



OFFICE OF THE  
SECRETARY

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MURIEL BOWSER  
MAYOR

SEP 30 2016

The Honorable Phil Mendelson  
Chairman  
Council of the District of Columbia  
1350 Pennsylvania Avenue, N.W.  
Suite 504  
Washington, DC 20004

Dear Chairman Mendelson:

Pursuant to Sections 210(e) and 211(e) of the Clean and Affordable Energy Act of 2008 (CAEA), D.C. Law 17-250, effective October 22, 2008, and Section 8 of the Renewable Energy Portfolio Standard Act of 2004 ("REPS"), D.C. Law 15-340, effective April 12, 2005, I am pleased to submit the Department of Energy and Environment's (the Department) Fiscal Year 2016 Third Quarter Report for the April 1, 2016 – June 30, 2016 quarter. This report presents the revenue collection, budget, and expenditures of the Sustainable Energy Trust Fund ("SETF"), Energy Assistance Trust Fund ("EATF"), and Renewable Energy Development Fund ("REDF"), and describes the performance of EATF programs and expenditures during the quarter ending June 30, 2016. The Department did not administer any SETF or REDF programs during this quarter.

Additionally, pursuant to Sections 202(k) of the CAEA, the Department encloses the Fiscal Year 2016 Third Quarter Report on behalf of the District of Columbia Sustainable Energy Utility (DCSEU). This report details the activities and the accomplishments of the energy efficiency and renewable energy programs administered by the DCSEU during April 1, 2016 – June 30, 2016. This report was prepared by the DCSEU. The Department, as the contract administrator, transmits the report.

Please feel free to contact me or Dr. Taresa Lawrence at 202-671-3313 if you have any questions regarding this report.

Sincerely,

Muriel Bowser



DC  
SUSTAINABLE ENERGY  
UTILITY

## **Third Quarter Report for Fiscal Year 2016**

April 1 – June 30, 2016

**July 29, 2016**

# Table of Contents

MESSAGE FROM THE MANAGING DIRECTOR .....1

QUARTERLY FEATURE.....2

1. At a Glance: Progress against Benchmarks .....4

2. Core Area Performance .....6

3. Initiative Activity.....7

4. Sector Highlights in the Core Areas .....9

5. Activity Supporting DCSEU Programming .....12

## MESSAGE FROM THE MANAGING DIRECTOR

Well within the summer season, great strides toward the advancement of renewable energy are happening in the District of Columbia. In June, the Council of the District of Columbia unanimously approved the Renewable Portfolio Standard Expansion Amendment Act of 2016, demonstrating the Council's continued commitment to keeping the District moving towards a brighter, more sustainable future.

The DCSEU is committed to helping the city realize its renewable energy goals. In April, the DCSEU partnered with the Department of Energy and Environment (DOEE) to launch the Affordable Residential Solar program. The DCSEU is working with local solar contractors to install solar photovoltaic (PV) systems at no cost to income-qualified District residents. Last year's jointly-funded Solar Advantage Plus Program had a goal of installing and interconnecting 130 PV systems on income-qualified households by September 30<sup>th</sup>. By the end of the fiscal year, 137 systems had been installed. This year, we are on-track to meet our goal of installing and interconnecting 140 Affordable Residential Solar systems across the District by September 30<sup>th</sup>.

The DCSEU Small Business Solar Pilot was also launched in April, with a goal to provide up to 15 Solar PV systems at no cost to qualified small businesses located in Wards 7 and 8. The pilot represents the first time that a DOEE-DCSEU solar collaboration has expanded to include small businesses, and the DCSEU will learn from this program lessons to better understand the market conditions for future commercial solar PV installations. Both solar programs are funded by the Renewable Energy Development Fund (REDF).

In June, I participated in the ribbon-cutting ceremony for the renovation of the Channel Square Apartments, which boasts the largest private installation of rooftop solar in the District. The DCSEU provided incentives toward the solar array, alongside boiler replacements, and lighting improvements, among other energy conservation measures. Measures made possible by the DCSEU result in over \$2.7 million in lifetime energy savings for the residents. We are proud to call NHT/Enterprise a valued partner in our shared pursuit of increasing access to solar technology for District residents.

