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FOREWORD

This Pennsylvania Sustainable Energy Board (PASEB) report provides a review of the activities of the regional sustainable energy funds (Regional Funds) during 2012. The Regional Funds are primarily public finance entities which make loans, investments, and grants for the benefit of ratepayers and the Commonwealth. The four Regional Funds include - the Metropolitan Edison/Pennsylvania Electric Company Sustainable Energy Fund (Met-Ed/Penelec SEF), the Sustainable Energy Fund (SEF), the Sustainable Development Fund (SDF), and the West Penn Power Sustainable Energy Fund (WPPSEF). The ongoing challenges for these funds are to meet their fund mission and to remain financially sustainable or to plan an exit strategy.

Collectively, the Regional Funds loaned slightly under $10 million and provided over $1 million in grants and strategic investments in 2012. Since their inception in 1999, the Regional Funds have led and continue to lead in the development of, and investment in, clean energy technologies including but not limited to wind, anaerobic digesters, fuel cells, and solar. In addition to clean energy technologies, the focus of the Regional Funds also includes energy efficiency and demand resources.

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 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.
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 support, and
- Projects which improve the environment in the companies' service territories, related to the transmission and distribution facilities (Met-Ed and Penelec only).

**FUNDING**

Under terms of the settlements, approximately $55 million was collected through these companies' distribution rates to promote the development of sustainable and renewable energy technologies. The SDF (in PECO Energy's territory) received an additional $18.5 million in funding over a five-year period as a result of the PECO/Unicom merger. On June 14, 2001, the Commission approved the merger of GPU Energy and FirstEnergy. As a result of that merger settlement, the Met-Ed and Penelec funds received an additional $5 million ($2.5 million each) in funding.

At this time, all four Regional Funds have ceased receiving ratepayer funding. The West Penn Power Sustainable Energy Fund (WPPSEF) received its last payment in January of 2012.

**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 for each fund drafted bylaws that address the responsibilities and powers of the Board and the fund administrators. The bylaws require 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 bylaws also address project selection and the funds' investment strategies.

The Commission approved the initial individual bylaws for each Regional Fund on the following dates:

- SDF - December 2, 1999,
- Met-Ed/ Penelec SEF - January 27, 2000,
- SEF - June 2, 2000, and

The Regional Fund Administrators include:

- Berks County Community Foundation (Met-Ed),
- Community Foundation of the Alleghenies (Penelec),
  - Met-Ed and Penelec follow the same funding approach and guidelines,
• The Reinvestment Fund - Sustainable Development Fund (PECO),
• The Sustainable Energy Fund (PPL), and
• The Energy Institute of Penn State University (West Penn Power).

The Regional Fund Administrators charge an annual fee for their services or calculate administrative expenses. These services and fees/expenses vary by Regional Fund and contract. An explanation of how the fees/expenses are calculated and a breakdown of the various fees/expenses are listed below:

Met-Ed/Penelec Sustainable Energy Fund
• The fee for the Met-Ed/Penelec Sustainable Energy Fund is 2.3% of total assets, assessed on a quarterly basis. This fee was established as being consistent with fee schedules of the Berks County Community Foundation and the Community Foundation for the Alleghenies, respectively, and takes into consideration staff time used for programmatic responsibilities and outreach including the fund website.
  ● Berks County Community Foundation (Met-Ed)
    ○ Fees for 2012 were $169,093.
  ● Community Foundation of the Alleghenies (Penelec)
    ○ Fees for 2012 were $200,428.

The Sustainable Development Fund (PECO)
• The administrative costs of the Sustainable Development Fund are set each year in the annual budget which is approved by the SDF board of directors. The administrative costs are a combination of staff time, direct expenses and indirect expenses (such as a pro-rata share of rent and other operating costs). The administrative budget request is discussed by TRF, the finance committee and the full SDF board and then approved by the SDF board.
  ○ Operating Expenses and Program Costs for 2012 were $155,874.

The Sustainable Energy Fund (PPL)
• The Sustainable Energy Fund is an independent, self-governing organization that does not pay an annual fee for management services. However, the SEF does calculate and report administrative costs which include management and general expenses. These are the expenses associated with the overall management of the organization excluding direct expenses associated with operating various programs.
  ○ Administrative Costs for 2012 were $245,397.
The West Penn Power Sustainable Energy Fund (WPPSEF)

- The West Penn Power Sustainable Energy Fund is a 501(c)3 non-profit organization headquartered in Greensburg, PA. WPPSEF is operated by a seven-member Board of Directors and an external administrative support staff. The Penn State EMS Energy Institute (University Park, PA) and the Economic Growth Connection of Westmoreland (Greensburg, PA) provide administrative services to WPPSEF. At the conclusion of each calendar year, WPPSEF retains a certified public accounting firm to conduct an external audit of WPPSEF operations. In 2012, WPPSEF retained the services of Delisi & Associates, P.C. to conduct its audit. The independent auditor’s report is provided to the PA PUC as part of WPPSEF’s reporting process. In 2012, the WPPSEF’s administrative expenses represented 1.58% of the WPPSEF net assets as of December 31, 2012.
  - Administrative Expenses for 2012 were $376,541.

The Regional Funds’ boards meet on a regular basis, with Commission staff attending as liaisons. The boards are required to submit 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 bylaws and develop a “best practices” business model for each of the Regional Funds. The Order also modified the reporting obligations of the Regional Funds.

In addition to the Commission designee, the PASEB members include a board member of each of the four Regional Funds, as well as designees for the Department of Environmental Protection (DEP), Department of Community and Economic Development (DCED), Office of Consumer Advocate (OCA), and Pennsylvania Environmental Council (PEC).

The PASEB held its last annual meeting in Harrisburg on January 10, 2013. The purpose of the meeting was for the funds to present accomplishments to stakeholders in a public forum.
In addition to the PASEB meeting, the Regional Funds met as a group in 2012 on February 28th in Reading and on June 28th at DeSales University in Center Valley, PA. The June meeting was hosted by the SEF at its Sustainable Energy Conference. The meetings of the funds are an essential means of discussing projects of mutual interest and better coordinating future activities.

APPROVALS OF REGIONAL FUNDS

The following table summarizes the Regional Funds' approvals of loans and grants for 2012. As shown, the Regional Funds approved nearly $11 million in support of renewable energy activities. Approximately $10 million was distributed in the form of loans and approximately $1 million was provided in grants.

<table>
<thead>
<tr>
<th>FUND</th>
<th>LOANS</th>
<th>GRANTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met-Ed/Penelec SEF</td>
<td>$675,000</td>
<td>$172,037</td>
<td>$847,037</td>
</tr>
<tr>
<td>SDF (PECO)</td>
<td>553,352</td>
<td>444,376</td>
<td>997,728</td>
</tr>
<tr>
<td>SEF (PPL)</td>
<td>3,081,092</td>
<td>0</td>
<td>3,081,092</td>
</tr>
<tr>
<td>West Penn Power SEF²</td>
<td>5,250,000</td>
<td>458,541</td>
<td>5,708,541</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td><strong>$9,559,444</strong></td>
<td><strong>$1,074,954</strong></td>
<td><strong>$10,634,398</strong></td>
</tr>
</tbody>
</table>

² The WPPSEF numbers are correct as of 12/31/12. However, the $1.5M loan to EnergyWorks was withdrawn in 2013.
END OF 2012 REGIONAL FUND BALANCES

The following table presents the Regional Fund balances as of the end of 2012. These balances were calculated based upon the Regional Funds' annual audits and the commitments that are tracked. Certain balances do not include long-term staffing expenses and leases. Finally, some of the balances do not include tentative grant commitments that have been made but have not been disbursed.

