliance	\$3,935	For operational and membership support for clean energy research and promotion
Citizens for Pennsylvania's Future	\$500	For the "Getting to 10%" Conference

Loans

<i>PROJECT</i>	<i>AMOUNT</i>	<i>COMMENTS</i>
Community Energy, Inc.	\$500,000	For the 26 MW Bear Creek wind project. This project was not completed in 2004 because the federal Production Tax Credit was not approved until late 2004. This project is moving forward again, and has increased to a generating capacity of 26.0 MW. It will use wind turbines built by a Pennsylvania based company, Gamesa. The \$500,000 loan will be committed in 2005.
Gamesa	\$1,000,000	To develop their wind-turbine manufacturing plant in the Metropolitan Edison Company/Pennsylvania Electric Company service territory
Gamesa	\$2,000,000	To develop 500 MW of wind in Pennsylvania
Generation Resources Holding Company (Forward Windpower, LLC)	\$330,000	For the development of a 25MW wind farm in Somerset County

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Penelec Sustainable Energy Fund

<http://www.cfalleghenies.org/page17909.cfm>

The Penelec Sustainable Energy Fund, as administered by the Community Foundation for the Alleghenies, exists to promote:

- ◆ The development and use of renewable energy and clean energy technologies
- ◆ Energy Conservation and Efficiency
- ◆ Sustainable Energy Businesses
- ◆ Projects that improve the environment in the Penelec region.

Financial Approvals

During the year January 1, 2004 – December 31, 2004 the Penelec Sustainable Energy Fund approved financing that totaled \$3,841,685. Of that total, \$191,685 was for grants and \$3,650,000 for loans.

Grants

<i>Project</i>	<i>Amount</i>	<i>Comments</i>
City of Johnstown	\$25,000	For energy updates to a historic carpenter shop building
Clean Energy State Alliance	\$3,935	For operational and membership support for clean energy research and promotion
Concurrent technologies Corporation	\$25,000	To study the cost of integrating a PEM fuel cell into electric vehicles
Human Services Center	\$11,750	To install an energy efficient roof
Meadville Community Energy Project	\$25,000	For operational support
Meadville Community Energy Project	\$25,000	To develop the “green campus – green community” program
Millcreek Township School District	\$25,000	To help them obtain LEED Certification for a new school
Pennsylvania Foundry Association	\$25,000	To develop workshops, select providers and assess feasibility of load response participants among Pennsylvania foundries
The Rouse Estate	\$12,000	To study the potential of using geothermal heat
Southern Alleghenies Conservancy	\$4,000	To develop a renewable energy conference
Southern Alleghenies Conservancy	\$10,000	To match their Pennsylvania Harvest Grant so that they can build a 10kw wind project

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Loans

<i>Project</i>	<i>Amount</i>	<i>Comments</i>
Gamesa	\$1,000,000	To development of their wind turbine manufacturing plant in the Metropolitan Edison Company/Pennsylvania Electric Company service territory
Gamesa	\$2,000,000	To develop 500 MW of wind in Pennsylvania
Community Energy, Inc.	\$500,000	For the 26 MW Bear Creek wind project
Human Service Center	\$150,000	For their green building project

Throughout this reporting period, Met-Ed/Penelec Sustainable Energy Fund joint staffs worked with and partnered on the following projects:

- ◆ Met with the other Regional Funds on four different occasions (January 8, March 26, June 2 – 4 and October 10). June 2 - 4 was the annual meeting of all the PA Sustainable Energy Funds. At the October 10 meeting, the funds heard from wind developers and discussed future joint projects. Jointly the funds are working to add to the Wind Farm Mix and support the development of green tags.
- ◆ Attended the Clean Energy States Alliance workshop, which is an alliance of Sustainable Energy Funds in the United States. The purpose of the workshop was to promote cooperation among the funds in order to better accomplish the sustainable energy mission.
- ◆ Participated in the September 8 meeting with Pennsylvania Department of Environmental Protection (“DEP”) Deputy Secretary Daniel Desmond. The discussion centered on new ways to market alternative energy.
- ◆ Participated in an alternative fuels conference.
- ◆ Attended the PennFuture/Mid-Atlantic Renewable Energy Coalition’s Green Awards and Annual Meeting.
- ◆ Attended and participated in the US Green Building Council’s Annual Conference held in Pittsburgh, PA, November 12-14. The purpose of the conference was the continued promotion of building “green.”
- ◆ Participated in a one day review and planning process for a new business plan.

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In addition, Met-Ed /Penelec Sustainable Energy Fund staff attended numerous meetings and presentations:

- ◆ Met Ed Sustainable Energy Fund staff attended and participated in the December 11 Advisory Committee Meeting to the Northeastern Region of the Ben Franklin Technology Partners. This was a brainstorming session on how to better promote the Partnership to more entrepreneurs.
- ◆ Met-Ed Sustainable Energy Fund staff participated in a one day panel discussion on the relationship of Smart Growth Activities and Sustainable Energy held by the Surdna Foundation on December 5.
- ◆ Met-Ed Sustainable Energy Fund staff participated in the September 25 meeting of the Pennsylvania Biomass Working Group. The Working Group seeks to develop and promote biomass projects in the Commonwealth.
- ◆ Penelec Sustainable Energy Fund staff attended a presentation on modified technology for low-head hydropower presented by Universal Power Associates and the West Penn Sustainable Energy Fund in Greensburg on March 12th.
- ◆ Penelec Sustainable Energy Fund staff attended a DEP presentation at the David L. Lawrence Convention Center in Pittsburgh on March 13th to learn more about upcoming DEP programs.
- ◆ Penelec Sustainable Energy Fund staff attended a presentation on venture funding opportunities for Ebara Solar, Inc., in Rostraver on March 26th.
- ◆ Penelec Sustainable Energy Fund staff made a presentation to Penelec economic development managers in Clearfield on April 15th.
- ◆ Penelec Sustainable Energy Fund staff attended a presentation by McKissick & Associates of green building design in Lewisburg on May 16th.
- ◆ Penelec Sustainable Energy Fund staff made a presentation at a DEP-sponsored seminar on Green Buildings at Mercyhurst College in Erie on May 28th.

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PECO Sustainable Development Fund <http://www.trfund.com/sdf/>

The Sustainable Development Fund (“SDF”) invests in the following types of ventures:

- ◆ Companies and ventures that generate electricity using renewable energy sources.
- ◆ Manufacturers, distributors and installers of renewable energy, advanced clean energy and energy-conserving products and technologies.
- ◆ Companies and organizations that are end-users of renewable energy, advanced clean energy and energy-conserving products and technologies.

Highlights

During 2004, SDF approved loans, investments, grants and incentives totaling \$3,718,394, and leveraged an additional \$2,842,045 from private banks by selling participations in its energy performance lease financings.²

Other highlights for the twelve-month period include:

- As agent for the four Pennsylvania regional sustainable energy funds (PA SEFs), SDF gained approval for \$4,500,000 in syndicated financing (\$1,500,000 of which was to be retained by SDF) for the 26 MW Bear Creek wind project under development by Community Energy, Inc. The project was not completed in 2004 due to the failure to renew the federal Production Tax Credit until late in 2004. The project is moving forward again, increased to a generating capacity of 26.0 MW using Gamesa wind turbines, and SDF worked in 2004 to close on \$5,200,000 in financing for this project. The financial closing is expected in the second quarter of 2005.
- SDF has two wind projects that were awarded wind energy production incentive grants in 2003 that were unable to construct their project before the expiration of the federal Production Tax Credit (“PTC”) on December 31, 2003. These two projects were Bear Creek and Mountain Top. The PTC extension was not enacted until November of 2004, so construction of these two projects has been delayed until 2005. SDF staff amended the production incentive grant agreements with these two developers and has continued to monitor both projects to ensure that they will be able to begin commercial operation by December 31, 2005.
- In 2004, SDF succeeded in leveraging \$2,842,045 from private banks that purchased participations in energy performance lease financings for four energy conservation projects that totaled \$4,709,000 in 2003 and 2004.