The DCSEU has been providing access to solar energy to low-income households at no cost since 2012. Each year, the DCSEU has met the challenge of increasing the number of low-income solar PV customers it serves, while steadily increasing the number of local contractors with which it collaborates to drive the solar initiatives. In four short years, the DCSEU has installed over 500 solar PV systems for income-qualified households in the District—one of few programs in the nation to offer the systems at no cost to customers. Washington, D.C. is clearly a leader in renewable energy. In partnership with DOEE and in collaboration with local businesses and residents across all Wards, the DCSEU will work tirelessly to help the city hit its Renewable Portfolio Standard goals and ensure the District's top position in this industry.

*Ted Trabue*

Managing Director

## QUARTERLY FEATURE

### Greener Schools, Brighter Futures

Paul Public Charter School was the first DC Public School to be reincarnated as a public charter school in the year 2000. Serving middle and high school students, the school is an option for the growing middle class seeking an alternative to more costly private schools in Ward 4 and beyond. Though the school was remodeled at the time it was recommissioned, the administration decided to take another look at the building and its systems in 2016 to seek areas for improvement in efficiency. In 2015, Paul Charter partner Jair Lynch introduced the school board and administration to the DCSEU.



The DCSEU worked with Paul Charter's school board and administration to facilitate a number of comprehensive renovations across the 125,000 square foot building. Though DCSEU engineers were originally brought in to inspect the heating and cooling system, they were able to also identify opportunities for improving lighting and lighting controls. The project with Paul Charter, which started in November 2015 and completed in June, will improve heating and cooling as well as light quality in the areas where students need it most, such as its new classrooms and gymnasium. The school now features high efficiency LED lights and lighting controls in its new classrooms and gymnasium, along with an efficient variable refrigerant flow (VRF) heating and cooling system.

"Any time that we are able to reduce our costs by this much, one hundred percent of the money goes back to the kids and will impact our students' experience," said Will Henderson, Director of Operations at Paul Charter. "The money goes into academic interventions that help support our highest-needs students, whether it's providing salaries to tutors so that we can offer more one-on-one support or helping to fund rewards systems for students who make academic or behavioral progress."

The improvements will reduce the school's annual natural gas use by more than 1,200 Mcf per year—reducing equivalent carbon dioxide emissions of approximately seven residential homes' energy use for one year. This reduction in energy will save the school approximately \$15,000 per year over the lifetime of the measures installed, freeing up much-needed funds for school programs, materials, and instruction for years to come.



This report of the District of Columbia Sustainable Energy Utility covers the period from April 1 through June 30, 2016. This progress report contains information about the DCSEU's activity to date in FY 2016 in the four core service areas: Residential, Low-Income Multifamily (LIMF), Renewables, and Commercial and Institutional (C&I).

The use of the term *DCSEU* throughout this report indicates an integrated collaboration among the members of the Sustainable Energy Partnership, under the leadership of the DCSEU Contractor, the Vermont Energy Investment Corporation: George L. Nichols & Associates, Groundswell, Institute for Market Transformation, PEER Consultants, and Nextility.

