

TRF Sustainable Development Fund: Incentive Financing for PA Clean Energy Market Development

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TRF Sustainable Development Fund





The Reinvestment Fund



Capital at the point of impact.

www.trfund.com

- Recognized as one of the leading Community Development Financial Institutions in the US - \$500 million in capital now under management from 850 investors
- Headquarters in Philadelphia - offices in Baltimore and Washington, DC
- Geographical reach throughout Pennsylvania, New Jersey, Delaware and Maryland
- Active portfolios in housing, community facilities, small business, commercial real estate, venture financing and energy

www.trfund.com/sdf

- NESIP – \$4.5 million energy revolving loan fund to finance energy efficiency measures for non-profit organizations
 - Seeded with \$2.25MM from Pew Charitable Trusts
 - Managed by TRF since 1993
- SDF – \$32 million of funding to promote renewable energy market development and energy efficiency
 - Funded from electric utility restructuring and merger cases
 - Managed by TRF since 1998

- To support the commercialization and use of renewable energy and advanced clean energy technologies
- To support energy conservation and energy efficiency
- To support sustainable energy businesses





SDF's Financial Tools

- Commercial loans
- Energy performance lease financing
- TRF-branded leasing product
- Near-equity investments (subordinated debt, royalty financing)
- Equity investments (PAIT Fund)
- Performance-based grants





SDF Funding

SDF Core Fund	\$13.5 million
New PA Wind	\$12 million
PA Photovoltaics *	\$4 million
Renewable Energy Educ.	<u>\$2.5 million</u>
TOTAL	\$32 million

* An additional \$700,000 in PV support was awarded to SDF by PEDDA in 2006, expanding the total PV program budget to \$4.7 million.



SDF Funding Approvals through 09/30/08

TYPE	#	SDF APPROVALS	TOTAL PROJECT
Loans and investments	40	\$20,951,495	\$126,715,607
Core grants	86	\$1,762,550	\$98,306,292
Wind grants	9	\$14,018,441	\$369,916,500
Solar PV grants	253	\$4,276,129	\$8,453,665
Public education grants	42	\$2,427,659	\$4,369,378
TOTALS:	430	\$43,436,274	\$607,761,442



2008 SDF Lending Activity

(in thousands)

	2008 Approved	2008 Closed
Antonia Pantoja Charter School		1,000
Boyer's Food Markets, Inc.		500
New Life Affordable Housing	300	300
1260 HDC - Ditman	940	940
1260 HDC - Keystone	825	825
Fresh Grocer - La Salle	1,000	
Totals:	3,065	3,565

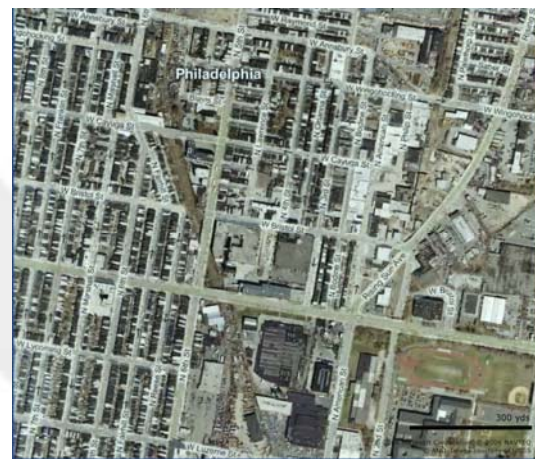
Housing - 1260 HDC - Ditman

- Substantial rehab to 34 accessible apartment units for formerly homeless & physically / mentally disabled residents
- Thermal insulation, Energy STAR windows, doors, appliances, HVAC and lighting



Community Facilities – Aspira Charter School

- Development of a North Phila. charter school serving 700 K-8 students
- Energy STAR air conditioning, lighting, windows, doors, roof



Fresh Food Financing

- One dollar in energy savings equals same benefit to the store's bottom line as \$80 in increased sales
- Most supermarkets can reduce energy costs by 40% through cost-effective energy measures
- Through the Fresh Food Financing Initiative, SDF helps supermarkets select, finance high efficiency lighting, refrigeration equipment and other energy measures





SDF EPC Lease Financing

- Energy efficiency measures are designed, installed by an energy services company (ESCO) under an **Energy Performance Contract (EPC)**
- SDF provides flexible, long term, low-interest financing to the project, leveraged with bank financing
- Benefits: no capital budget approval required, lower operating expenses, does not affect existing loan/bonding covenants of end user
- An important way to finance energy efficiency measures (e.g. lighting, HVAC) and DG systems (e.g. PV, CHP, fuel cells, etc.)
- Monthly energy savings can be used to lease/purchase PV equipment, buy wind power



Pre-Development Loans

- 0% short-term, full-recourse loans for clean energy pre-development costs for green building projects.
- TRF/SDF reserves right of first refusal re: follow-on financing at commercially competitive terms
- Pre-development loan includes partial forgiveness provision if project does not go forward.