### 2012 Fund Balances

<table>
<thead>
<tr>
<th>Fund</th>
<th>Balance (12/31/2012)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Met –Ed SEF</td>
<td>$6,905,639</td>
</tr>
<tr>
<td>Penelec SEF</td>
<td>8,720,626</td>
</tr>
<tr>
<td>SDF (PECO)</td>
<td>10,603,778</td>
</tr>
<tr>
<td>SEF (PPL)</td>
<td>21,202,976</td>
</tr>
<tr>
<td>West Penn Power SEF</td>
<td>23,849,373</td>
</tr>
</tbody>
</table>
INTRODUCTION

From January 1, 2012, to December 31, 2012, the Metropolitan Edison Company/Pennsylvania Electric Company Sustainable Energy Fund (Met-Ed/Penelec SEF) approved financing totaling $847,037.

In December 2011, the sustainable energy funds launched a dedicated website at www.metedpenelecsef.org to provide information for seekers of grants, loans and equity investments. The new website is an essential means of distributing information about financial products, program offerings, application request forms, background information, reports, and links to related websites.

HIGHLIGHTS AND ACCOMPLISHMENTS

During the time period January 1, 2012, to December 31, 2012, Met-Ed/Penelec staff participated in numerous conferences and meetings as speakers and active participants to raise awareness of Met-Ed/Penelec SEF activities, including:

**Fund Outreach Activities 2012**

- Launched website (www.metedpenelecsef.org) with detailed information regarding the Fund and its activities.
- Attended the Funders Network for Smart Growth and Livable Communities conference to stay abreast of national green and sustainable building trends and network with national foundations that are actively involved in green and efficient building.
- Met with Connie Faylor from the Ben Franklin Partnerships regarding potential referrals for alternative and sustainable energy projects in the Met-Ed territory.
- Met with Jon Scott from the Greater Reading Economic Partnership regarding potential collaboration regarding sustainable energy projects.
- Attended webinar on green economy communication and messaging, where large foundations are working with Fortune 500 companies to tie the companies’ green efforts to bottom line results and job creation rather than framing it through a “do-gooder” lens. The goal of the effort is to change the conversation in Washington.
- Attended funder call regarding opportunities for older industrial cities to create jobs through sustainability projects.
- Met with Doug Meyers from Met-Ed regarding potential collaboration around sustainable energy projects.
- Checked kickstarter.org monthly to look for alternative energy start-ups.
- Developed mailing list within the Met-Ed territory for Fund potential outreach/awareness mailing.
- Met with Janet Milkman of the Delaware Valley Green Building Association to learn about that organization’s work to promote retrofitting buildings and building green schools.
- Met with a potential applicant regarding a business idea pertaining to municipal street light replacement.
- Began a regularly scheduled social media push through Facebook and Twitter to promote the Fund and the website.
- Submitted a letter of support to the USDA Conservation Innovation Grant program on behalf of a community group of agricultural representatives and alternative energy suppliers for a project that would create a mechanism to recycle agricultural plastics and turn them into energy (biomass).
- Conducted building tours at Berks County Community Foundation for environmental and economics classes.
- Attended PennFuture Energy Conference to learn about the latest trends in solar, wind, biomass, and natural gas in the PJM territory; Toured Philadelphia Navy Yard.
- Met with the City of Reading and Opportunity House regarding mattress recycling project.
- Talked and met with a variety of potential applicants about projects. Many were non-profits interested in building retrofits; others were potential private startups or expansions.
- Met with Sustainable Energy Fund managers from across Pennsylvania quarterly to share information on projects and activities.
- Attended and set up booth at PA BioMass Association Conference in Harrisburg.
- Presented Fund mission and history to Pittsburgh foundations and other partners, including The Heinz Endowments, Richard King Mellon Foundation, Hillman Foundation, Pittsburgh Green Building Alliance, and private businesses.
- Attended seminar on Solar Financing in Pennsylvania presented by PennFuture.
- Met with Greater Johnstown Career and Technology Center about electric and HVAC programs.
- Keynote Speaker at Second Annual Creation Care Gathering for Faith Communities presented by Interfaith Power and Light.
- Presented Fund in meetings to Rich Lunak (Innovation Works) and Mike Matesic (Idea Foundry).
- Toured Uniontown YMCA as part of due diligence for energy efficiency project at Johnstown YMCA.
- Meetings with Renewable Manufacturers Gateway to discuss projects of mutual interest.
- Presented and discussed projects with Ed Silvetti, Executive Director of Southern Alleghenies Planning and Development Commission.
- Attended sessions of the Energy Path conference at DeSales University.
- Toured wind farm in Cresson with Michael Barton of Eritec.
- Presented Fund during JARI (Johnstown Area Regional Industries) Financing Seminar.
- Presented Fund as part of CFA’s 2012 Founders’ Day celebrations.
- Worked with CTC on development of a tri-fold brochure to be used to promote the Fund.
- Conducted conference call regarding potential project to be syndicated with other SEFs.
- Met with Pennsylvania Environmental Council regarding statewide small and micro-hydro initiative.
- Printed business cards with web address on them to hand out to potential applicants.
Program Specific Activities 2012

- Regular team meetings with eCap Network, CJL Engineers, Pennsylvania Environmental Council and local partners regarding Inclined Place AMD discharge geothermal feasibility/prelim design.
- Site visit at Sandusky Lee to see rooftop solar array.
- Met for presentation and follow up with Cambria-Somerset Authority regarding potential small hydro project.
- Visited CEWA Technologies to see prototype rooftop solar collector dish.
- Met with City of Johnstown officials regarding opportunities for LED lighting upgrades and to share information regarding various vendors.
- Met with representatives from the City of Reading regarding three potential projects related to sustainability: mattress recycling (Opportunity House), a paper plant, and municipal recycling.
- Toured JC Blair Memorial Hospital with John Werling and Sue Myers of eCap.
- Met with Ron Pettingill of Epiphany to discuss status update and potential future projects.
- Met with CJL Engineering on Greater Prospect Co-op solar thermal installation in addition to monthly meetings with co-op committee.
- Met with John Werling of eCap regarding status updates and pending projects.
- Met with Mike Schiller and Valerie Beichner of GBA and tour of Prospect Co-op site.
- Met with John West regarding New Tech Wind project.
- Represented the Fund at GBA Laurel Highlands’ Branch networking event.
- Met with Rosalie Danchanko regarding potential Coal Boost project.
- Toured Allegheny Portage Railroad National Historic Site with Walt Kalista and Brad Aughinbaugh regarding potential energy efficiency projects.
- Met with Hydroconfidence regarding proposed project.
- Met with BARD regarding proposed project and site options.
- Toured Scottish Heights, Jefferson County, with Mike Sahlaney (SEF attorney) regarding installation of solar farm.
- Toured Panda Plastics Recycling as a potential project.
- Toured Conrad Flatiron Building as a potential LEED renovation project with Andrew Reed of EDA and Ed Silvetti of SAPDC.
- Presented Fund to Bette Slayton of the Bedford County Economic Development Authority.
- Met with Greater Johnstown YMCA about CHP for its renovation and expansion.
## FINANCIAL APPROVALS