## 1. At a Glance: Progress against Benchmarks

**Table 1. Performance to date, measured against benchmarks and contract requirements<sup>1</sup>**

Category	Item	Description	Metric Unit	Benchmark Minimum	Period Results	Quarterly Results	Year to Date	Benchmark Progress
Performance Benchmarks	1a	Reduce per-capita consumption - Electricity	MWh	51,845	7,423	17,123	58,600	113%
	1b	Reduce per-capita consumption - Natural gas	Mcf	61,521	4,714	16,879	33,251	54%
	2	Increase renewable energy generating capacity	Cost / kWh	10% cost reduction over 2015				
	3	Reduce growth in peak demand	kW	2,000	1,048	2,472	7,340	367%
	4	Improve energy efficiency in low-income housing	% of annual budget	\$ 3,520,000	\$ 156,901	\$ 402,843	\$ 1,734,284	49%
	5	Reduce growth in energy demand of largest users	# of projects completed with a square footage of > 200,000	30	6	25	60	200%
Minimum Requirements	6	Increase number of green collar jobs <sup>a</sup>	Green job FTE's directly worked by DC residents, earning at least a Living Wage	103,350	7,187	29108	81415	79%
	7	Expenditure of annual SETF dollars allocated to DCSEU services	Fiscal year dollars	\$ 17,600,000	\$ 1,249,677	\$ 2,487,710	\$ 11,715,469	67%
	8	Expenditures with Certified Business Enterprises	Minimum expenditure for Certified Business Enterprises	\$ 3,105,554	\$ 122,072	\$ 282,225	\$ 877,398	28%
	9a	Annual expenditures related to electric energy efficiency	Program expenditures that reduce electrical energy consumption, allocated to sustainable energy activity	\$ 10,560,000	\$ 917,448	\$ 2,442,548	\$ 9,032,022	86%
	9b	Annual expenditures related to natural gas energy efficiency	Program expenditures that reduce natural gas consumption, allocated to sustainable energy activity	\$ 2,640,000	\$ 337,652	\$ 1,300,263	\$ 2,688,871	102%

<sup>a</sup> Period results are estimates subject to final verification of green job hours.

<sup>1</sup>The DCSEU provides services under a performance-based contract that contains a broad array of performance benchmarks and other contract requirements. These benchmarks are derived from goals established in the District's Clean and Affordable Energy Act of 2008. The DCSEU contract contains additional minimum contract requirements, beyond the contract performance goals.

Energy savings values in **Table 1** represent the first year's savings at the customer meter, with generally accepted utility adjustment values for: (1) free-ridership (action by customers who make efficiency improvements without program assistance); (2) spillover effects (action by customers who are influenced by the existence of the program to make efficiency improvements, but who are not program participants); and (3) energy losses (losses from electricity generation and distribution ["line losses"] and losses from natural gas generation and distribution).



## 2. Core Area Performance

	Commercial and Institutional	Low-Income Multifamily	Renewable Energy	Residential	Total
<b>DCSEU Expenditures</b>					
Expenditures for this period	\$ 861,323	\$ 141,468	\$ 6,095	\$ 240,791	\$ 1,249,677
Expenditures for this quarter	\$ 2,687,935	\$ 265,983	\$ 51,600	\$ 731,869	\$ 3,737,387
Year-to-date expenditures	\$ 7,566,770	\$ 653,587	\$ 721,412	\$ 2,773,699	\$ 11,715,469
Annual budget estimates	\$ 9,427,956	\$ 2,538,379	\$ 1,720,629	\$ 3,913,037	\$ 17,600,000
Percent of the annual budget spent	80%	26%	42%	71%	67%
<b>Annual Savings, MWh</b>					
Electricity savings (MWh) for this period	4,622	354	0	2,447	7,423
Electricity savings (MWh) for this quarter	11,940	530	0	4,653	17,123
Year-to-date savings (MWh)	42,422	1,014	217	14,948	58,600
Percent of annual MWh savings goal met	118%	25%	146%	63%	96%
<b>Summer Peak Demand Savings<sup>a</sup>, kW</b>					
Summer peak demand reduction (kW) for this period	716	64	0	268	1,048
Summer peak demand reduction (kW) for quarter	1,932	85	0	455	2,472
Year-to-date summer peak demand reduction (kW)	5,623	177	28	1,512	7,340
Percent of summer peak demand reduction goal met	479%	134%	576%	220%	367%
<b>Annual Savings, Mcf</b>					
Natural gas savings (Mcf) for this period	4,116	562	0	36	4,714
Natural gas savings (Mcf) for quarter	15,539	606	0	734	16,879
Year-to-date savings (Mcf)	29,236	1,104	1,165	1,746	33,251
Percent of annual Mcf savings goal met	15%	4%	8%	-2%	21%
<b>Lifetime Economic Benefit<sup>b</sup></b>					
Lifetime Economic Benefit for this period	\$ 28,839,611	\$ 868,499	0	\$ 2,105,435	\$ 31,813,546
Lifetime Economic Benefit for quarter	\$ 43,517,347	\$ 1,201,492	0	\$ 4,120,260	\$ 48,839,100
Year-to-date Lifetime Economic Benefit	\$ 88,499,008	\$ 2,461,665	\$ 1,116,285	\$ 13,200,108	\$ 105,277,065
<b>Participants Served</b>					
Participants served for this period	44	0	0	5,910	5,954
Participants served for this quarter	112	0	0	10,931	11,043
Year-to-date participants served	313	319	971	39,900	41,503

<sup>a</sup> Summer peak demand savings represent the avoided electrical demand at the time of summer peak.

