# **Department of Energy and Environment**

Clean and Affordable Energy Act of 2008 and Renewable Energy Portfolio Standard Act of 2004 Quarterly Report

April 1, 2018 – June 30, 2018

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#### **INTRODUCTION**

The Department of Energy and Environment's (DOEE) Clean and Affordable Energy Act and Renewable Energy Portfolio Standard Act Quarterly Report to the Council of the District of Columbia (Council) covers the period from April 1, 2018 – June 30, 2018.

This report: 1) describes significant program status; 2) provides timelines and milestones to track the progress and success of each program; 3) offers highlights of ward specific data; and 4) presents the status of administrative and programmatic expenditures.

#### BACKGROUND

The Clean and Affordable Energy Act of 2008 (CAEA), effective October 22, 2008 (D.C. Law 17-250; D.C. Official Code § 8-1773.01 *et seq.*), established the Sustainable Energy Trust Fund (SETF) and the Energy Assistance Trust Fund (EATF), which are funded by assessments on the natural gas and electric companies. The SETF finances the District of Columbia Sustainable Energy Utility (DCSEU), and the EATF provides annual support for the Low-Income Home Energy Assistance Program.

Additionally, the Renewable Energy Portfolio Standard Act of 2004 (REPS), effective April 12, 2005 (D.C. Law 15-340; D.C. Official Code § 34-1431 *et seq.*), established the Renewable Energy Development Fund (REDF), which is funded by compliance fees paid by electricity suppliers under the District's Renewable Energy Portfolio Standard for the purpose of funding eligible solar projects in the District.

Pursuant to sections 210(e) and 211(e) of the CAEA and section 8(f) of the REPS, DOEE is required to submit a quarterly report detailing EATF, SETF, and REDF expenditures and program performance.

### Sustainable Energy Trust Fund

The DCSEU submits quarterly reports to DOEE, and DOEE files these reports with the Council on behalf of the DCSEU. These reports include programs funded by the SETF. Both DOEE's and DCSEU's reports can be found on DOEE's website.

During the third quarter of FY18, DOEE modified DCSEU's contract to authorize DCSEU to design a Solar for All (SFA) program, to expand low-income households' access to solar power, and support the creation of new solar energy sources in the District. The SFA program will include a detailed program design, budget, and implementation and public awareness plan.

### **Energy Assistance Trust Fund**

#### Low-Income Home Energy Assistance Program Background

DOEE administers the Low Income Home Energy Assistance Program (LIHEAP), which assists low-income households in the District, particularly those with the lowest incomes that pay a high proportion of household income for home energy, primarily in meeting their immediate home heating and cooling needs. LIHEAP benefits are provided for households using electric, natural gas, or home heating oil. DOEE provides energy assistance benefit payments to income qualified households by providing a direct credit, on behalf of the customer, to the respective utility company that provides service to the household.

LIHEAP is funded by three sources – US Department of Health and Human Services (US HHS), District General Funds, and the Energy Assistance Trust Fund (EATF), a special purpose revenue fund. DOEE applies for an annual formula grant from US HHS through a State Plan, which is submitted by September 1 each year.

Energy assistance benefits are determined through a benefit matrix that is approved by the US HHS. DOEE provides two types of benefits: Regular energy assistance benefits and emergency energy assistance benefits. The regular benefit is a one-time benefit the household may receive each year, and is calculated based on four factors: household size, total household income,

heating source, and type of dwelling. Regular energy assistance benefits range from \$250 to \$1,500 and the average benefit payment per household is \$500-\$600. The emergency benefit is available to low-income District residents who have received a disconnection notice for electric or gas service, or are already disconnected. Households that are out of home heating oil are also eligible to receive an emergency benefit.

#### **Program Accomplishments**

The total number of LIHEAP benefits provided to District households this quarter from all funding sources, including EATF, was 3,954.