² This figure includes \$670,000 in portfolio company investments made through our \$2 million investment in the Pennsylvania Advanced Industrial Technology Fund, a limited partnership that SDF created with Blue Hill Partners. An additional \$85,000 of this figure represents an approval under a \$300,000 reserve for follow-on investment to Franklin Fuel Cells, Inc. Please see Section II.B of this report, as well as our report to the PUC for the six-month period ending June 30, 2002, for further details.

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- In 2004, the venture incubator fund supported by SDF, the Pennsylvania Advanced Industrial Technology Fund, made investments totaling \$670,000 in three early stage renewable and clean energy companies.
- With 36 new solar photovoltaic (“PV”) system grant applications filed in 2004, the SDF Solar PV grant program grew to a total of 89 systems and 331.9 kW of capacity. In addition to these systems, SDF provided funding for eleven affordable Reinhard Street solar townhouses developed by Resources for Human Development and eight affordable housing units developed by Norris Square Civic Association. These two projects, with their greatly reduced electrical bills, give a fuller meaning to affordable housing. Another significant PV project supported by SDF in 2004 is the soon-to-be installed PV system on the Governor’s Residence in Harrisburg.
- SDF staff was invited to serve on the Pennsylvania Energy Advisory Board. Additionally, SDF staff has been nominated by Governor Rendell to the board of the Pennsylvania Energy Development Authority (subject to Senate confirmation).

Financial Approvals

1) Community Energy, Inc. (Bear Creek Wind Farm)

In June of 2004, SDF approved \$1,500,000 for the proposed 26 MW Bear Creek Wind Farm located ten miles southeast of Wilkes-Barre. Although SDF successfully syndicated among the four Regional Funds of a loan package totaling \$4,500,000 for this project, the renewal of federal PTCs came too late for this project to be completed in 2004. Community Energy has since increased the size of the project to 26.0 MW project using Gamesa wind turbines, and SDF is again in the process of gaining approval and closing on \$5.2 million in financing for this project, which closing is expected in the second quarter of 2005. The SDF debt financing completes a unique capital structure created by CEI’s investment banker, Babcock & Brown Financial Co., LLC, which involves two classes of equity investors, thereby increasing the number of institutional equity investors who are able to participate in wind development.

2) Connected Energy

Through the SDF’s Pennsylvania Advanced Industrial Technology Fund (“PA-AIT”), the limited partnership that SDF created with Blue Hill Partners, SDF approved and closed on \$500,000 in a preferred stock investment in Connected Energy. The company has developed a commercial product that monitors, controls, verifies and reports on the performance of widely varying energy assets at multiple sites. Customers are able to access this information remotely and in real time, from anywhere in the world. The company’s flagship product, COMSYS, has been installed at two wind sites owned by LIPA. Highlights this past year include deploying the first four of 45 COMSYS power plant installations for Cinergy Solutions; Connected Energy having been chosen by Capstone Turbines to provide their COMSYS monitoring product for all deployed and new microturbines; as well as a completed installation at the Van Lare Waste Water

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Treatment Facility in Monroe County, NY and a purchase order for another installation at the waster water treatment facility in Abington, PA. The SDF's investment has enabled the company to establish its sales and project management office in Philadelphia.³

3) Encelium

Through PA-AIT, SDF approved and closed on an additional \$95,000 in a follow-on preferred stock investment in Encelium Technologies, Inc. Encelium has developed a lighting control and energy management technology that is able to reduce lighting energy costs by 65% to 80%. Encelium completed 12 installations this past year over 700,000 square feet for companies that include Aqua America, Wyeth Pharmaceuticals, Electronics Boutique, Thomas Jefferson University Hospital and Liberty Property Trust. The SDF's investment provided working capital and managerial investment to the company to open a Philadelphia sales and service office.⁴

4) Princeton Energy Systems

Through PA-AIT, SDF approved and closed on an additional \$75,000 in a follow-on preferred stock investment in Princeton Energy Systems ("PES"), a renewable energy systems integrator and energy services company located in Philadelphia that is focused on commercial and institutional markets in the Philadelphia metropolitan area and the mid-Atlantic region. The company provides turnkey development and management services for commercial PV systems, including system design, engineering, project management and long-term system service and maintenance. The company couples its PV sales with HVAC energy efficiency retrofit measures to significantly reduce payback periods. 2004 projects included a Phase II advanced HVAC project for Frito-Lay, an installation for Liberty Property Trust at their new corporate headquarters in Malvern, PA and multiple industrial projects for GE Energy including the facilities owned by Smithfield Foods, GE Plastics, etc. The SDF's funds were used to provide working capital and a managerial investment to PES.⁵

5) Franklin Fuel Cells, Inc.

SDF approved and closed on an additional \$85,000 follow-on investment in Franklin Fuel Cells, an early stage company with breakthrough solid oxide fuel cell technology developed at the University of Pennsylvania. Commercial applications include stationary distributed generation and auxiliary power units. The SDF's \$85,000 leveraged an additional \$1,715,000 of private investment in the current round. SDF's investment in

³ SDF made its initial investment in Connected Energy Corp. as part of the \$2,000,000 funding approval SDF made in April, 2002 to launch PA-AIT.

⁴ SDF made its initial investment in Encelium as part of the \$2,000,000 funding approval SDF made in April, 2002 to launch PA-AIT.

⁵ SDF made its initial investment in Princeton Energy Systems as part of the \$2,000,000 funding approval SDF made in April, 2002 to launch PA-AIT.

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Franklin Fuel Cells now totals \$365,000. Franklin Fuel Cells was included in the SDF's report to the PUC for the six-month period ending June 30, 2002, which reported the SDF's initial \$200,000 approved investment in Franklin Fuel Cells, Inc. and a \$300,000 reserve for follow-on investment in the company.

6) Albert Einstein Healthcare Network

In 2003, SDF arranged financing for a \$3,035,000 energy performance contract designed and implemented by Alliant Integrated Services Corporation ("Alliant") for Albert Einstein Healthcare Network ("AEHN"). The energy conservation project was designed to reduce electricity consumption by 2,620 MWh per year, which represents an energy savings to AEHN of over \$399,000 per year.

In 2004, SDF succeeded in obtaining Sovereign Bank's approval to purchase a \$2,203,174 participation in the SDF's energy performance contract lease financing. These funds are now available to deploy in new SDF financing projects, thereby multiplying the impact of SDF's limited resources.

7) Thomas Jefferson University Hospital

In 2003, SDF approved \$890,000 in financing for an energy performance contract designed and to be implemented by Alliant for Thomas Jefferson University Hospital (TJUH). The energy conservation project was designed to reduce electricity consumption by 797 MWh per year.