### Grants

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
<th>Comments</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mid-Atlantic Renewable Energy Association</td>
<td>$21,000</td>
<td>Residential Solar Educational Video</td>
<td>3/15/12</td>
</tr>
<tr>
<td>Berks County Redevelopment Authority</td>
<td>$10,000</td>
<td>Geothermal for Apartment Complex</td>
<td>3/15/12</td>
</tr>
<tr>
<td>Greater Prospect, Inc.</td>
<td>$45,900</td>
<td>Solar Thermal/LEED Commissioning for Food Co-Op/Laundromat</td>
<td>3/15/12</td>
</tr>
<tr>
<td>Cambria County</td>
<td>$10,337</td>
<td>War Memorial Efficiency/LED Upgrade</td>
<td>3/15/12</td>
</tr>
<tr>
<td>Green Business Alliance</td>
<td>$25,400</td>
<td>Northwest Branch Service Enhancement</td>
<td>7/26/12</td>
</tr>
<tr>
<td>Southern Alleghenies Planning &amp; Development Commission</td>
<td>$10,000</td>
<td>Energy Audits for Public Libraries</td>
<td>7/26/12</td>
</tr>
<tr>
<td>Sandusky Lee</td>
<td>$25,000</td>
<td>Solar Panel and Inverter Installation</td>
<td>7/26/12</td>
</tr>
<tr>
<td>Johnstown Redevelopment Authority</td>
<td>$10,000</td>
<td>LED Lighting for Urban Trail</td>
<td>11/30/12</td>
</tr>
<tr>
<td>JC Blair Memorial Hospital</td>
<td>$14,400</td>
<td>Energy Auditing Services</td>
<td>11/30/12</td>
</tr>
<tr>
<td>*Phipps Conservancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$172,037</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*A grant in the amount of $7,820.86 was made to Phipps Conservancy for solar panel installation for the zero-energy living building. However, this was the Met-Ed/Penelec SEF’s portion of a settlement made to all four of the PA SEFs and was being held by West Penn SEF; therefore the money did not actually come out of the Met-Ed/Penelec Fund.

### Loans

<table>
<thead>
<tr>
<th>Project</th>
<th>Amount</th>
<th>Comments</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydroconfidence</td>
<td>$50,000</td>
<td>Oil to Natural Gas Conversion Equipment</td>
<td>7/26/12</td>
</tr>
<tr>
<td>Sandusky Lee</td>
<td>$25,000</td>
<td>Solar Panel and Inverter Installation</td>
<td>7/26/12</td>
</tr>
<tr>
<td>CEWA</td>
<td>$500,000</td>
<td>Solar Concentrator Dish</td>
<td>10/1/12</td>
</tr>
<tr>
<td>One Solar</td>
<td>$100,000</td>
<td>Manufacturing Solar Grade Silicon</td>
<td>11/30/12</td>
</tr>
</tbody>
</table>

**Total** $675,000
Since inception, the Met-Ed/Penelec SEF has approved 113 grants totaling $2,342,075; 34 loans totaling $20,493,724; and three equity investments totaling $1,600,000. The fund denied 46 grant requests, 26 loan requests and seven investment opportunities. Denials occurred because the proposed projects did not meet the Fund’s mission or had technological, financial and/or market difficulties.

**BOARD ACTIVITIES**

The Met-Ed/Penelec SEF Advisory Committee consists of eight members, whose two-year terms are staggered so the terms of approximately half of the members end each year. Current members can run for re-election. The Advisory Committee Members for January 1, 2012 through December 31, 2012 were as follows:

<table>
<thead>
<tr>
<th>Name</th>
<th>Representing</th>
<th>Term Expires</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Ubinger, Chair</td>
<td>Representing Environmental Groups</td>
<td>7/15/2013</td>
</tr>
<tr>
<td>Mary Beth Smialek</td>
<td>Representing First Energy</td>
<td>7/15/2013</td>
</tr>
<tr>
<td>Beverly Weaver</td>
<td>Representing Weatherization Groups</td>
<td>7/15/2014</td>
</tr>
<tr>
<td>Derick James</td>
<td>Representing Commercial User Groups</td>
<td>7/15/2013</td>
</tr>
<tr>
<td>(resigned 10/12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Edward Miller</td>
<td>Representing Commercial User Groups</td>
<td>7/15/2013</td>
</tr>
<tr>
<td>(resigned 10/12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brian Vayda</td>
<td>Representing Independent Power</td>
<td>4/1/2012</td>
</tr>
<tr>
<td>Frank Plank</td>
<td>Representing Industrial User Groups</td>
<td>4/1/2012</td>
</tr>
</tbody>
</table>
INTRODUCTION

The Sustainable Development Fund’s portion of this Annual Report was prepared by The Reinvestment Fund (TRF), the manager of the Sustainable Development Fund (SDF), to summarize the initiatives and accomplishments of SDF in calendar year 2012.

ACCOMPLISHMENTS

Loans and Investments

As noted in earlier annual reports, TRF’s major energy activity continues to be deploying $20.5 million of American Recovery and Reinvestment Act funding for building energy improvements through the Pennsylvania Green Energy Loan Fund (GELF) and the EnergyWorks Loan Fund. TRF’s GELF funding can be lent directly to eligible projects, but the EnergyWorks funding had to be used for a Loan Loss Reserve and for an Interest Rate Buy Down, which enabled TRF in 2011 to raise $3 million from the Bank of America and $3 million from the Kresge Foundation for energy lending. To bring the EnergyWorks lending capital up to TRF’s goal of $8.25 million, TRF committed $2.25 million of SDF capital for EnergyWorks lending.

Both GELF and EnergyWorks finance only eligible energy measures in a project budget. All projects must satisfy a 25% energy savings, whether the project involves retrofit (25% energy savings from historical consumption), gut rehab (25% less energy use than for existing buildings of the same building usage) or new construction (25% less energy use than the current energy code).

In 2012, TRF successfully closed on loans using $9,550,000 of GELF financing, $1,081,613 in EnergyWorks financing and $258,369 in stand-alone SDF financing. The SDF dollars in the three EnergyWorks loans and the one SDF loan closed in 2012 totaled $553,352 as shown on the following table:

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3 The Bank of America is providing a total of $7.0 million to TRF through a 10 year, 1% loan and $500,000 through a grant for technical services and administrative costs. The Bank of America loan matures in December 2021. TRF allocated $3 million of this funding for EnergyWorks and the balance will be used for energy lending in the Philadelphia metropolitan area and in Baltimore (where TRF has an office).

4 The Kresge Foundation capital is being provided through a 10 year loan, a 1% interest for the first seven years and then 4.5% interest for the balance. The Kresge Foundation loan matures in December 2021.

5 For detailed information about TRF’s energy lending work, please visit [www.TRFund.com/EnergyLoans](http://www.trfund.com/sdf).
<table>
<thead>
<tr>
<th>Project</th>
<th>Location</th>
<th>SDF $</th>
<th>Total Energy $</th>
<th>Project Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterworks</td>
<td>Philadelphia</td>
<td>258,369</td>
<td>258,369</td>
<td>Gut rehab of a formerly vacant mill building into modern office space.</td>
</tr>
<tr>
<td>Ambler Boiler House</td>
<td>Ambler</td>
<td>20,453</td>
<td>2,500,000</td>
<td>Gut rehab of a 1920’s boiler plant next to the Ambler regional rail station into</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>commercial office space.</td>
</tr>
<tr>
<td>Esperanza College</td>
<td>Philadelphia</td>
<td>69,985</td>
<td>1,056,613</td>
<td>Gut rehab of warehouse space into classrooms, labs, and offices for Esperanza College</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>and Eastern University.</td>
</tr>
<tr>
<td>1400 Spring Garden</td>
<td>Philadelphia</td>
<td>204,545</td>
<td>2,500,000</td>
<td>Gut rehab of the former Pennsylvania State Office Building in Philadelphia into</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>204 rental apartments.</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
<td><strong>553,352</strong></td>
<td><strong>7,656,613</strong></td>
<td></td>
</tr>
</tbody>
</table>

The three loans involve 426,253 square feet of building space and the overall building project budgets for these four loans total $79,248,893. The estimated energy savings of these three projects is 9,086 million BTUs per year.