Milestone	Goal Date	Actual Date
Quarter 3: April 1, 2018 – June 30, 2018		
Serve additional eligible District households	June 2018	June 2018

#### Next Quarter's Projected Goals

Table 2: LIHEAP Benefit Payments Quarter 4 Timeline and Milestones

Milestone	Goal Date	Actual Date		
Quarter 4: July 1, 2018 – September 30, 2018				
Serve additional eligible District households	September 2018			

## **Renewable Energy Development Fund**

#### Background

The intent of the Solar for All Program of the REPS Act is to expand the District's solar capacity, increase the amount of solar generated within the District, and provide the benefits of locally-generated solar energy to low-income households, small businesses, nonprofits, and seniors. Solar for All's specific targets are to provide the benefits of solar energy to 100,000 low-income households (defined as households at or below 80% of Area Median Income) and to reduce their energy bills by 50% (based on the residential rate class average usage for 2016) by 2032.

DOEE is implementing Solar for All in five three-year phases to ensure the program is sufficiently flexible to adapt to market changes and overcome barriers. The initial implementation phase (FY 2017-2019) aims to develop 30 to 60 MW of solar capacity, subject to funding availability. This phase focuses on researching and developing solutions necessary to complete large-scale projects in subsequent implementation phases. This phase intends to achieve these goals through Solar for All Innovation and Expansion Grants, and strategic external and interagency partnerships.

DOEE awarded nine innovation and expansion grant proposals chosen based on the applicants' ability to meet the baseline eligibility criteria, clear plans for addressing core barriers, and the innovation demonstrated by their proposals. Grantees represent both nonprofit and for-profit entities, and the grantees are also engaging many District-based businesses as teaming partners. Table 3 provides the goals and details of the awarded grants.

Grantee	Project Description
Community Power Network (CPN) - DC SUN is a project of Community Power Network	This grant funds CPN's Low-Income Solar Co-op Program, which will bring low-income residents together in a group or solar co-op, to provide more affordable bulk procurement of solar installations. CPN will pay for the full installation of panels on the homes of low-income residents. Low-income homeowners will receive all the associated financial benefits of solar, at no cost. CPN plans to install 750 kW, serving at least 215 households.
Groundswell, Inc.	This grant funds Groundswell's installation of solar panels on six houses of worship in Wards 4, 7, and 8, which will result in free, 20-year community solar subscriptions for low-income households. Groundswell will provide local employment and apprenticeship opportunities, and solar jobs skills training. Groundswell plans to install 366 kW, serving up to 122 households.
New Partners	This grant funds New Partners Community Solar Corp.'s installation of solar
Community Solar	panels on 15-25 commercial, nonprofit, and apartment rooftops, resulting in
Corp. (formed by	free, 25-year community solar subscriptions for low-income households. New
Nixon Peabody LLP)	Partners Community Solar Corp. plans to install 1 MW, serving at least 325
	households.
Urban Energy	This grant funds Urban Energy Advisors' installation of solar energy systems
Advisors (DBA Urban	on affordable, multifamily buildings. Urban Energy Advisors plans to install
Ingenuity) in	1 MW, serving up to 402 households.