In 2004, SDF succeeded in obtaining Sovereign Bank's approval to purchase a \$638,871 participation in the SDF's energy performance contract lease financing. As with the AEHN energy performance lease financing above, these funds are now available to deploy in new SDF financing projects.

8) Energy Cooperative Association of Pennsylvania

In 2003, SDF arranged a one-year \$325,000 performance guaranty agreement for Energy Cooperative Association of Pennsylvania ("ECAP"). This financing agreement has enabled the company to purchase electricity directly under their own wholesale power agreement and to graduate from being a power aggregator to becoming a fully licensed independent power supplier.

Because of ECAP's success in performing under its first year contract, SDF has arranged a reduced one-year \$100,000 performance guaranty agreement in 2004. It is SDF's belief that ECAP is establishing a track record of performance which in time will no longer require SDF's credit enhancement in order to obtain wholesale power supply contracts.

ECAP is one of only six electricity suppliers that are active in the PECO service territory. The Co-op's two retail electricity products are both generated from renewable energy sources.

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Core Grants

In 2004, the SDF board approved 13 new core grants. The total of the grants approved was \$207,070 and the total value of the projects supported by these grants was approximately \$5,884,000. The list of grants approved in 2004 is:

Grants

<i>Project</i>	<i>Amount</i>	<i>Comments</i>
Delaware Valley Green Building Council	\$25,000	For green building design work, energy modeling and daylight design work for the new Microsoft High School
Bat and Wind Energy Cooperative	\$10,000	To co-fund field research about bat fatalities at the Meyersdale and Mountaineer wind farms
Food Energy Cooperation	\$25,000	To demonstrate energy management system in three commercial facilities. This project will demonstrate the performance of a new energy management technology and service that will provide restaurants, convenience stores, and small retail businesses with a powerful tool for saving energy, managing energy consumption and supporting deployment of new energy efficiency or clean energy generation technologies.
Universal Entech, LLC	\$25,000	For a feasibility study of a proposed anaerobic digestion system for Moyer Packing in Souderton, PA to co-digest dead stock animals along with existing waste.
Wawa	\$25,000	To demonstrate energy management system in five existing Wawa stores.
Sustainable Business Network	\$10,000	To support a sustainable business competition
Philadelphia University Engineering and Design Studio	\$23,820	To demonstrate low-cost exterior insulation system for exterior masonry walls of air conditioning intensive buildings.
Aerzen USA	\$20,000	For a green building design grant for a light industrial office and warehouse building in Chester County
Advanced Renewables	\$25,000	For a business planning grant
Consillience, LLC	\$10,000	For green building design work for two residential buildings
Pace University	\$10,000	To update the PowerScorecard website to add content that addresses the subject of Renewable Energy Credits in ways that are accurate and understandable for PA electricity customers
Squirrel Hill falls Park	\$750	To support additional PV system repair, which supplemented an earlier grant
Acadia Water Technologies	\$20,000	A firm that designs and installs energy efficiency measures and methane-to-electricity generation in waste water treatment centers

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As of December 31, 2004, the SDF board had approved a cumulative total of 49 grants, totaling \$1,198,192 in SDF support. The total value of these 49 projects is approximately \$49,412,000.

SDF Network and Marketing Opportunities

In 2004, SDF continued to expand its marketing efforts by both sponsoring and speaking at a number of successful conferences, and meeting with companies, non-profit organizations, major institutions and public entities. During the report period, SDF pursued the following marketing strategies:

The SDF website (www.trfund.com/sdf)

The SDF website, which is part of The Reinvestment Fund's website, continues to be an essential means of distributing information regarding SDF. The website contains information about SDF's financial products and program offerings, financing request forms, requests for proposals, SDF documents and reports, background information about SDF, and links to related websites.

SDF Marketing Plan and Public Relations

In 2003, SDF prepared a marketing plan and engaged Connor Communications to provide specific public relations services to increase public awareness of SDF's accomplishments and assist SDF in marketing its financing programs. Connor Communications helped SDF by preparing and placing press releases, revising SDF's basic information materials, developing press kits and assisting SDF in getting the media to cover its events in the Philadelphia metropolitan area. The contract for services was completed in the first quarter of 2004.

Conferences and Speaking Engagements

In 2004, SDF continued to participate in numerous conferences and public meetings as speakers and active participants in order to raise awareness of SDF activities among key stakeholder groups, including:

- "Electricity Restructuring in Pennsylvania," (January 15, 2004, Hershey, PA), organized by Citizens for Pennsylvania's Future.
- Participated in a conference organized by the World Resources Institute and the Rockefeller Brothers Fund (January 22-23, 2004, Pocantico, NY) on Renewable Energy Credits.
- "SDF and State Clean Energy Funds," February 10, 2004. SDF staff participated in a national teleconference organized by the American Bar Association's Renewable Resources Committee.

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- “Cost of Green Seminar,” (February 12, 2004, Philadelphia), organized by the Delaware Valley Green Building Council. SDF spoke on a panel of green building design professionals at Carpenter Hall.
- “Making Affordable Housing Truly Affordable,” (March 16, 2004, Philadelphia), organized by the Pennsylvania Housing Finance Authority and the Energy Coordinating Agency and co-sponsored by SDF. SDF spoke on the developing market for solar PV in affordable and market-rate housing.
- “Clean Energy Expo,” (April 1-2, 2004, State College, PA), organized and co-sponsored by the four Pennsylvania Sustainable Energy Funds.
- PA House Consumer Affairs Committee (April 13, 2004, Harrisburg). SDF staff testified about renewable portfolio standards and how to support clean energy markets in Pennsylvania.
- “SDF and State Clean Energy Funds,” (April 20, 2004, Rotterdam, The Netherlands). SDF staff spoke at a conference organized by the Netherlands Office of Science and Technology about sustainable energy. Cost of attending the conference was paid in full by the Dutch.
- “Developing Sustainable Communities,” (May 11, 2004, Harrisburg). SDF spoke regarding its programs and available financing.
- “Getting to 10% Conference,” (May 12, 2004, Harrisburg), organized by Citizens for Pennsylvania’s Future. SDF spoke at the roundtable on funding renewable energy.
- “Pennsylvania Wind,” (May 26, 2004, Philadelphia). SDF staff spoke at the kick-off event for the PECO Wind campaign on the steps of the Art Museum.
- “Renewables 2004” and “Sustainable Energy Finance Forum,” (June 1-4, 2004, Bonn, Germany), organized by the German Federal Ministry for Economic Cooperation and Development and the United Nations Environment Program. As a representative of the Clean Energy States Alliance (and at no cost to SDF), SDF staff spoke about SDF’s financing activities to accelerate the market development of sustainable energy technologies in PA.
- “State Clean Energy Funds,” DOE/PJM Conference (June 14, 2004, Baltimore). SDF staff spoke at this Demand Response conference.
- “PV Programs of State Energy Funds,” (July 12, 2004, Portland, OR). SDF staff moderated a panel at the Solar 2004 national conference and spoke about the SDF PV grant program.
- Stakeholder field visit and tour of the Waymart Wind Farm and forum on challenges and opportunities facing the Pennsylvania wind industry (August 23, 2004, Waymart, PA).
- Presentation to Canadian visitors regarding SDF’s programs and available financing (September 14, 2004, Philadelphia), organized by U.S. DOE and the Philadelphia Energy Office.