In 2012, TRF obligated an additional $2,750,000 of GELF financing, $500,000 of EnergyWorks financing\(^6\) and $1,750,000 of Bank of America energy financing (the Bank of America capital for Baltimore). TRF expects these loans to close in 2013.

As of December 31, 2012, SDF had approved a cumulative total of 27 loans totaling $10,980,549 and four equity investments totaling $3,722,000, for a combined total of $14,702,549. The total budget of these 31 projects supported by SDF is approximately $205,709,872.

**Core Grants**

As reported earlier, the SDF board decided to suspend the core grant program on June 24, 2008. In 2012, SDF approved no new core grants, so the core grant total remains the same as shown in the 2011 annual report: a cumulative total of 87 core grant applications totaling $1,769,858 in SDF support towards projects with a total value of approximately $98,406,292. Four of these successful applicants withdrew prior to execution of a grant agreement, leaving 83 projects under executed grant agreements with SDF.

As of December 31, 2012, SDF had paid $1,312,680 to its core grantees and had made a budget reduction of $439,678 to the core grant program budget to reflect the four unexecuted agreements and the grants

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\(^6\) TRF will not be using SDF capital in the one new EnergyWorks loan approved but not closed in 2012 because of the deadline from the Bank of America and the Kresge Foundation to deploy their dollars by December 2013.
coming in under budget. At the close of 2012, there was one open core grant with an unexpended balance of $10,000.

**PECO-UNICOM MERGER PROGRAMS**

**The Pennsylvania Wind Development Program**

In the 2000 settlement of the PECO-Unixmerger proceeding, SDF received $12 million for the purpose of developing new Pennsylvania wind projects. SDF started 2012 having paid a total of $11,588,023 to various Pennsylvania wind projects, leaving a balance of $411,977.

In June, 2012, the SDF board approved a grant of $411,977 to the Renewable Energy Center (REC) at Saint Francis University in Loretto, Pennsylvania to support their community wind and small wind development activities. The REC will be purchasing needed wind measuring equipment (three new 60 meter met towers, a SODAR sonic wind measuring system and an acoustic and ultrasonic bat detection system) as well as updating and expanding their on-line wind maps for Pennsylvania (adding 30 meter and 100 meter data as well as AWS Truepower’s Small Wind Estimator). The SDF grant will also support some REC staff time and some of the expense of maintaining and repairing the wind equipment.

With this grant to the REC, SDF has fully deployed all of its Pennsylvania Wind Development Program funding. SDF provided support to seven of the first eight wind farms to be built in Pennsylvania. The seven wind farms that received wind energy generation grants from SDF have a total generation capacity of 257 MW.

As of the end of 2012 – 11 years after SDF’s first wind grant - there are now 24 wind projects operating in Pennsylvania, with an installed capacity of 1,334.5 MW, generating about 3,507,066 MWHs a year. It is safe to say that the modest $12 million investment made by SDF helped launch a vibrant wind industry in Pennsylvania and fulfilled the intent of the PECO-Unixmerger settlement.

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7 Please see SDF’s annual reports in earlier years for a full discussion of the Pennsylvania wind program and projects.

8 In the 2011 Annual Report, SDF reported in the PA Wind Development section that its wind expenditures were $11,593,093 based on SDF records, but TRF’s financial system showed the wind expenditures to be $11,588,023, a difference of $5,070. This was probably the result of TRF’s financial system mislabeling an earlier wind consultant’s invoice as an SDF core expenditure rather than a wind program cost. SDF has used the TRF audited figure and committed $411,977 in the final wind grant to be consistent with TRF’s audited financial statements.

9 SDF wind energy production incentive grants went to the Mill Run, Somerset, Waymart, Meyersdale, Bear Creek, Casselman and Allegheny Ridge wind farms. Green Mountain Energy’s Garrett project was the early Pennsylvania wind farm that did not receive SDF grant support.

10 Source: Citizens for Pennsylvania’s Future - [www.pennfuture.org/content.aspx?MenuID=1&SubSubSectionID =192&SubSectionID=178&SectionID=344](http://www.pennfuture.org/content.aspx?MenuID=1&SubSubSectionID =192&SubSectionID=178&SectionID=344)
The Solar Photovoltaic Grant Program

In the 2000 settlement of the PECO-Unicom merger proceeding, SDF received $4 million for the purpose of supporting solar photovoltaic installations in Pennsylvania. SDF supplemented this solar funding through a solar PV grant from the Pennsylvania Energy Development Authority ($701,366) and through the net proceeds SDF has earned from the registration and sale of Solar Renewable Certificates (SRECs) in the amount of $328,668,11 for a total SDF solar program budget of $5,030,034.12

As of December 31, 2012, SDF had committed grant support to 232 solar PV installations totaling 922 kW of generating capacity. The total grant commitment for these systems is $3,765,384. These figures are unchanged from the 2011 annual report since SDF has stopped accepting applications for the Solar PV Grant Program.

In 2012, SDF paid out $48,871 of system subsidies, bringing the total disbursed PV grants to $3,709,034 for 228 systems. As of December 31, 2012, there was $59,000 of committed but undisbursed subsidies for four systems, three of which have been installed but had not received final approval for payment and one system was in the final design stage.

The other major component of the Solar PV Grant Program is the program administration, which has included installer training, education, system inspections, GATS registration and other program tasks. As of December 31, 2012, SDF has paid a total of $657,849 for the PV program administration. Because this work is continuing (albeit at a lower rate than in prior years), the SDF board, at the June 2012 board meeting, approved adding $7,500 to Ron Celentano’s contract for administering the SDF solar program.

As of December 31, 2012, SDF had an uncommitted balance of $599,301 in its solar program. Rather than reopen the Solar PV Grant Program, the SDF board and staff would like to use this funding to demonstrate a new business model for solar PV – the community solar model.

A community solar project is a large, utility scale PV system that is owned or financially-supported by numerous electric customers who “own” a portion of the system and receive net metering credit for the electricity generated by their share. The community solar model can deliver solar at a lower cost per watt because:

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11 As of December 31, 2012, SDF had made twelve sales for a total of 1,810 SRECs, netting $475,078 after commissions. The SREC proceeds are shared 50/50 with many of the system owners (while many other owners allow SDF to retain 100% of the SREC proceeds). The total SREC payments given to the system owners is $146,411 and SDF’s share, which is dedicated to the Solar PV Grant Program, is $328,668. SDF made no new sales of SRECs in 2012, but did sell 200 SRECs in March, 2013 (at $22 each compared to earlier sales as high as $325 per SREC). SDF continues to register the electricity generation of its participating grantees on GATS and is awaiting more favorable market conditions to make additional sales.

12 Please see SDF’s annual reports in earlier years for a full discussion of the solar photovoltaic program and projects.
• Economies of scale in purchasing hardware
• Economies of scale in constructing the system because it all goes up at one consistent place and design, rather than many smaller and very different installations
• As long as the project owner is a for-profit business, eligibility for federal investment tax credit treatment.

The current approach of deploying solar does not work for many different customers:

• Customers whose homes or businesses have poor solar access (due to shading from trees or other buildings or poor roof pitch or orientation)
• Customers who are tenants rather than owners
• Customers who may be moving in a few years and do not want to risk finding a buyer who loves both their home and solar.