Table 3: Solar for All Innovation and Expansion Grants

Grantee	Project Description
partnership with NHT	
Enterprise	
PEER Consultants,	This grant funds PEER Consultants, P.C.'s installation of solar panels on
P.C.	affordable, multifamily buildings, resulting in 15-years of free solar energy
	benefits for low-income households. The grantee will also educate building
	owners on how their rooftops could be used for solar generation and other
	environmental measures, including stormwater retention and methods for
	reducing urban heat island effect. PEER Consultants, P.C. plans to install 500
	kW, serving 100 low-income households.
Neighborhood Solar	This grant funds Neighborhood Solar Equity, LLC's installation of solar
Equity, LLC	energy systems on several buildings at a local university. Electricity will be
(collaboration	provided to the university. SREC revenue from the project will benefit low-
between Community	income residents for 15 years. Neighborhood Solar Equity, LLC plans to
Renewable Energy,	install 595 kW, serving up to 100 households.
Root + Branch, and	
Kelly Electric)	
Open Market ESCO	This grant funds Open Market ESCO LLC's installation of solar panels on 4
LLC (the energy	roofs of Atlantic Terrace, a 195-unit affordable multifamily property in Ward
services division of	8, providing free, 15-year community solar subscriptions for low-income
WinnCompanies)	District residents. The grantee will also provide education to low-income
	residents regarding the benefits of solar. Open Market ESCO LLC installed
	548 kW, serving at least 150 income-qualified households.
Ethos Strategic	This grant funds Ethos Strategic Consulting, LLC's installation of solar
Consulting, LLC	canopies over surface parking lots at several affordable housing properties.
	The benefits from the electricity generated in this community solar project
	will be provided in the form of direct payments to the low-income residents
	of the adjacent properties for 25 years. Ethos Strategic Consulting, LLC plans
Community	to install 1 MW, serving up to 350 households.
Community Preservation and	This grant funds CPDC's installation of solar panels on the rooftops of 14 multifemily properties eyend by CPDC. The proceeds from the electricity
	multifamily properties owned by CPDC. The proceeds from the electricity
Development	generated will reduce operating costs for CPDC. CPDC will use these cost
<b>Corporation (CPDC)</b>	savings to invest building upgrades, new amenities, and resident services that
	benefit the residents of these properties. CPDC plans to install 1 MW, serving 2,800 low income households
	2,800 low-income households.

In addition to these nine grants, DOEE has fostered partnerships for several projects as shown in Table 4. These projects provide opportunities for DOEE to support to existing efforts with private entities and other District agencies through funding training, and providing technical assistance.

Partnership	Project Description
Community Solar Pilot	Gap financing to assist with the development and operation of
	community solar arrays on three properties owned and managed by
	Brookfield Office Properties, located in downtown DC, serving 100
	households with 181kW.
Vulnerability	To develop a tool to assess the vulnerability of the District's
Assessment and	affordable housing stock to the impacts of climate change and to
<b>Resilience Audit and</b>	identify opportunities to improve resilience, reduce energy use,
Solar Tool for	install solar, and install battery storage systems.
Affordable Housing	
Low-Income Energy	A demonstration project at Garfield Terrace (a DC Housing
Efficiency and Solar-	Authority property) to pair energy efficiency measures with solar,
Ready Roof	through the federal Weatherization Assistance Program
Demonstration	
DC Sustainable Energy	The DCSEU planned to install at least 1 MW of solar in FY 2017
Utility (DCSEU)	across the commercial, government, and institutional sectors. In FY
	2018, DOEE will hire an independent third party contractor to verify
	and determine the DCSEU's achievement with respect to the
	solar/renewable energy performance benchmark in the DCSEU
	contract.
Solar Works DC	A low-income solar installation and job training program. Solar
(SWDC)	Works DC will reduce energy costs for qualified low-income
	District homeowners by installing solar systems on their homes. The
	program will train more than 200 District residents and will install
	solar systems on up to 300 income-qualified homes
Department of General	2.6 MW community solar installation in Ward 8 to serve low-
Service (DGS)	income households, and a pilot project to test different energy
	storage solutions and to procure and install solar, coupled with
DC Public Library	energy storage. DOEE is partnering with DC Public Library for the procurement and
(DCPL)	installation of a 50 kW solar system, coupled with an energy storage
	system, at a newly constructed DC Public Library
Department of Housing	To deliver technical assistance to recent Housing Production Trust
and Community	Fund recipients, affordable housing developers seeking gap-
Development (DHCD)	financing.
DC Housing Authority	To support roof repair, replacement, solar installation and battery
(DCHA)	storage installation at DCHA's housing properties
University of the District	To identify rooftops for solar installation and provide technical
of Columbia (UDC)	assistance
	1

Table 4: Solar for All External and Interagency Partnerships

#### **Program Accomplishments**

DOEE completed the first Solar and Weatherization Collaboration project with DCHA at the Garfield Terrace Public Housing Senior Building. The two year project resulted in \$2.4 million

in upgrades including a roof replacement, energy and water conservation measures, and a 130 kW Solar PV System which will serve 203 seniors and disabled residents.