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- Brief comments at the dedication of the new Media, PA municipal PV system (September 16, 2004, Media).
- Presentation to a Japanese delegation from Japan's Institute of Energy Economics (September 17, 2004, Philadelphia), organized by the PA PUC.
- "Energy Efficiency and Renewable Energy Forum," (September 22, 2004, Washington, D.C.). SDF staff participated in a national finance forum of DOE's EERE management.
- "SDF's Support for the Pennsylvania Fuel Cell Industry," (October 6, 2004, Kennett Square, PA), a presentation at the Delaware Valley Fuel Cell and Hydrogen Storage Forum hosted by Exelon PowerTeam.
- "Financing Energy Efficiency and Renewable Energy," (October 7, 2004, Willow Grove, PA), presentation to Representative Ellen Bard's energy seminar for businesses, institutions and local governments.
- Presentation to the Philadelphia Area Industrial Energy Users Group semi-annual meeting (October 14, 2004, King of Prussia, PA).
- Presentation to the Mid-Atlantic Renewable Energy Coalition (MAREC) annual meeting (October 14, 2004, Philadelphia).
- Pennsylvania Wind Meeting, hosted by the Clean Air Council and DOE (October 21, 2004, Philadelphia).
- Presentation to a renewable energy seminar and business networking meeting sponsored by the Sustainable Business Network (October 26, 2004, Philadelphia).
- Wind Developments in PA and the Northeast," (October 27, 2004, Albany, NY). SDF staff spoke at the Utility Wind Interest Group conference about the SDF wind program.
- Participation at the Association of Energy Engineers' field tour and networking meeting at University of Pennsylvania's new chilled water plant (October 28, 2004, Philadelphia).
- National Wind Coordinating Committee, (November 5, 2004, Washington, D.C.) SDF staff participated in a meeting of the NWWC Wildlife Workgroup to address concerns about siting wind projects in PA.
- American Wind Energy Association, (November 9, 2004, Washington, D.C.) SDF staff participated in a meeting of the AWEA Siting Committee to address concerns about siting wind projects in PA.
- Participated as a co-sponsor, judge and presenter in the Sustainable Business Venture Fair and Competition (November 18, 2004, Philadelphia).
- Participated in a Renewable Energy Certificates Trading workshop hosted by Swiss Re and the Clean Energy States Alliance (November 29, 2004, New York, NY).

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- U.S. Fish and Wildlife Service (November 30, 2004, Concord, NH). SDF staff participated in a meeting of the regional office staff to address concerns about siting wind projects in PA.
- Energy Security, (December 7, 2004, Washington, D.C. SDF staff made a presentation and participated in a meeting with U.S. Department of Homeland Security staff about the energy security implications of clean distributed generation projects.
- Presentation to PECO Energy's Business and Economic Development Staff (December 15, 2004, Philadelphia).

Marketing to Energy Service Companies

In 2004, SDF staff continued to market to Energy Service Companies ("ESCOs") that are active in the PECO Energy service territory. Marketing activities included joint calls and shared prospecting on the Philadelphia Eagles (Lincoln Financial Field), a large chemical and pharmaceutical company, an area landfill project, boiler manufacturer, mechanical engineering firm, area religious institutions and various trade associations (e.g., Association of Energy Engineers, Philadelphia Area Industrial Energy Users Group, etc.).

The Clean Energy States Alliance (www.cleanenergystates.org)

SDF continues to be an active participant in the programs and activities of the Clean Energy States Alliance ("CESA"), a trade association for managers of state clean energy funds throughout the United States. CESA works to increase communication and coordination among the 17 clean energy funds in 12 states and SDF continues to find this group of professional peers to be an important sounding board and test bed for SDF's programs. SDF staff attended both the spring and fall 2004 meetings of CESA members.

SDF was featured and quoted in the first annual report of CESA. This report – CESA Year One: A Report on Clean Energy Funds in the U.S. 2003-2004 – is available on the CESA website at

www.cleanenergystates.org/library/Reports/CESA%20Year%20One%20Report%20Final.pdf

The Public Fuel Cell Alliance

SDF continued to participate in the Public Fuel Cell Alliance, a group of U.S. and Canadian state and federal entities responsible for fuel cell deployment that seeks to accelerate the widespread adoption and commercialization of the technology through greater communication and cooperation among public funding agencies in North America.

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The Delaware Valley Green Building Council (www.dvgbc.org)

In 2004, SDF continued to support the start-up of the Delaware Valley Green Building Council by participating in several executive committee meetings and speaking at their sponsored conferences.

The Philadelphia Million Solar Roofs Partnership (www.phillysolar.org)

SDF staff continues to play an active role in the Philadelphia Million Solar Roofs Partnership. Many of the PMSR organizations are providing publicity for the SDF Solar PV program. SDF participated in several PV marketing meetings of PV installers and advocates that were organized by PMSR.

The Ben Franklin Technology Partners

SDF met several times during the report period with Ben Franklin Technology Partners (“BFTP”) portfolio managers to discuss prospects and referrals. SDF staff continues to serve on BFTP’s investment committee.

PPL Sustainable Energy Fund <http://www.sustainableenergyfund.org>

The Sustainable Energy Fund (“SEF”) invests in the following types of projects. Note that some monies are disbursed through grants. Others through Program Related Investments or PRIs:

- ◆ Renewable energy projects which draw power from naturally replenished sources. These may include solar power, wind power, geothermal power, or power generated from biomass sources.
- ◆ Clean energy projects that produce energy using technology and processes that have minimal impacts on the environment, such as micro turbines, fuel cells, distributed generation projects, etc.
- ◆ Energy Efficiency/Energy Conservation Projects - that save electricity or other energy. These may include green building technologies, efficient lighting, energy load management controls, etc.
- ◆ Grants - the SEF may disburse a limited number of grants to organizations seeking funding of projects consistent with the Fund’s mission, such as education projects. Research projects are not eligible for grant financing.

Several specific areas are noteworthy:

- The Fund made several commitments to commercial livestock farms for agricultural bio digesters that will produce electricity. These efforts complemented grants awarded through the Pennsylvania DEP and the Pennsylvania Department of Agriculture.

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- The Fund continued its support of green and high performance energy buildings through financing assistance of construction projects. These green projects include a commercial building for an economic development authority and affordable residential housing for a housing authority.
- The Fund participated with other state funds in revising our commitments to a major wind farm development to include a passive tax equity model.
- The Fund continued to support clean and renewable energy education programs through continued grants to educational institutions and organizations.

Also important was the Municipal LED Traffic Light Retrofits. With municipalities becoming increasingly aware of the savings available with the conversion to LED traffic lighting, there has been a significant increase in communication with SEF regarding the use of SEF funds for these conversion projects. The Staff believes these projects meet SEF mission through producing a significant reduction in energy consumption, and affects a great number of ratepayers through local government savings.