Examples of the community solar model include the Sacramento Municipal Utility District’s (SMUD) Solar Share program (see www.smud.org/en/residential/environment/solar-for-your-home/solarshares/index.htm) and Colorado’s Solar Garden legislation (see www.leg.state.co.us/clics/clics2010a/csl.nsf/fsbillcont3/490C49EE6BEA3295872576A80026BC4B?open&file=1342_enr.pdf and www.solargardens.org/). Participating customers are able to net meter their share of the community project’s monthly output against their own electric bill as if the solar modules were on their own roof.

Unfortunately, Pennsylvania’s current net metering legislation and regulations do not support the net metering needed by community solar.13 So SDF staff has targeted the Philadelphia Navy Yard as the location for its community solar project. This is a promising location because the Philadelphia Industrial Development Corporation (PIDC), the manager of the Philadelphia Navy Yard, owns and operates the local distribution grid and is free to adopt a broader virtual net metering policy. The Navy Yard has many tenants who are committed to sustainability and clean energy systems and would likely be interested in shares of a community solar project. In addition, PIDC and the Energy Efficient Building Hub (EEB Hub) are undertaking the GridStar project, a solar PV and storage project that is a natural partner to a community solar project. By including meters to track current flow around the system, SDF hopes to track how a community solar system uses the local distribution grid. SDF would then take this data to propose reform of Pennsylvania’s net metering rules, including an appropriate community solar distribution tariff to enable community solar projects elsewhere in Pennsylvania.

SDF has been working with PIDC, the EEB Hub, Penn State and others at the Philadelphia Navy Yard and hopes to finalize the project design and award funding in 2013.

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13 Pennsylvania does have virtual net metering, but it is limited to “properties owned or leased and operated by a customer-generator and located within two miles of the boundaries of the customer-generator’s property and within a single electric distribution company’s service territory...” 25 PA Code §75.12 - definition of “virtual meter aggregation.” This allows a customer who owns a distributed generation facility to net meter other properties it owns or leases within a distance of two miles, but does not allow virtual net metering when the generator and the other customers are not the same entity, as would be the case with community solar.
As with wind, Pennsylvania’s progress in solar PV since 2001 has been remarkable. From a handful of small solar PV installations then, Pennsylvania now has 6,685 operating solar PV systems with a total generating capacity of 191.4 MW of operating solar PV capacity.\textsuperscript{14} Even more surprising is that Pennsylvania now has 27 operating solar installations that are 1 MW and larger, with the largest - 11.497 MW – being the PA Solar Park, LLC in Nesquehoning, Carbon County. SDF likes to think that its Solar PV Grant Program, as the forerunner to the much larger Pennsylvania Sunshine Program and the other Commonwealth efforts to promote solar, had a modest role in this remarkable achievement.

**The Renewable Energy Public Education Program**

In the 2000 settlement of the PECO-Unicom merger proceeding, SDF received $2.5 million for public education about renewable energy. In June of 2012, the SDF board approved the following four grants of public education dollars:

<table>
<thead>
<tr>
<th>Grant Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citizens for Pennsylvania’s Future (to support the 2012 PennFuture Clean Energy Conference)</td>
<td>$1,500</td>
</tr>
<tr>
<td>Philadelphia Solar Energy Association (to support the 2012 and 2013 Junior Solar Spring student education events)</td>
<td>$3,000</td>
</tr>
<tr>
<td>Delaware Valley Green Building Council (to support education and outreach work about Philadelphia’s building energy benchmarking law)</td>
<td>$4,249</td>
</tr>
<tr>
<td>Mid-Atlantic Solar Energy Industries Association (to prepare a report on the value of electricity generated by solar PV in Pennsylvania and New Jersey)\textsuperscript{15}</td>
<td>$25,000</td>
</tr>
</tbody>
</table>

With these four new grants in 2012, SDF has now deployed all of its Public Education Program funding. Since the first public education grant was awarded in September of 2001, SDF awarded 49 grants for a wide variety of educational activities including grass roots activities (workshops, conferences, renewable energy ambassadors, school programs, etc.) mass media efforts (radio and television), a community campaign (20 communities competing to sign up clean energy customers), and a customer rewards program (providing rewards for signing up clean energy customers). SDF also contracted with two talented experienced and capable individuals (Maureen Mulligan and Kate Maxwell) to coordinate these activities throughout the program. These activities are summarized in the following table.\textsuperscript{16}

\textsuperscript{14} This is the count of systems registered in AEPS program as of February 5, 2013.


\textsuperscript{16} As with the wind program, there is a modest discrepancy between SDF records and the official TRF audits about the total disbursements in the public education program, probably the result of TRF’s financial system mislabeling earlier public education invoices as a core SDF expenditures. According to the TRF audit, the public education program has $16,600 uncommitted funds as of 12/31/12. SDF will award an additional $16,600 in public education grants in 2013 to fully commit the public education dollars as tracked by TRF’s finance system and audited financial statements.
<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>Number of Grants/Contracts</th>
<th>Total Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grass-roots programs</td>
<td>35</td>
<td>$934,120</td>
</tr>
<tr>
<td>Mass media efforts</td>
<td>4</td>
<td>$807,612</td>
</tr>
<tr>
<td>Community campaign</td>
<td>1</td>
<td>$300,000</td>
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<tr>
<td>Customer rewards</td>
<td>9</td>
<td>$311,825</td>
</tr>
<tr>
<td>Coordination</td>
<td>2</td>
<td>$171,444</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>51</strong></td>
<td><strong>$2,525,001</strong></td>
</tr>
</tbody>
</table>

**ORGANIZATIONAL ISSUES**

**Board Membership**

The SDF board is comprised of seven members, whose two-year terms are staggered so that the terms of an approximately equal number of directors end each year. Given the failure to obtain enough nominations for the 2012 year, SDF board and staff decided to extend the terms of the current board members. The Public Utility Commission agreed that the SDF bylaws allow members to server until their successor was approved by the Commission, so the SDF board in 2012 had the following members:

- Kurt Bresser, Temple University
- Alan Grant, Keating Environmental Management
- James Harven, Constellation Energy
- Frank Jiruska, PECO
- Albert Koenig, ARB Geowell
- Muscoe Martin, M² Architecture
- Janet Milkman, Delaware Valley Green Building Council

**Board Meetings**

During 2012, the SDF Board met on June 25. At this meeting, the board approved the 2012 annual program plan, the 2012 SDF budget, one wind development grant, four public education grants and the extension of the contract for the solar photovoltaic program administrator. Because SDF uses the TRF loan committees for approval of its energy loans rather than the SDF board, there is a reduced need for SDF board meetings now that SDF’s major work is lending rather than grant making.

**Coordination with the Other Pennsylvania Sustainable Energy Funds**

In 2012, the regional sustainable energy funds met as a group on February 28 in Reading and on June 28 during the Energypath 2012 conference to discuss projects of mutual interest and to better coordinate future activities.

20
Pennsylvania Sustainable Energy Board

SDF staff participated in the Pennsylvania Sustainable Energy Board 2012 annual meeting, which was held on January 10, 2013.

FINANCIAL REPORT

SDF has received a total of $31,815,216 from PECO Energy. This figure consisted of eight quarterly payments in 1999 and 2000 from distribution charges that total $3,335,216 and the lump sum accelerated payment of PECO quarterly payments through December 31, 2006 totaling $9,980,000. SDF had also received, pursuant to the terms of the PECO Energy/Unicom merger agreement, three installments of $4,000,000 for the Pennsylvania Wind Development Program (total of $12,000,000); five annual installments of $500,000 for public education about renewable energy (total of $2,500,000); and four annual installments of $1,000,000 for SDF’s solar photovoltaic program (total of $4,000,000). PECO’s financial support of SDF ended with the last payment received on December 31, 2006.

