Sustainable Development Fund Solar Photovoltaics Grant Program

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THE REINVESTMENT FUND
Human Interest Compounded Daily

071503

Solar PV Grant Program Application Form

Directions: *This application form is to be completed by the Participating Contractor*

For Internal Office Use Only:

SDF PV Grant Customer # _____

Date Received: _____

A. PV System Owner / Location Information

PV System Location

Street Address _____

City _____, PA Zip _____ Municipality_____

PECO Energy Acct # _____-_____-_____-_____ (Interconnected with PV System)

Name on Acct: First name _____ Last name _____

PV System Owner

First name _____ Last name _____

Company name (if applicable) _____

Street Address_____

City _____ State _____ Zip _____

Telephone (___) _____ Email address _____

[ ] Social Security Number -or- [ ] Federal Tax ID Number _____

SDF PV Grant Customer #_____

PV System Contact at Location (if different than Owner)

First name _____ Last name _____

Company name (if applicable) _____

Street Address_____

City _____ State _____ Zip _____

Telephone (___) _____ Email address _____

B. CONTRACTOR / INSTALLER INFORMATION

SDF Participating Contractor # _____

First name _____ Last name _____

Company name _____

Company Street Address _____

City _____ State _____ Zip _____

Telephone (_____) _____ Fax number (_____) _____

Email address _____

[ ] Social Security Number -or- [ ] Federal Tax ID Number: _____

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C. System Description

Total PV Capacity (DC): _____ DC watts (@ STC)

Annual Derating Factor: _____ (suggest using 0.70; the derating factor accounts for estimated PV production under more realistic ambient conditions compared to the nominal rating @ STC; it also accounts for overall system losses)

Total PV Capacity (AC): _____ AC watts (= Total PV Capacity$_{DC}$ x Derating Factor)

PV Array Orientation (degrees): _____ (North = 0°, East = 90° , South = 180°, West = 270°)

PV Array Tilt (degrees): _____ (0° = Horizontal)

Average Annual Shading Impacts: _____ % (Results from Section D)

Adjusted Annual Solar Exposure: _____ % (Results from Section D)

Location of the PV Array: [ ] Roof [ ] Ground [ ] Other: _____

PV Modules	
Manufacturer	
Model	
Number of Modules	
Program Approved	[ ] Yes [ ] No [ ] n/a*
Warranty**	_____ years

www.consumerenergycenter.org/erprebate/eligible_pvmodules.html

Inverter	
Manufacturer	
Model	
Grid-Tied	[ ] Yes [ ] No
Battery Backup	[ ] Yes [ ] No
Program Approved	[ ] Yes [ ] No [ ] n/a*
Warranty**	_____ years

www.consumerenergycenter.org/erprebate/eligible_inverters.html

Packaged Pre-Engineered PV System (if applicable)	
Company	
Model	
Number of Modules	
Program Approved	[ ] Yes [ ] No
Warranty**	_____ years

http://fsec.ucf.edu/pvt/BuyInstallPV/pvapprovals/approvals1.htm

Batteries (if applicable)	
Manufacturer	
Model	
[ ] Flooded or [ ] Sealed	
Number of Batteries	
Total Battery Capacity (Ah)	
Warranty***	_____ years

* n/a if Packaged Pre-Engineered PV System is used

** Requirement is a 5 year Manufacturer's limited warranty

*** Warranty for batteries is not required

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D. Solar Audit and Estimated PV Generation Report

	A	B	C	D	E	F	G
	Estimated AC Generation (Unshaded) (kWh from PVWATTS)						
	Reference	At-Site					
Month	Tilt: 35° Azimuth: 180° (S)	Tilt: ° Azimuth: °	Solar PathFinder Results (% Unshaded)	Adjusted Solar Exposure (%)	Estimated AC Generation At-Site w/Shading (kWh)	Estimated Gross Consumption At-Site (kWh) (from PECO)	Estimated % Provided by PV
January							
February							
March							
April							
May							
June							
July							
August							
September							
October							
November							
December							
Monthly Avg.							
Annual Total							

A and B: Use PVWATTS to compute the PV generation at the site relative to actual PV array tilt and orientation compared to optimum tilt (35°) and orientation (180°); in PVWATTS, use Philadelphia weather (http://rredc.nrel.gov/solar/codes_algs/PVWATTS/version1/Pennsylvania/Philadelphia.html) and enter the Total PV Capacity (AC) from Section C: *System Description*

C: Enter the monthly shading results from the Solar PathFinder as determined from the site of the PV array
D: Adjusted Solar Exposure = B / A x C
E: AC Generation at-site = B x C
F: Gross electric consumption based on PECO Energy Bill (either estimate from bar chart or have customer call up PECO)
G: Estimated Percentage provided by PV = E / F

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E. ESTIMATE OF SUBSIDY AND ADJUSTED INSTALLED COST

Total PV Capacity: _____ DC watts (from Section C)

Estimated Gross Solar Electric Production: _____ kWh_{AC} / yr (from Section D, Column E's Annual Total)

Installation Subsidy to Contractor*		Internal
$4.00/watt x _____ DC watts (@ STC) =	$ ($20,000 maximum)	
Estimated Anniversary Subsidy to PV System Owner**		
$1.00/kWh x _____ kWh_{AC} (1st year production) =	$ ($5,000 maximum)	
Estimated Anniversary Subsidy to Contractor**		
$0.10/kWh x _____ kWh_{AC} (1st year production) =	$ ($ 250 maximum)	

* Installation subsidy only applies if Adjusted Annual Solar Exposure is 70% or greater
** Anniversary subsidies will be based on actual meter reading after the first 12 months of operation

Note on grant payment limitation: The combination of the first and second grant payments (i.e., buydown and production subsidies) will be limited to 80% of the total installed cost of the PV system.

PV System Total Estimated Costs

Equipment	
PV System (PV modules, inverter, controls, mounting structure, batteries, etc.)	$
Other (wiring, other hardware, utility disconnect, etc.)	$
Installation Labor	$
Other Fees	
Permit fees	$
Structural Analysis Fee	$
Warranty Extension	$
PECO's Reimbursement for 2nd Meter Install (- $400)	- $
Other:	$
TOTAL INSTALLED COST	**$**
Estimated Installation Subsidy	- $
INSTALLED COST TO SYSTEM OWNER	**$**
Estimated Anniversary Subsidy to System Owner	- $
EFFECTIVE SYSTEM COST TO SYSTEM OWNER	**$**

F. Declaration of Participating Contractor

I will be the installer of this PV system and I declare under penalty of perjury that the information provided in this application is true and correct to the best of my knowledge. I understand that I will receive this grant subsidy only if the PV system passes the post-installation inspection.

Contractor's signature _____ Date_____

Print name _____

G. Declaration of System Owner

I will be the owner of this PV system and I have reviewed this completed application, (particularly Section E - *Estimate of Subsidy and Adjusted Installed Cost*). I understand that I will receive this grant subsidy only if the PV system passes the post-installation inspection.

PV System Owner's signature _____ Date_____

Print name _____

H. Application Approval - For Internal Use Only

[ ] Yes [ ] No Proposed PV modules/inverter or PV system meets the program requirements

[ ] Yes [ ] No Solar audit report and estimated PV generation estimates are within reason

[ ] Yes [ ] No Adjusted Annual Solar Exposure is equal or greater than 70%

[ ] Yes [ ] No Initial subsidy estimates are reasonable and correctly computed from the information provided

Application Approved: _____ Date _____
Ron Celentano – Program Administrator

Date scheduled for installation inspection: _____