SEF approved \$125,000 grant program in conjunction with a 0.5% interest loan program for municipal LED Traffic Light Retrofits. Elements of the program as follows:

- SEF grant 50% of the cost of the LED lenses up to a maximum of \$25,000 for any municipality
- SEF offer financing for the remainder of the LED lens cost at 0.5% interest

The following municipalities have applied and been approved for the LED Traffic Light Retrofits Program:

- City of Bethlehem \$25,000
- City of Harrisburg \$25,000
- Hampden Township \$25,000
- Danville Borough \$25,000
- City of Lancaster \$25,000

In addition to the grant/loan program, the SEF in conjunction with the City of Lancaster presented an overview of the LED Traffic Signal Program to municipalities from Lancaster and York Counties at a gathering in Hershey. The City of Lancaster being the catalyst in this project, received a grant from the SEF in the prior fiscal year for their LED Traffic Light Retrofits. One of their deliverables, required by the SEF, was to perform an outreach /technology event in Central Eastern Pennsylvania to the Municipal Engineers.

Generally, in 2004 the Fund had Program Related Investments of \$1,828,500 and grant disbursements of \$213,528 (including the below listed and the LED). The following grants and program related investments were made by the fund during 2004.

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Grants

<i>Project</i>	<i>Amount</i>	<i>Comments</i>
Community Basics	\$4,900	To expand an in depth analysis of the implementation of co-generation for a supplementary heat project in Lancaster.
Eastern York School District	\$15,500	To purchase a wind turbine to provide hands-on instructional opportunities for high school students to learn about alternative energy systems
Green Building Conference	\$4,635	To support an annual conference held in Pittsburgh. SEF attended and participated at the conference.
Kaufman Gamber Physical Therapy	\$6,250	To support their grid tied solar PV system
PFCA (CESA)	\$3,000	A coalition of state, federal and international stationary fuel cell and hydrogen infrastructure programs, with a mission of accelerating the adoption and commercialization of stationary fuel cell technology and hydrogen infrastructure development
Unitarian Universalist Church	\$11,310	To support their church renovations by providing funding for the installation of sun tubes (skylights)
Alternative Fuels Renewable Energies Council	\$6,500	To support their annual conference on alternative fuels
Clean Energy States Alliance	\$9,433	For our membership support to the nationwide alliance of state energy funds
HersheyPark Exhibit	\$17,000	Green TEAM – renewable energy skit
Delaware/Lehigh Canal	\$10,000	To identify the electrical capacity of generation facilities

Program Related Investments

<i>Project</i>	<i>Amount</i>	<i>Comments</i>
Community Energy, Inc.	\$250,000	For an equity commitment for investment in common stock of the company
Oregon Dairy Farm	\$30,000	To support a dairy farm biodigester methane-to-electric generation project
Pine Hurst Acres	\$140,000	To support a hog farm biodigester methane-to-electric generation project
Zimmerman Farms	\$100,000	To support a cattle farm biodidester methane-to-electric generation project
Zimmerman Farms	\$300,000 (revolving line of credit)	To support the construction of a cattle farm biodigester methane-to-electric generation project
Petersburg Commons	\$1,000,000	To support affordable “green” energy efficient units using LEED standards for a 14 single family attached townhouse dwelling
Kaufman Gamber	\$8,500	To support the installation of a solar hot water system to heat the physical therapy pool
Community Energy, Inc.	\$1,500,000	26 MW Bear Creek Wind Farm

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Presentations, Meetings, and Conferences

The SEF Board and Staff held/attended various meetings for the calendar year 2004 including; four Board of Director meetings, one SEF Planning Session, seven Program Related Investment Committee meetings, six Human Resource Committee meetings, four Finance Committee meetings, and four PASEB meetings. The Staff and Board Members also held various meetings and telephone conference calls to discuss the renewal issues of the SEF related to the PPL rate case.

The SEF presented an overview of its activities and the project portfolios to the following Stakeholders:

- Office of Small Business Advocate
- PPL Industrial Customer Alliance
- Office of Consumer Advocate
- PPL Public Lighting Users Group

SEF raised awareness of SEF' activities and mission through meetings and presentations to the following organizations:

- Lehigh Valley Economic Development Corporation
- Small Business Development Center/Lehigh University
- Greater Wilkes-Barre Chamber of Business and Industry
- Borough of Danville Police Department
- Mountain Council of Governments – Hazleton
- Spring Township – re Green Building
- Harrisburg Regional Chamber - CREDC
- Scranton Chamber of Commerce
- PEDDA – Pennsylvania Economic Development Association
- Perry County/Petersburg Commons–14 Affordable Housing Units- Groundbreaking

SEF enhanced the energy education curriculum within several school districts through grants and loans. SEF participated in the groundbreaking ceremonies, and school assemblies, to promote renewable energy and energy efficiency awareness for the students and faculty for the following:

- Londonderry School – Harrisburg, LEED certified school
- Souderton Charter School –Souderton, Solar pv
- St. Stephens School – Harrisburg, Solar pv
- Lancaster School with Clean Air Council, Lancaster – Interactive website energy education
- Liberty High School, Bethlehem, with Clean Air Council – Interactive website energy education
- Eastern York School District, Wrightsville – Solar pv

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- HersheyPark, Hershey – Green Team renewable energy theater production
- Twin Valley School District, Elverson PA, Green Building

In conjunction with the City of Lancaster, the SEF presented an overview of the LED Traffic Signal Program to municipalities from Lancaster and York Counties at a gathering in Hershey. The program offered grants and loan incentives.

SEF co-sponsored with the other PA SEF's the "Clean Energy Expo", held April 1-2, 2004 in State College, PA.

In conjunction with the Penelec SEF, met with the DEP and representatives from Gamesa, and presented incentives to Gamesa for locating their manufacturing facility in Pennsylvania.

Participated and/or met with various organizations for the purpose of networking and marketing. They are as follows:

- Penn Future Conferences – Green Power Awards, Getting to 18%
- PA Energy Advisory Board
- PA Department of Environmental Protection
- PA Environmental Council
- Clean Air Council
- Alternative Fuels Council
- Clean Energy States Alliance
- The Public Fuel Cell Alliance
- Green Building Assoc. of Central PA
- The Ben Franklin Technology Partners
- PA Governor's Action Team
- PA Energy Development Authority
- PA Public Utility Commission
- PPL Energy Services
- U.S.D.A.
- TEAM PA
- Community Energy, Inc.
- Gemstone Group
- Mid Atlantic Renewable Energy Coalition
- Native Energy
- Energy Unlimited, Inc.
- Team AG
- Harrisburg University
- SEDA-COG
- Catamount Energy Corporation
- Allentown Technology Center
- Allentown First Financial Corporation

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- Hazleton Standard Speaker
- Alliance For Building Communities
- Cora Brooks Foundation
- City of Wilkes-Barre
- City of Harrisburg
- Borough of Danville
- Hampden Township
- City of Bethlehem
- City of Lancaster
- Provident Energy Consultants
- PA Department of Transportation
- McKissick Associates
- First National Bank in Newport
- PA Interfaith Climate Change
- Sustainable Development Fund
- The Energy Institute/Penn State University
- Community Foundation of the Alleghenies
- Berks County Community Foundation

West Penn Power Sustainable Energy Fund (WPPSEF) <http://www.wppsef.org>

In 2004, the West Penn Power Sustainable Energy Fund (WPPSEF) entered into its third year of providing funding to:

- Promote the use of renewable and clean energy;
- Promote energy conservation and energy efficiency; and
- Promote the start-up, attraction, expansion, and retention of sustainable energy businesses.

This information discusses the accomplishments made by the WPPSEF during the twelve-month period from January 1 to December 31, 2004. During that time frame, the WPPSEF activities increased substantially from previous years as its programs and initiatives became more visible within the West Penn Power service region and across the Commonwealth.