<sup>b</sup> Lifetime Economic Benefit is the present value of the avoided cost of energy over the life of installed efficiency measures.

### 3. Initiative Activity

**Table 3. Initiative activity by sector<sup>2</sup>**

Sector	Initiative	Year-to-Date Results	
		Number of participants with installed measures	Annual customer cost savings
Commercial and Institutional	Business Energy Rebates	174	\$1,513,365
	Commercial and Institutional Custom	122	\$4,803,793
	T12 Market Transformation	5	\$143,197
	T12 Replacement		
Low-Income Multifamily	Low-Income Comprehensive	319	\$144,563
	Implementation Contractor Direct Installation		
	T12 Replacement		
Renewable Energy	Solar Hot Water		
	Solar Photovoltaic Systems	971	\$34,469
Residential	Retail Efficient Products	39,184	\$1,633,741
	Efficient Products Food Bank		
	Home Performance with ENERGY STAR	188	\$18,659
	Low-Income Services	3	\$219

**Table 4. Project pipeline, by sector and initiative**

Sector	Initiative	Estimated electricity savings (MWh)	Estimated gas savings (Mcf)
Commercial and Institutional	Business Energy Rebates <sup>a</sup>	2,212	0
	Commercial and Institutional Custom	5,697	33,158
	T12 Market Transformation	1,080	683
	T12 Replacement Direct Install		
Low-Income Multifamily	Low-Income Comprehensive	2,778	5,297
	Implementation Contractor Direct Installation <sup>b</sup>		
	T12 Replacement		
Renewable Energy	Solar Hot Water	0	614
	Solar Photovoltaic Systems	1,183	0
Residential	Retail Efficient Products <sup>c</sup>	4,031	429
	Efficient Products Food Bank		
	Home Performance with ENERGY STAR	4	111
	Low-Income Services	1	66

<sup>a</sup>Electricity and natural gas savings for Business Energy Rebates are provided for completed rebate projects.

<sup>b</sup> The Implementation Contractor Direct Installation, T12 Replacement, and Solar Photovoltaic Systems initiatives are not adding projects at this time.

<sup>c</sup> The Retail Efficient Products and Efficient Products Food Bank initiatives measure energy savings from the sale and distribution of efficient products and do not have a pipeline of projects.

<sup>2</sup> For a list of FY 2016 initiatives, please see **Table 6. DCSEU initiatives, by sector.**

**Table 5.Quantity of measures installed, year to date, by category and initiative**

Energy Efficiency Measures	Business Energy Rebates	C&I Custom	T12 Market Transformation	Efficient Products Food Bank	Federal Home Loan Bank Home Performance	Home Performance with ENERGY STAR	Implementation Contractor Direct Installation	Low-Income Comprehensive	Retail Efficient Products	Solar Hot Water	Solar Photovoltaic Systems	Total
Air Conditioning Efficiency		625						294	143			1,062
Cooking and Laundry		4						51	376			431
Design Assistance		6						6				12
Hot Water Efficiency		9						5			3	17
Hot Water Replacement		3						5	17			25
Light Bulb/Lamp	47,835	30,839	1,186					102	212,441			292,403
Lighting Efficiency/Controls	1,126	4,933	114					23				6,196
Lighting Hardwired Fixture	19,461	12,790	2,211					2,881	21,843			59,186
Motor Controls		93										93
Motors		11						12				23
Other		1	14			107			52			174
Other Fuel Switch											21	21
Refrigeration		15						250	141			406
Space Heat Efficiency		8			1	364		47	30			450
Space Heat Replacement		20				1		66	60			147
Thermal Shell		5			4	339		29				377
Ventilation		47						432				479
Water Conservation		3										3
<b>Total</b>	<b>68,422</b>	<b>49,412</b>	<b>3,525</b>	<b>0</b>	<b>5</b>	<b>811</b>	<b>0</b>	<b>4,203</b>	<b>235,103</b>	<b>0</b>	<b>24</b>	<b>361,505</b>