SDF’s audited financial statements for the twelve-month period ending December 31, 2012 show total financial income of $229,718 and net financial income of $119,782 for the period. Operating expenses and program costs for 2012 totaled $155,874. SDF experienced a deficit of $36,092 for the year. On December 31, 2012, SDF held $7,349,705 of funds pending disbursement for its loans in SDF’s cash and investment accounts.

As of December 31, 2012, there were $411,977 of committed but undisbursed Wind Development program funds and $22,849 of undisbursed and uncommitted Renewable Energy Public Education program funds ($6,249 in undisbursed funds and $16,600 in uncommitted funds). The December 31, 2012 audited financial statement shows $392,956 of undisbursed and uncommitted Solar PV Grant Program funds, but this does not include the PEDA grant and the SREC revenue, which brings the total Solar PV uncommitted dollars to $599,301.

Outstanding receivables (loans, energy performance contract leases and outstanding investments in portfolio companies) as of December 31, 2012 totaled $3,284,251. SDF’s liabilities at December 31, 2012 totaled $51,993 and were comprised of general accounts payable and accrued expenses of $19,214, a payable to TRF of $16,603 and amounts payable to third parties of $16,176.

Audited financial statements for the year ending December 31, 2012 are available upon request by contacting Roger Clark, Fund Manager, Sustainable Development Fund, The Reinvestment Fund, 1700 Market Street, 19th Floor, Philadelphia, PA 19103.
INTRODUCTION

Since our founding in 1999 through a settlement approved by the PA PUC during the state’s electric deregulation proceedings, Sustainable Energy Fund (SEF) has been a leading funder of sustainable energy projects. Over the years, the organization has expanded its services with the goal of seeking a sustainable energy future.

Today, in addition to sustainable energy project funding, SEF engages in sustainable energy awareness efforts, providing sustainable energy education and intervening in regulatory proceedings that impact energy conservation, energy efficiency, or renewable energy.

SEF is an independent, nonprofit 501(c) (3) corporation that assists energy users to strive for a future where energy is harvested, converted, distributed and utilized in a manner that allows all to meet their energy needs without compromising the ability of future generations to meet their needs.

We work with all types of entities including small businesses, municipalities, school districts, non-profits, farmers, manufacturing facilities, warehouses, and transportation companies to reduce the consumption of energy from non-sustainable resources by reducing or removing the financial, educational and regulatory barriers that prevent these organizations from generating energy from renewable resources and from implementing energy efficiency improvements.

SEF remains dedicated to helping energy users make informed decisions and in financially supporting projects that meet specific criteria. SEF is consistent and transparent in its financial reporting and execution of operations.

HIGHLIGHTS AND ACCOMPLISHMENTS

Educational Initiatives

Energypath, SEF’s educational program, is implemented to inform all energy users of ways they can create sustainable changes in the reduction of energy consumption.
The goals of Energypath include:

- Encourage and promote energy efficiency and renewable energy
- Support and inform teachers, educators, and group leaders
- Ensure that current information and data is available to energy users

Energypath’s educational programs include: the Energypath 2012 conference, Resource Locator/Interactive Website, Educational Outreach/Speakers Bureau, Power Lunches, and Regulatory Monitoring.

**Sustainable Energy Conference 2012 at DeSales University, Center Valley, PA**

The 2012 Sustainable Energy Conference was held June 25-29, 2012, at DeSales University in Center Valley, PA. The theme was America’s Sustainable Future. The pre-conference boot camps brought the industry’s top sustainable energy trainers to lead hands-on training on solar photovoltaic, micro hydro, wind energy, introduction to sustainability, and energy efficiency. Each boot camp provided information on the technology behind the science, interaction among participants, and information on the political events affecting the industry. To facilitate learning for participants with different levels of knowledge and skill sets, each boot camp had a mix of educators, students, and dislocated workers. The main conference, which included over 65 seminars and more than 90 speakers, focused on green jobs, economic development, environmental policy and education. Concurrent with the conference was an exhibition that included exhibitors from local and regional energy efficiency and renewable energy generation contractors who displayed various types of renewable technologies.

This year 168 boot camp scholarships were provided to students, educators and dislocated workers. Conference participation totaled over 500 and included the scholarship participants, general public, expo participants, and speakers. Participants in Energypath 2012 represented 26 schools of higher education and 19 different countries.

This year’s Keynote Dinner speaker was William Kamkwamba, a Malawian inventor and author of “The Boy Who Harnessed the Wind”. In 2002, he built a windmill in his home town using blue gum trees, bicycle parts, and materials collected in a local scrapyard. He has also built a solar-powered water pump that supplied the first drinking water in his village and two other windmills.

The Science Fair expanded to include both Middle School and High School students. Each team presented their poster board and research data. These projects were evaluated for creativity, scientific thought, clarity, and skill.

**Resource Locator/Interactive Website**

SEF researches and maintains a comprehensive catalog of resources designed to help Pennsylvanians locate grants, loans, and other sources of funding for renewable energy and energy efficiency projects. The information is provided online (www.energypath.com or www.thesef.org) and is available in hard copy for
those without internet access. The SEF’s other educational efforts actively seek to link participants to these resources.

**Educational Outreach**

SEF provides expert speakers to community organizations for participation in panel and conference breakout sessions. During 2012, over 1,643 educational hours were attributed to the SEF’s Educational Outreach/Speaker’s Bureau events, which included 15 Booth events, five Presentation events and two Panel events.

One of the Panel events was the Sustainable Energy for All Symposium on December 10, 2012 at the National Constitution Center in Philadelphia, PA. SEF and the United Nations Industrial Development Organization partnered together to present “The Challenges of Implementing Sustainable Energy for All at the Global and Local Levels”. The symposium addressed the challenges to scale up successful policies and best practices to achieve universal access to modern energy and to double the efforts of energy efficiency and renewable energy. The panel consisted of decision makers from the international, national and local levels. The panelists were interactive with the audience who consisted of UN ambassadors or their delegates, state political leaders, educators, businessmen and women, and other interested parties.

**Power Lunches**

SEF continued the Power Lunches, which are informal education sessions on renewable energy and energy efficiency topics. Power Lunches are an opportunity for those who are interested in sustainability and renewable energies to attend a luncheon seminar free of charge. Power Lunches are held monthly in the Allentown and Harrisburg areas. Seminar topics included: Introduction to Sustainability, Wind Energy, Alternative Energy Portfolio Standard Act, Biomass, Solar Photovoltaic and Energy Policy. During 2012, over 317 educational hours were attributed to 14 Power Lunches.

**Regulatory Monitoring**

SEF engages in sustainable energy awareness efforts, provides sustainable energy education, and intervenes in regulatory proceedings that impact energy conservation, energy efficiency, or renewable energy. SEF continues to represent ratepayers’ interests in sustainable energy proceedings before the PUC.
PROGRAM RELATED INVESTMENTS

SEF’s financial programs seek to aid energy users in overcoming financial barriers through a variety of self-sustaining financial tools that include loans, leases, equity investments and instant rebates. Each investment must establish mission fit and meet minimum financial requirements. Programs include Loans/Leases, Instant Rebates, and Energy Service Provider Network.