Financial Approvals

During 2004, the WPPSEF Board of Directors approved \$4,340,745 to co-fund twenty-four requests, which had a total value of \$45,599,614. A breakdown of these approvals is presented in Table 1.

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Table 1. 2004 WPPSEF Financial Approval Summary

Funding Type	Number	Project Costs	
		WPPSEF Funding	Total Project Cost
Program Related Investments	6	\$3,945,000	\$43,542,000
Strategic Initiatives	2	\$101,515	\$201,515
Grants	7	\$266,934	\$610,149
Memberships/ Sponsorships	9	\$27,296	\$1,245,950

Program-Related Investment Approvals

The WPPSEF Board approved \$3,945,000 to co-fund six program-related investments in 2004. These six projects had a reported project cost of \$43,542,000. The program-related investment approvals included the following:

Investments

<i>PROJECT</i>	<i>AMOUNT</i>	<i>COMMENTS</i>
Community Energy	\$500,000	To develop a 26 MW wind farm located near Bear Creek, PA
Soy Energy, Inc	\$400,000	To construct a soybean oil processing and distribution facility which will have the initial capacity to produce up to 1,000,000 gallons of soy oil produced from Pennsylvania soybeans
Omega Piezo, Inc.	\$465,000	To commercialize thermal management technologies that is focused primarily on reducing the cost of water heating. The WPPSEF is working with Omega Piezo and Pennsylvania's Governor Action Team to expand Omega's manufacturing facilities located in State College, PA. The reported cost for this project is \$1,000,000
Community Opportunities	\$1,000,000	To renovate and construct a LEED-certified high performance building in Uniontown, PA. The reported cost for this building is \$3,000,000.
Allegheny Power	\$80,000	To establish a customer choice program to provide West Penn Power ratepayers to option to purchase a portion of their electric supply from renewable energy sources such as Pennsylvania wind farms. The reported cost for this project is \$542,000
Southwest Penn Power (SWPP)	\$1,500,000	To develop a 15 MW electric generating facility at the Imperial landfill site in Allegheny County. The loan was contingent upon SWPP obtaining the gas rights and power purchase agreement for the project. The reported cost for this project is \$10,000,000

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Strategic Initiatives

The WPPSEF Board of Directors may develop and co-fund initiatives which they believe are of strategic interest to the WPPSEF. In 2004, the WPPSEF approved co-funding for the following two initiatives:

- \$100,000 as seed funding to organize and host the 2006 Pennsylvania Clean Energy Expo. This Expo will be built off of the successful 2004 Clean Energy Expo that was held at Penn State's Bryce Jordan Center on April 2-3, 2004. The Fund took the lead on organizing and raising the necessary funds to hold this event. The Expo drew over 11,000 attendees. The WPPSEF provided \$25,000 of seed funding to organize the Expo. These seed funds were used to leverage an additional \$115,000 to host and market the Expo. This event would not have been possible without the WPPSEF and the generous support of the Expo sponsors. All of the regional sustainable energy funds in Pennsylvania provided financial support and actively participated in the Expo. Based upon the positive feedback of the Expo sponsors, exhibitors, and attendees the WPPSEF agreed that the Expo should be held again and possibly in future years on a two-year cycle. In addition to the seed funding, the WPPSEF Board approved to support various Expo technical and community workshops through additional WPPSEF grantmaking efforts.
- \$1,515 to design, procure, and install two wind power educational displays along the Pennsylvania Turnpike (I-76) at the north and south Somerset Rest Plazas. From these displays, the 9 MW Somerset wind farm can be easily viewed. This effort was a collaborative effort between the WPPSEF, Pennsylvania Turnpike Commission (PTC), Robert and Tomalee Will, FPL Energy, GE Wind, Community Energy, and the Mid-Atlantic Renewable Energy Coalition. The PTC reports that an estimated 11 million travelers visit these two rest areas annually.

Grants

In 2004, the WPPSEF issued a request-for-proposals (RFP) to solicit proposals around specific program areas. These areas included: clean energy education and clean energy technology deployment. The 2004 RFP is provided in Appendix A.

The WPPSEF Board approved \$266,934 to co-fund seven grant requests in 2004. These seven projects had a reported project cost of \$610,149. These grant approvals included the following:

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Grants

<i>PROJECT</i>	<i>AMOUNT</i>	<i>COMMENTS</i>
Penn State's Center for Sustainability	\$24,549	To install a hybrid power generation (wind and solar) at the Center's demonstration facility. The reported cost of the system and educational program is \$52,288
Try-Again-Homes	\$24,160	To install a 3.1 kw solar photovoltaic panel at their office located in Washington, PA. the total projected cost of this program is \$24,160
Penn State's Science Lions	\$4,225	To support their in-school renewable energy science demonstrations in local K-12 school districts. The Science Lions is a volunteer student organization comprised of undergraduate and graduate-level students. The total projected cost of this program is \$4,810
Washington County Airport	\$13,000	To install a solar photovoltaic on-site power generation for their directional and nondirectional beacons. The WPPSEF monies will be leveraged with a Bureau of Aviation grant to support this solar project. The total projected cost of this program is \$65,000
Penn State's Public Broadcasting and Center for Science and the Schools	\$100,000	To develop an integrated web-based, multimedia renewable energy curriculum for Pennsylvania teachers. This project is being developed in conjunction with Pennsylvania's Department of Education and several public schools throughout PA. the total projected cost of the E-21 program is \$144,476
Fulton County Medical Center (FCMC)	\$50,000	To install a thermal solar desiccant cooling technology on part of the soon-to-be constructed medical center. The FCMC will be located near McConnellsburg, PA. The WPPSEF monies are being leveraged with a \$60,000 Pennsylvania Department of Environmental Protection Energy Harvest grant and \$110,000 by the applicant.
Fayette County Community Action Agency (FCCAA)	\$50,000	To install a high efficiency geothermal heat pump at an adjacent building, which is being renovated to LEED-standards. The building is located in Uniontown, PA. The total projected cost of the geothermal heat pump system is \$100,000.

Sponsorships & Memberships

In 2004, the WPPSEF approved nine funding requests that were used to co-sponsor conferences or as membership dues to sustainable energy associations. The WPPSEF Board approved \$27,296 to participate in these activities, which had a reported value of \$1,245,950. These approvals included the following:

- \$3,600 to the Pennsylvania Consortium for Interdisciplinary Environmental Policy and Penn State's Center for Regional Assessment to organize a series of meeting to promote the construction of high performance buildings on Pennsylvania's university campuses. The WPPSEF monies are being leveraged with the U.S. Department of Energy's Rebuild America program. The project cost for this workshop is \$18,000.