## 4. Sector Highlights in the Core Areas

### Residential Services

- **Home Performance with ENERGY STAR.** The DCSEU completed 59 Home Performance with ENERGY STAR projects in the third quarter. There are an additional 12 projects in the pipeline. Starting April 1, incentives for completing Home Performance projects with the DCSEU changed. District homeowners who complete a DCSEU Home Performance project are now eligible to be reimbursed by the DCSEU up to 50% of the cost of air sealing up to \$150, and for 50% of cost of insulation up to \$300.
- **Income Qualified Weatherization.** The DCSEU launched an Income Qualified Weatherization initiative in May. This program is designed to provide energy efficiency and weatherization services to income qualified District residents. Aimed at lowering the energy burden for these households, the program provides these services at no cost to residents. The DCSEU is on track to meet its goal of completing 25 Income Qualified Weatherization projects by the end of the fiscal year.
- **Updated retail efficient equipment incentives.** In the third quarter, the DCSEU finalized and implemented mid-year incentive changes for DCSEU retail efficient products promotions. Due to the changing lighting market, the DCSEU is reduced LED incentives from a maximum of \$10 per LED bulb to \$5 per LED bulb, effective April 1. Since many retail prices for efficient lighting steadily lowered this spring, the price of DCSEU-discounted LEDs remain similar for the customer despite the DCSEU's incentive update. In order to serve as many customers as possible throughout the year, the DCSEU also reduced rebates for air source heat pumps and central air conditioning equipment, effective April 1. The DCSEU also extended its efficient clothes dryer rebate through September 30.
- **In-store retail events.** In support of the DCSEU's growing partnership with Annie's Ace Hardware, the DCSEU attended the Brookland location's grand opening on April 1. The DCSEU staffed a table, answering customers' questions about LEDs and providing information on efficient lighting options. The staff spoke with over 100 customers and encouraged many to purchase ENERGY STAR LED bulbs. The event was part of an ongoing the series of in-store retail events to promote efficient lighting and appliances at local participating retailers.



- **ACI Weatherization Conference.** On April 4 through 7, the DCSEU attended the 2016 Affordable Comfort, Inc. (ACI) Weatherization Conference and Trade Show, hosted by the Home Performance Coalition. The DCSEU attended the conference to learn about new trends in the weatherization industry, such as new air flow standards, mold remediation techniques, and how similar organizations across the country are evaluating their impact. DCSEU Home Performance Manager Peter Swinton also gave a presentation at the conference on how to forge and strengthen partnerships among non-profits and government agencies. Approximately 300 industry professionals attended the conference.
- **Progress in the residential market.** DCSEU residential initiatives serve the District residents, from single-family homeowners to renters purchasing efficient light bulbs. To date in FY 2016, the DCSEU has achieved electricity savings of 14,948 MWh in the residential market—63% of its annual MWh savings goal. The DCSEU has also achieved natural gas savings of 1,746 Mcf in this market—2% of its annual natural gas savings goal. At this time last year, the DCSEU had hit 46% of its annual MWh savings goal and -2% of its annual natural gas savings goal in this market. The DCSEU is on track to meet both goals in FY 2016. There have been 39,900 participants served in the residential market to date.

### **Low-Income Multifamily**

- **Low-income multifamily comprehensive.** The DCSEU completed six low-income multifamily comprehensive project in the third quarter. These projects will result in estimated annual savings of 602 MWh (electricity) and 1384 Mcf (natural gas). The DCSEU has completed 10 low-income multifamily comprehensive projects so far in FY 2016. In FY 2015, the DCSEU completed six low-income multifamily comprehensive projects.
- **Celebrating advancements in affordable housing.** In the third quarter, the DCSEU celebrated the District's advancements in affordable housing at two ribbon-cutting events. On June 16, the DCSEU attended the Girard Street Apartments in Northeast DC, alongside Mayor Muriel Bowser, Councilmember Kenyan McDuffie, and Director of the Department of Housing and Community Development (DHCD), Polly Donaldson. The DCSEU partnered with Miriam's Kitchen to provide incentives for incorporating energy-saving measures such as energy-efficient, individually-controlled heating and cooling systems and energy-efficient appliances into the construction of this 25-unit home for seniors aged 55 and older. On June 22, the