PA Advanced Industrial Technology Fund

- SDF created PA-AIT in 2002 with Blue Hill Partners, a private equity fund
- PA-AIT is a new venture incubator fund that invests in early-stage renewable and clean energy companies
- PA-AIT portfolio companies:
 - *Princeton Energy Systems*
 - *Encelium Technologies*
 - *Connected Energy Corp*

- \$12 million in wind production incentives for 7 new Pennsylvania wind farms totaling 257 MW
 - Leveraged \$324 million of private investment
 - 4 utilities buying PA wind power
- Syndicated subordinated debt for a 9 MW wind farm
- Financed the equity pay-in for 24 MW wind farm (Babcock & Brown model)





Pennsylvania Wind Farms

	MW	Estimated MWH/yr	Estimated # of Homes	Estimated Total Cost
Pre-SDF				
Garrett	10.4	21,865	2,733	\$12,480,000
SDF - operating				
Mill Run	15.0	38,938	4,867	\$18,000,000
Somerset	9.0	20,404	2,551	\$10,800,000
Waymart	64.5	150,445	18,806	\$77,400,000
Meyersdale	30.0	81,243	10,155	\$36,000,000
Bear Creek	24.0	71,173	8,897	\$33,600,000
Allegheny Ridge	80.0	217,248	27,156	\$112,000,000
Casselman	34.5	99,733	12,467	\$48,300,000
Non-SDF				
Locust Ridge	26.0	75,161	9,395	\$36,400,000
TOTAL - SDF projects	257.0	679,183	84,898	\$336,100,000
TOTAL - all PA projects	293.4	776,209	97,026	\$384,980,000



Declining Subsidy of SDF Wind Grants

	SDF Grant	MW	MWH/yr	SDF Grant in \$/MW	SDF Grant in \$/MWH/yr
Mill Run/Somerset	\$2,000,000	24.0	59,342	\$83,333	\$0.0337
Waymart	\$3,250,000	64.5	150,445	\$50,388	\$0.0216
Meyersdale	\$2,500,000	30.0	81,243	\$83,333	\$0.0308
Bear Creek	\$2,000,000	24.0	71,173	\$83,333	\$0.0281
Casselman	\$1,000,000	34.5	99,733	\$28,986	\$0.0100
Allegheny Ridge	\$750,000	80.0	217,248	\$9,375	\$0.0035

Leveraged Babcock & Brown model

- Co-developers: Community Energy, Inc. and Babcock & Brown
- 24 MW (12 Gamesa 2 MW turbines)
- 20-year PPA with PPL Energy
- 2 classes of equity: tax-advantaged and non-tax advantaged
- SDF syndicated \$5.75 MM in debt to leverage the pay-in of one of the equity participants



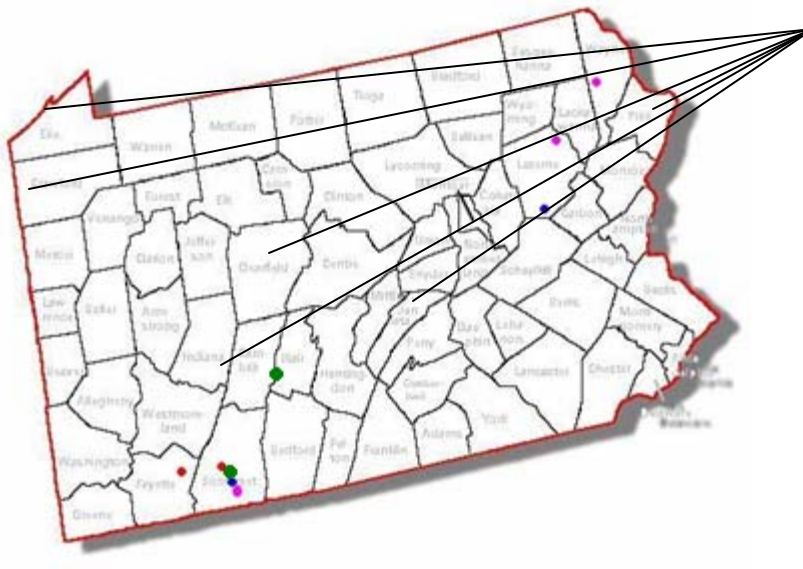


- Hazelton
 - Size: 600 kW
 - Turbine: Vestas V42
 - On-line: mid-2009



Community wind:

- Sized between 500 kW and 2 MW
- Significant local ownership



- PA Department of Conservation and Natural Resources

- Size: six 10 kW turbines at six state parks
- Turbine: Bergey 10 kW
- Now on-line



Presque Isle
 Prince Gallitzin
 Promised Land
 Pymatuning
 Tuscarora
 Yellow Creek



SDF's Solar PV Grants

- \$4 million, supplemented by \$700k from PEDDA
- Budget fully committed – program closed in 2006
- SDF is registering SRECs on GATS and selling them, splitting proceeds between system owners and SDF
- SDF program a model for DEP's \$100 million solar PV program





PA Clean Energy Communities Campaign

- A public education campaign managed for SDF by SmartPower
- 3 elements of a Clean Energy Community:
 - Local government commitment to purchase 20% of their electricity from clean sources by 2010
 - % of local residents purchase clean energy
 - Local government actually purchasing clean energy
- 17 townships have made by the 20%-by-2010 commitment
- First 15 communities to become PA Clean Energy Communities will receive a 1 kW Solar PV system

Recapitalization

Looking to have SDF become a vehicle for deploying a portion of the public funding available under:

- the PA Alternative Energy Investment Act - \$650 million for solar, wind, geothermal, high-performance buildings, energy conservation and efficiency projects
- Act 129 – up to \$250 million a year in PA electric utility investment in energy efficiency and conservation



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