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- \$7,500 to the Alternative Fuels Renewable Energies Council to develop a biofuel consortium that will assist Pennsylvania's biofuel producers develop markets for these emerging fuels. The cost of establishing this consortium is reported to be \$35,000.
- \$5,000 to the Regional Economic Development District Initiative (REDDI) of South Central Pennsylvania to co-sponsor a conference called: "Renewable Energy Conference – A Pennsylvania Reality". The conference will be held on August 23 & 24, 2005 at the Harrisburg Area Community College. The focus of this conference is primarily on the agriculturally derived biofuels such as ethanol and biodiesel. The projected cost of this conference is \$30,000.
- \$1,000 to Penn Future to co-sponsor the 2004 Green Power conference and luncheon at Philadelphia on October 14, 2004.
- \$200 to the American Wind Energy Association (AWEA) for WPPSEF's 2005 membership dues.
- \$3,000 to the Public Fuel Cell Alliance (PFCA), which is a coalition of state and federal agencies responsible for fuel cell deployment. This is a collaborative effort with the Pennsylvania regional sustainable energy funds and other state sustainable energy funds. The reported cost of establishing PCFA is \$600,000.
- \$750 to the Alternative Fuels Renewable Energies Council for WPPSEF's 2005 membership dues.
- \$1,000 to Penn Future to co-sponsor the upcoming the 2004 "Getting to 10%" conference which was held at the Wyndam Hotel in Harrisburg, PA on May 12, 2004.
- \$5,246 to the Clean Energy States Alliance (CESA) for WPPSEF's 2004 membership dues. The reported cost of the CESA work is \$560,000.

Strategic Alliances and Marketing

The development, deployment, and promotion of sustainable energies technologies in Pennsylvania involves building a network of strategic alliances between federal agencies, Commonwealth agencies, Pennsylvania's regional sustainable energy funds, the private sector, and various organizations throughout the Commonwealth. In 2004, the WPPSEF continued to work hard to expand the breadth of its strategic alliances formed in previous years.

• *Pennsylvania Regional Sustainable Energy Funds*

The four regional sustainable energy funds in Pennsylvania work together to stimulate the development of sustainable energy technologies and businesses in Pennsylvania. The following collaborative activities were conducted in 2004:

- Pennsylvania's regional sustainable energy funds (PA-SEF) joined and were active partners in the Clean Energy States Alliance (CESA). CESA is a nonprofit organization that provides information and technical services to twelve clean energy funds in the United States. All of the Pennsylvania's Regional Sustainable

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Energy Funds committed funding to CESA in 2004. By pooling the funding, each of the regional funds reduced their overall funding commitment to CESA rather than providing sole funding.

- PA-SEFs worked closely to approve syndicated funding to the proposed 21.45 MW Bear Creek wind farm. This project was not completed in 2004 due to the failure to renew the Federal Production Tax Credit (PTC) until late in 2004. After the passage of the PTC, the project developers and PA-SEF staff met to discuss the wind farm expansion in 2005. It is anticipated that the financial closing for this project will occur by mid-year 2005.
- The PA-SEFs joined and were active in the Public Fuel Cell Alliance (PFCA) that was organized and managed by CESA. The Sustainable Development Fund (SDF) sent a representative to the PFCA meetings and reported their ongoing activities.
- The WPPSEF worked with the Sustainable Energy Fund of Central Eastern Pennsylvania and the Penelec Sustainable Energy Fund to approve and monitor the funding request of SEDA-COG to build a LEED-certified energy resource center at their Lewisburg office building. The WPPSEF approved funding for this project in 2003 contingent upon receiving finalized engineered drawings, a final project appraisal, and a letter of commitment from Citizens Bank who will serve as a co-funder of the project and will provide services to the Funds for monthly mortgage collection services. The Funds have monitored this project during 2004 and anticipates that SEDA-COG will begin construction in 2005.
- The 2004 Clean Energy Expo was organized by the WPPSEF. All of Pennsylvania regional sustainable energy funds co-funded the Expo and provided exhibits for the 11,000⁺ attendees.
- The WPPSEF worked with the Penelec Sustainable Energy Fund and the Metropolitan Edison Sustainable Energy Fund continued to provide financial and logistical support to Native Energy to facilitate the construction of farm-based anaerobic digesters to capture methane generated from livestock manure.

• *Pennsylvania Sustainable Energy Board*

The WPPSEF worked with the Pennsylvania Sustainable Energy Board (PA-SEB) to develop a series of Best Practice Guidelines in the following areas:

- Nomination, Election and Approval of Directors;
- Inquiries and Applications for Grants, Loans and Equity Investments;
- Code of Conduct, Conflict Of Interest and Confidentiality Policy; and
- Reconsideration and Appeal.

In addition, the WPPSEF provided an overview of its activities at the PA-SEB Annual Meeting, which was held in Hearing Room 5 at the Commonwealth Keystone Building on June 29, 2004. The WPPSEF provided handouts to the meeting attendees.

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- ***Pennsylvania Biomass Working Group***

The Pennsylvania Biomass Working Group (PA-BWG) is a coalition of agencies and businesses that are focused on promoting the use of Pennsylvania's indigenous biomass resources for bioenergy applications. The activities of the Working Group are co-funded by the U.S. Department of Energy and are managed by the Pennsylvania Department of Agriculture.

The WPPSEF is working with the PA-BWG to gain a better understanding on the amount, type, and distribution of Pennsylvania's biomass resources. The Pennsylvania Department of Environmental Resources, in collaboration with the WPPSEF and Penn State's Energy Institute, is co-funding the study that will develop an internet-based Pennsylvania biomass database that can be accessed by potential biomass end-users. The study will be completed in 2005.

- ***U.S. Department of Energy***

The U.S. Department of Energy (DOE) provides an enormous amount of technical and financial assistance to Pennsylvania. In 2004, the WPPSEF worked closely with DOE's Energy Efficiency and Renewable Energy (EERE) Mid-Atlantic Regional Office located in Philadelphia to become an EnergyStar partner and to partner in the 2004 Clean Energy Expo. The WPPSEF also worked with DOE's National Energy Technology Laboratory Pittsburgh's Office to showcase emerging state-of-the-art clean energy technology at the 2004 Clean Energy Expo. Both of these DOE Offices (EERE and NETL) provided critical support to the WPPSEF in 2004. The WPPSEF will work to strengthen these relationships in 2005.

- ***2004 Clean Energy Expo***

The 2004 Clean Energy Expo served a premier clean energy showcase for Pennsylvania. The Expo was held on April 1-2, 2004 at the Penn State's Bryce Jordan Center (BJC). The BJC is located at the Penn State's University Park campus in central Pennsylvania.

Some key Expo facts include the following:

- Targeted audience: consumers
- Targeted exhibitors: nationwide
- Expo base funding pooled from 26 sponsors,
- Pennsylvania regional SEFs provided financial support and exhibited;
- Expo offered free admission and parking,
- Expo had 270 exhibit spaces (exhibitor waiting list had to be established),
- Fifteen technical and consumer-based workshops held,
- 11,000 attendees over the 2-day event,
- Marketing included a mix of TV, radio, and print efforts, and
- Expo to be held on a 2-year cycle (next Expo is scheduled for 2006).

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- ***Penn State Public Broadcasting***

The WPPSEF has worked with Penn State's Public Broadcasting (WPSX) to develop a 26-minute documentary entitled: "Pennsylvania Energy" which showcases many of the sustainable energy technologies now taking root in Pennsylvania. The documentary aired on WPSX on November 21 to over 500,000 households in Pennsylvania. The Fund is working with WPSX to provide this documentary to other public broadcast stations for a coordinated airing throughout Pennsylvania in Spring 2005.