The DC Housing Authority is in the construction phase with Parkway Overlook, having received approval by Pepco to install in May. Upon completion of the installations, DCHA estimates the total capacity funded by the grant will be 1.8MW, providing benefits to 1,389 households. DCHA's plans for resident engagement are in development with an anticipated reach to more than 5,000 residents at over 4,300 units, across 30 properties.

The Solar Works DC spring cohort ran for twelve weeks, from March 6 to May 25, and graduated 22 trainees. Seventeen installs were completed for low-income qualified residents for a total of 64.71Kw added capacity in the District and homeowners are anticipated to see an average annual savings of \$630.89. Eleven job offers were extended to trainees and nine were accepted. The program moved into the DC Infrastructure Academy in early March 2018 and was the inaugural training program for the Academy. Solar Works is currently active in its summer session utilizing the Marion Barry Summer Youth Employment Program (MBSYEP) participants, ages 18-24, and is also busy recruiting for the fall session, which is slated to start on September 11. In addition, the program continues to participate in the Pepco smart meter pilot with ConnectDER at no-cost to the homeowner or the District.

Open Market ESCO installed and interconnected 651 kW of solar on Winn Companies' Atlantic Terrace property in December 2017. The energy produced by 548 kW of this installation will be provided to income-qualified households in the District through no-cost community solar subscriptions. By the end of Q3 FY 2018, Open Market ESCO had signed up over 50 income-eligible households to receive community solar credits on their electric bills and the grantee is currently recruiting additional households for the remaining, available community solar subscriptions.

Community Power Network, dba Solar United Neighbors of D.C, anticipates completing their first solar installations under Solar for All in September, 2018. These income-qualified single family homeowners will receive a no cost solar installation that will reduce their electric bills in half. These homeowners will own the solar installation from day one.

The remaining Solar for All innovation and expansion grantees are securing site access commitments, initiating permit application submissions, and completing part 1 of the interconnection process with Pepco.

#### **Challenges and Solutions**

The Solar for All Innovation and Expansion grants and partnerships continue to build relationships, identify barriers, and propose solutions in order to meet project implementation goals. As challenges are identified, DOEE is working closely with stakeholders to facilitate solutions wherever possible.

Site access continues to present a challenge and has caused some delay in solar system installations. Securing commitments from building owners is important to meeting the goals of the REPS Act in order to ensure the benefits continue to accrue for the lifetime of the grant agreement. Grantees are required to secure site access for at least a 15 year period.

DCHA has identified the potential for equipment lead time delays as a potential schedule and budget risk. Over the last quarter, DCHA learned of a number of roof issues at properties considered during their site selection deliberation for solar installations. However, DCHA has finalized its audit and intends to move forward with solar installations at nine site locations.

DOEE is working with grantees and partners to identify innovative methods to provide benefits to low-income households equivalent to a 50% reduction in energy bills where directly applying benefits on energy bills is not practical. DOEE is developing criteria to ensure these benefits are fully realized and in agreement with the goals of Solar for All.

DOEE issued guidelines for income verification allowing grantees to utilize categorical eligibility, i.e., applicants eligible for LIHEAP are deemed eligible for Solar for All. Grantees and DOEE are working to improve notification procedures for applicants found eligible.

Solar Works DC provided its progress report on the 2018 spring cohort in June identifying 3 areas of challenges: 1) ongoing confusion about the payment system which is managed by the Department of Employment Services; 2) providing certain wraparound services to address individual trainee needs to aide in retention and completion of the program; and 3) unexpected

factors impacting GRID's single-family pipeline and installs, specifically due to the shortage in supplies and materials as a result of a main manufacturer filing bankruptcy.