Loans/Leases

Over the past year, SEF committed to fund five projects totaling $2,431,505. Funding of $6,415,000 was provided on projects committed in 2011 and 2012. Information on these 2012 committed projects is listed below:

**JAS Automotive:** located in Coatesville, PA, is a full service automotive dealership selling and servicing new and used cars. SEF committed a $66,505, five-year term loan on 1/5/2012 to replace existing light fixtures with new energy efficient LED lights at the car dealership. Annual energy savings for the lighting system upgrade are estimated at 96,141 kWhs for a 63% reduction in energy consumption. Estimated annual cost savings are $12,383 per year. The customer decided, however, to go with an alternative funding method. As a result, there were no disbursements on the loan.

**Radio Road Associates:** located in Little Egg Harbor, NJ, is a special purpose entity with the specific purpose of managing the solar array and providing clean electrical power to St. Theresa’s Roman Catholic Church. SEF committed a $365,000, five and a half year term loan on 5/9/2012. The loan proceeds were used to support the design and installation of a grid-tied, code-compliant, ground-mounted 100 kW solar PV electrical system. Total project cost was $424,830 and will generate approximately 124,982 kWhs of AC electrical production per year, which will be sold to the church at a reduced rate of $.06 per kWh.

**AFC First Financial Corp:** located in Allentown, PA, is a financial institution that provides funding for residential energy efficiency projects. SEF committed a $250,000, one-year revolving line of credit on 2/10/2011, which was extended to $750,000 on 5/6/2011 and to $1,000,000 on 5/21/2012. The loan proceeds are used to fund projects completed under the Keystone Help Program through AFC First Financial. SEF disbursed on the loan eight times in 2012 for a total amount of $3,700,000 and was able to assist the residential market in the reduction of 906,888 kWhs.

**AFC First Financial Corp.** SEF committed a 90-day revolving line of credit on 9/6/2012 in the amount of $750,000. The loan proceeds were used to expand their energy efficiency programs, including the Keystone Help Program. Since the establishment of the loan, AFC First Financial has rolled the loan over three times in 2012 for a total amount of $1,350,000 and has been able to assist the residential market in the reduction of 526,026 kWhs.

**Keystone Solar, LLC:** located in North East Drumore Twp., PA, is a special purpose entity with the specific purpose of managing the solar array and providing clean electrical power. SEF committed a $1,750,000, 12-month term loan on 12/20/2011, which was extended to a $2,750,000, seven-month term loan on
5/29/2012. The loan proceeds were used to support the design and installation of a grid-tied, code-compliant, ground-mounted six MW solar PV electrical system. Total project cost was $23,345,000 and will generate approximately 7,954,000 kWs of AC electrical production per year.

**Instant Rebate Program**

In 2012, SEF entered into an agreement with AllFacilities Energy Group to process energy efficiency rebates for customers. The program allows the customer to receive the rebate up front to assist them in completion of a project. AllFacilities Group processes the rebate paperwork for the end user and requests the funds from SEF. The end user, in turn, assigns the rebate check from the utility company to SEF. In 2012, SEF and AllFacilities Group processed 23 rebates for a total of $649,587 for a reduction of over 9,084,933 kWs.

**ENERGY EFFICIENCY LOANS AND INSTANT REBATE PROGRAM**

**ENERGY ANALYSIS FOR YEAR ENDING DECEMBER 31, 2012**

<table>
<thead>
<tr>
<th>Project</th>
<th>Committed Funds</th>
<th>Kilowatt-hours generated per year</th>
<th>Kilowatt-hours saved per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAS Automotive</td>
<td>$66,505</td>
<td></td>
<td>96,141</td>
</tr>
<tr>
<td>Radio Road Assoc.</td>
<td>$365,000</td>
<td>124,982</td>
<td></td>
</tr>
<tr>
<td>AFC First</td>
<td>$250,000</td>
<td></td>
<td>906,888</td>
</tr>
<tr>
<td>AFC First</td>
<td>$750,000</td>
<td></td>
<td>526,026</td>
</tr>
<tr>
<td>Keystone Solar</td>
<td>$1,000,000</td>
<td>7,954,000</td>
<td></td>
</tr>
<tr>
<td>Instant Rebate</td>
<td>$649,587</td>
<td></td>
<td>9,084,933</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,081,092</strong></td>
<td><strong>8,078,982</strong></td>
<td><strong>10,613,988</strong></td>
</tr>
</tbody>
</table>

**Energy Service Provider Network**

In order to locate and develop projects, SEF has created a network of service providers who work in the renewable energy/energy efficiency field. Communication via the network allows SEF to develop financial tools and products to assist the project owner in meeting funding needs. During 2012, over 280 educational hours were provided to members of the Energy Service Provide Network via a two day mini conference.

**GREEN CONNEXIONS**

Green Connexions, Inc. is a for-profit C corporation owned by SEF. The mission of Green Connexions is to provide products and services through renewable energy and energy efficiency ventures. Profits from Green Connexions are used in support of SEF to help sustain its mission. In 2012, Green Connexions maintained a solar thermal leasing program.
BOARD ACTIVITIES

At SEF’s 2012 Annual Meeting in October of 2012, Mr. Andrew Stein was reappointed as SEF’s Chairman of the Board, G. Scott Paterno was appointed as Secretary/Treasurer, and Ms. Pam Polacek was reappointed as Vice Chairman. In April 2012, Fr. John Ryan resigned his position on the SEF Board. His seat remained vacant through the end of the calendar year.

The Board reviews governance, policy, and structure. There are three standing committees: Finance, Human Resources, and Program Related Investments. The Finance Committee also functions as the Board Audit Committee and the Board Investment Committee. During 2012, the Board had four quarterly meetings plus five conference calls and one meeting to interview prospective Board Directors. As of December 31, 2012, the SEF Board of Directors consisted of:

- Andrew Stein, Chairman
- Pamela Polacek, Vice Chairman
- G. Scott Paterno, Secretary/Treasurer
- Alan Roman, Director
- Daniel Griffiths, Director
- Kenneth Mickens, Director

FINANCIAL REPORT

As of December 31, 2006, SEF no longer receives funding from the PPL ratepayers. SEF is funded via program-related investments and an endowment fund.

For the year ending December 31, 2012, SEF’s internal financial statements showed total income of $894,844 and total expense of $1,111,562. Unrealized Gains/Losses were $543,761 for a net income of $327,043. The Balance Sheet reports assets at $21,333,332 and liabilities at $130,355. Included in assets are program related investments of $6,726,534. Audited financial statements for the year ending June 30, 2012 are available upon request by contacting Sally Kratz, Accountant, Sustainable Energy Fund, 1005 Brookside Road Suite 210, Allentown, PA 18106.
INTRODUCTION

In 2012, the West Penn Power Sustainable Energy Fund (WPPSEF) entered its tenth 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.

The WPPSEF activities continued to increase from previous years as its programs and initiatives became more visible within the West Penn Power (WPP) service region and across the Commonwealth.

HIGHLIGHTS AND ACCOMPLISHMENTS

During 2012, WPPSEF committed and/or placed $5,708,541 to co-fund 19 funding requests. Key accomplishments in 2012 include:

Investing in clean energy

The WPPSEF committed and placed $2,000,000 to support the commercialization of Aquion Energy aqueous hybrid ion (AHI) battery technology. Aquion Energy, as part of its commercialization process, is expanding its manufacturing facilities into the former Sony plant south of New Stanton, PA. The WPPSEF and the Economic Growth Connection of Westmoreland worked closely with the Westmoreland County Industrial Development, the Regional Industrial Development Corporation in Pittsburgh, and the Commonwealth of Pennsylvania to structure its $2,000,000 loan. In addition, WPPSEF committed $1,500,000 to the final construction stage of EnergyWorks Gettysburg Energy & Nutrient Recovery Facility located near New Oxford, PA. This facility will utilize locally produced chicken litter from Hillandale Farms as its fuel source. The plant will utilize gasification to produce three-four MW of electricity.