- ***Meetings & Networking***

The WPPSEF worked with several organizations and businesses in 2004 to discuss the WPPSEF activities and potential opportunities for collaboration. Key meetings and/or presentations were made with the following organizations:

- AFC First Financial,
- Access Energy,
- Agriculture Commodities,
- Allegheny Power,
- Allegheny Supply,
- Alternative Fuels Renewable Energy Council,
- Ballard Power Systems,
- Ben Franklin Technology Partners,
- Bergey Wind Power,
- Citizens for Pennsylvania's Future,
- Centre Area Transportation Authority,
- Community Energy,
- GE Wind,
- Gemstone Group,
- EnSave,
- FPL Energy,
- Fayette County Community Action Agency,
- Fulton County Medical Center,
- Generation Resource Holdings Company,
- Lowes,
- Native Energy,
- Omega Piezo,
- PBCI Allen Mechanical & Electrical Contractors,
- PJM Interconnection,
- Pennsylvania Biomass Working Group,
- Pennsylvania Department of Agriculture,
- Pennsylvania Department of Conservation and Natural Resources
- Pennsylvania Department of Environmental Protection

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- Pennsylvania Energy Development Authority,
- Pennsylvania State Small Business Development Center,
- Pennsylvania Sustainable Energy Board,
- Pennsylvania Technical Assistance Program (PENNTAP),
- Pennsylvania Turnpike Commission,
- Regional Economic Development District Initiatives of South Central Pennsylvania,
- SEDA-COG,
- Seton Hill University,
- Solar Power Industries,
- Southwest Penn Power,
- Tramco Inc.,
- U.S. Department of Energy (Coalition of Northeast Governors)
- U.S. Department of Energy (Energy Efficiency and Renewable Energy)
- U.S. Department of Energy (National Biomass Initiative)
- U.S. Department of Energy (National Renewable Energy Laboratory)
- Wisconsin Energy Conservation Corporation
- World Kitchen

Organizational

The WPPSEF continued to streamline its daily operations while improving the quality of its services in 2004.

• *WPPSEF Administration*

The WPPSEF administration consists of a seven-member Board of Directors that provide oversight to the Fund and approves funding requests and a staff that oversees the day-to-day operations of the Fund. Individual Board members of the WPPSEF are selected by the Fund through a search process and then are nominated to the Pennsylvania Public Utility Commission for formal approval.

The WPPSEF Board of Directors as of December 31, 2004 were:

- Linda Boxx, *WPPSEF President*
 - ▶ Katherine Mabis Foundation

- Ed Johnstonbaugh, *WPPSEF Vice-President*
 - ▶ Allegheny Power

- Rob Hosken, *WPPSEF Secretary*
 - ▶ Three Rivers Association for Sustainable Energy

- Pat O'Brien, *WPPSEF Treasurer*
 - ▶ WesBanco Washington

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- Michele Ponchione
 - ▶ World Kitchen
- Craig Kuennen
 - ▶ Glendale Water & Power
- Jim Stark
 - ▶ Family Service Center

The WPPSEF Board of Directors selected The Pennsylvania State University to serve as the Fund's administrator and the Economic Growth Connection of Westmoreland County to provide its financial services to the Fund. In addition, the Fund utilizes the services of Energetics and the Gemstone Group on an as-needed basis. The Fund strives to keep its total staff commitment to less than 2 full-time equivalent (FTE)/ year.

The WPPSEF staff as of December 31, 2004 were:

- Joel Morrison, Fund Administrator
 - ▶ The Pennsylvania State University (Energy Institute)
- John Skiavo
 - ▶ Economic Growth Connection of Westmoreland County

Additional support to the WPPSEF is provided by:

- Joe Badin
 - ▶ Energetics
- Gary Kleinman/ Adam Stern
 - ▶ Gemstone Group

• Board Meetings

The WPPSEF schedules its Board meetings at the beginning of each year. The full Board strives to meet every two months. In addition, the Board has developed three working groups (Administrative, Investment, and Grantmaking), which meet on an as-needed basis.

In 2004, the WPPSEF Board of Directors met as follows:

- February 12 (Location: Greensburg, PA)
- June 10 (Location: Greensburg, PA)
- August 12 (Location: Fallingwater, PA)
- August 24 (Location: Greensburg, PA)
- October 14 (Location: Greensburg, PA)
- December 9 (Location: Greensburg, PA)

In 2004, the April Board meeting was rescheduled to an extended Board meeting on June 10 due to the WPPSEF involvement in the Clean Energy Expo on April 2-3, 2004. The

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WPPSEF Board met twice in August due to the large number of funding requests submitted in its 2004 RFP.

- ***Web Site***

The WPPSEF web site was re-designed to better showcase the Fund's activities as the number and types of programs expanded in 2004. The WPPSEF web site is: <http://www.wppsef.org>.

- ***Awards***

The WPPSEF received two awards in 2004. These awards were:

Contributor of the Month. This award was present to the Fund by Penn State's Bryce Jordan Center for its vision and spirit of hosting the 2004 Clean Energy Expo.

Green Energy Fund Award. This award was presented to the WPPSEF for its financial support of Native Energy and for purchasing clean electricity for the WPPSEF organization. The award was presented in October 2004 at the Green Power luncheon.

Upcoming in 2005

The enthusiasm of the successful WPPSEF programs will position the Fund to expand its programs during 2005. As the Fund's activities become better known throughout the Commonwealth, the quality and quantity of funding requests is expected to grow during the upcoming year.

- ***Expanded Grantmaking***

The WPPSEF plans to expand its grantmaking efforts in 2005 by releasing two requests-for-proposals (RFPs). The Board plans to select projects sometime in the June timeframe for the first RFP and in December for the second RFP.

- ***Expanded Energy Star Efforts***

The WPPSEF became an Energy Star partner in March 2004. The WPPSEF plans to increase its support of the Energy Star program by developing a Keystone Home Energy Loan Program (HELP) which will provide incentive financing to West Penn Power residential ratepayers to purchase Energy Star qualified products. The program will be designed for expanded roll out throughout the Commonwealth should other entities wish to utilize the HELP infrastructure.

In addition, the WPPSEF will seek to promote the high performance building practices in the residential building sector. The Fund is currently exploring how it might deploy Energy Star building practices within the West Penn Power service region.

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- ***2006 Pennsylvania Clean Energy Expo***

In December 2004, the WPPSEF Board of Directors approved seed funding to begin organizing the next Clean Energy Expo. The upcoming Expo will be held at the Penn State's BJC in April 2006. Planning for the Expo is scheduled to begin in the spring 2005 with the planning committee to be in place by late summer 2005.

Financial Report

The WPPSEF contracted with Delisi & Associates, P.C. located in Greensburg, Pennsylvania to perform the Fund's 2004 annual financial audit. As of December 31, 2004 the WPPSEF net assets are reported as being \$12,162,844.

Conclusion

The WPPSEF is very proud of its programs and will expand them in the upcoming year. Without doubt, the deployment of sustainable energy technologies is slowly beginning to take root in Pennsylvania. The Commonwealth has become a leader in the deployment of wind power and high performance LEED-certified buildings. Legislation at the Federal and State-levels will stimulate the further deployment of sustainable energy technologies throughout Pennsylvania and the Nation.

In the upcoming year, the WPPSEF will continue to seek out innovative technologies and businesses that will help the Commonwealth and the Fund deploy clean energy technologies throughout Pennsylvania. By expanding its strategic alliances with a broad array of businesses and organizations, the Fund will seek to leverage its monies whenever possible to provide the maximum benefit to the West Penn Power ratepayer while strengthening the quality of its programs.