Investing in energy efficiency

The WPPSEF continues to support the Keystone Home Energy Loan Program (Keystone HELP) by committing $250,000 in bridge financing to AFC First Financial. WPPSEF monies will be used during a nominal 30-60 day time period between the time that contractors are paid for their home energy efficiency improvements and the time of the loan sales to the PA Treasury Department. The financing was approved in mid-December of 2011. The revolving bridge loan provided $1,250,000 to AFC First Financial in 2012.
WPPSEF also provided investment financing to World Kitchen, a Pyrex manufacturing facility located in Charleroi, to upgrade their air compressor system. This investment was seeded by providing co-funding to PennTAP in 2010 to perform an industrial-grade energy audit as part of their DOE-funded SAVE ENERGY NOW program. The air compressor upgrade was identified in the energy audit findings. WPPSEF provided a $500,000 loan to World Kitchen so that the upgrades could be implemented in an expedited manner.

Investing in education and public outreach

WPPSEF continues to provide support to raise the level of awareness of sustainable energy technologies. WPPSEF has specifically provided funding to local regions within the West Penn Power service region to host community-driven sustainable energy events/fairs.

FINANCIAL APPROVALS

A summary of WPPSEF loan financing activity is provided in the following table. A total of four loans were committed and/or placed in 2012.

<table>
<thead>
<tr>
<th>Business</th>
<th>Amount</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquion Energy</td>
<td>$2,000,000</td>
<td>Committed and Placed. Supports Aquion Energy aqueous hybrid ion battery development and expanded manufacturing facilities in Westmoreland Co., PA.</td>
</tr>
<tr>
<td>World Kitchen</td>
<td>$500,000</td>
<td>Committed and Placed. Support World Kitchen efforts upgrade air compressor systems at their manufacturing plant in Charleroi, PA.</td>
</tr>
<tr>
<td>Gettysburg Energy and Nutrient Recovery Facility</td>
<td>$1,500,000</td>
<td>Committed in December 2012. Support EnergyWorks and Hillandale Farms efforts to construct a nominal 3 MW gasifier which utilizes locally produced egg layer chicken litter and provides electricity to Hillandale Farms. Loan documents in processing.</td>
</tr>
<tr>
<td>AFC First Financial</td>
<td>$1,250,000</td>
<td>Committed $250,000 line of credit in December 2011, placed throughout 2012. Provides bridge funding in anticipation of several rollovers in 2012, WPPSEF disbursed a total $1,250,000 throughout 2012.</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$5,250,000</strong></td>
<td></td>
</tr>
</tbody>
</table>

A summary of WPPSEF grant making activity is provided in Table 2. A total of 15 grants were committed and/or placed in 2012.
<table>
<thead>
<tr>
<th>Business</th>
<th>Amount</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA Biomass Energy Association</td>
<td>$202,000</td>
<td>Committed and Partially Placed. Supports to development, administrative, and educational activities of PBEA.</td>
</tr>
<tr>
<td>Phipps Conservatory</td>
<td>$150,000</td>
<td>Committed and Partially Placed. Co-funding to support the construction of a 24,000 ft² Living Building (exceeds LEED Platinum Standards)</td>
</tr>
<tr>
<td>Slippery Rock University</td>
<td>$15,000</td>
<td>Committed. Provided co-funding to install energy dashboards in student dormitories</td>
</tr>
<tr>
<td>Pennsylvania Environmental Council</td>
<td>$25,000</td>
<td>Committed and Partially Placed. Co-funding for RiverTown small business energy efficiency program</td>
</tr>
<tr>
<td>Allegheny County Sustainability Program</td>
<td>$12,480</td>
<td>Committed and Placed. Provide co-funding to the Allegheny Green &amp; Innovation Festival</td>
</tr>
<tr>
<td>Penns Valley Conservation Association</td>
<td>$470</td>
<td>Committed. Co-funding for renewable energy workshop at 2012 PA Organic Farm Festival</td>
</tr>
<tr>
<td>Penns Valley Conservation Association</td>
<td>$2,930</td>
<td>Committed. Co-funding for a 2013 renewable energy fair in Centre Hall, PA.</td>
</tr>
<tr>
<td>City of Connellsville</td>
<td>$5,000</td>
<td>Committed and Placed. Co-funding for 2012 Connellsville Community Energy Event</td>
</tr>
<tr>
<td>Alternative Fuels Renewable Energies Council (AFREC)</td>
<td>$1,900</td>
<td>Committed and Placed. Provide general membership support to AFREC for 2012 and 2013.</td>
</tr>
<tr>
<td>American Council for an Energy Efficient Economy (ACEEE)</td>
<td>$1,000</td>
<td>Committed. Provide general membership support to ACEEE for 2013.</td>
</tr>
<tr>
<td>Biomass Thermal Energy Council (BTEC)</td>
<td>$300</td>
<td>Committed. Provide general membership support to BTEC for 2013.</td>
</tr>
<tr>
<td>American Biogas Council (ABC)</td>
<td>$600</td>
<td>Committed. Provide general membership support to ABC for 2013.</td>
</tr>
</tbody>
</table>

**Total** | **$458,541**
WPP SEF ADMINISTRATION

The WPPSEF administration consists of a seven-member board of directors that provides oversight to the Fund and an administrative staff that oversees the day-to-day operations. Individual board members are selected by the Fund through a search and external nomination process. The WPPSEF Board reviews all applicants and then submits their recommendation to the PUC for final approval. All of the board members serve on a volunteer basis.

The WPPSEF Board of Directors as of December 31, 2012, was:

- John Walliser, President
  - Pennsylvania Environmental Council
- Gwen Auman, Vice President
  - Auman Weis Enterprises
- Jim Stark, Secretary
  - Fayette County Community Action Agency
- Pat O’Brien, Treasurer
  - First Federal Bank of Monessen
- Rob Hosken,
  - Building Performance Architecture
- Michele Ponchione
  - World Kitchen
- Ed Miller
  - West Penn Power

The WPPSEF Board of Directors selected The Pennsylvania State University Energy Institute to serve as the Fund’s administrator and the Economic Growth Connection of Westmoreland to provide financial services to the Fund. In addition, the Fund utilizes the services of external consulting firms on an as-needed basis. The WPPSEF staff as of December 31, 2012, was:

- Joel Morrison and Barbara Robuck
  - The Pennsylvania State University (The EMS Energy Institute)
- John Skiavo, James Smith, Donna Bates, and Carolyn Berkey
  - Economic Growth Connection of Westmoreland

WPP SEF Board Meetings

The WPPSEF schedules its board meetings at the beginning of each calendar year. Full board meetings are scheduled for every two months. In addition, the WPPSEF Board has developed three ad-hoc working groups (administrative, investment, and grant-making) that meet on an as-needed basis.
In 2012, the WPPSEF Board of Directors met on:

- February 16 (Pittsburgh, PA)
- April 26 (Greensburg, PA)
- June 14 (Extended Conference Call)
- August 11 (Greensburg, PA)
- October 2-3 (Saint Mary’s, PA)
- December 13 (Charleroi, PA)

**Planned Activities**

The WPPSEF will be developing and releasing a request-for-proposal (RFP) for sustainable energy financing in 2013. The WPPSEF RFP focus areas are under development.