DCSEU also attended the ribbon-cutting event at the Channel Square Apartments in Southwest DC. DCSEU Managing Director spoke alongside Mayor Bowser the event, celebrating the largest private solar installation of solar in the District. The DCSEU provided incentives to help make these solar panels possible, and also contributed funds toward other measures such as energy-efficient lighting and a new efficient boiler and HVAC system. Energy-saving measures made possible by the DCSEU will result in over \$2.7 million in lifetime energy savings.

- **Progress in the low-income multifamily market.** DCSEU low-income multifamily initiatives typically serve the District's affordable multifamily housing community. To date in FY 2016, the DCSEU has achieved electricity savings of 1,014 MWh in the low-income multifamily—25% of its annual MWh savings goal. The DCSEU has also achieved natural gas savings of 1,104 Mcf in this market—4% of its annual natural gas savings goal. At this time last year, the DCSEU had hit 86% of its annual MWh savings goal and 11% of its annual natural gas savings goal in this market. The DCSEU is on track to meet both goals in FY 2016. There have been 319 participants served in the low-income multifamily market to date.

## Renewable Energy

- **Affordable Residential and Small Business Solar.** The DCSEU launched its Affordable Residential and Small Business Solar initiatives in the third quarter. The DCSEU secured funding for the programs at the end of April, allowing the programs to begin immediately with a soft launch. Solar panels are offered at no cost to income-qualified residents city-wide, as well as business owners in Wards 7 and 8. Contractor orientation took place on May 17, with representatives from DOEE, the Department of Consumer and Regulatory Affairs (DCRA), Pepco, and the DCSEU in attendance to discuss their respective portions of the process and expectations. For details about the progress of these initiatives, please see the attached **Third Quarter REDF Report for Fiscal Year 2016**.
- **Million Solar Strong.** On May 3, the DCSEU joined the Million Solar Strong celebration, where solar industry leaders and local government officials gathered in Northeast DC at a live solar installation to celebrate America's one millionth solar installation. The event, a partnership with GRID Alternatives, the Solar Energy Industries Association (SEIA) and the Smart Electric Power Alliance (SEPA), kicked off the national #millionsolarstrong campaign.

- **Progress in the renewable energy market.** DCSEU renewable energy initiatives typically serve the District’s income-qualified residents. To date in FY 2016, the DCSEU has achieved electricity savings of 217 MWh in the renewable energy market—146% of its annual MWh savings goal. The DCSEU has also achieved natural gas savings of 1,165 Mcf in this market—8% of its annual natural gas savings goal. At this time last year, the DCSEU had hit 350% of its annual MWh savings goal and 15% of its annual natural gas savings goal in this market. The DCSEU is on track to meet both goals in FY 2016. There have been 971 participants served in the renewable energy market to date.

### Commercial and Institutional

- **Custom projects completed.** In the third quarter, the DCSEU completed 29 Commercial and Institutional custom, with estimated annual savings of 6,306 MWh (electricity) and 18,144 Mcf (natural gas).
- **Department of General Services National Building Museum.** The DCSEU is closely partnering with the General Services Administration (GSA) to reduce the Energy Use Intensity for a portfolio of buildings, including the National Building Museum. The DCSEU provided incentives and technical assistance to select and install 280 LEDs for the museum’s great hall, its main event space. A previous analysis completed by the DCSEU found that, during the National Building Museum’s December 2014 holiday party, demand charges were almost \$10,000—half of the electricity cost for the month of and 30% more than any day with summer cooling. As a result, the DCSEU is working with GSA to conduct ongoing data logging, analysis, and qualitative work to identify irregularities in event electricity charges. The results may help DCSEU and GSA identify opportunities to restructure how the agency charges vendors and event exhibitors for energy.
- **Cathedral Commons.** In April, the DCSEU completed a new construction project at Cathedral Commons. The multifamily building in the Cathedral Heights neighborhood is the first DCSEU new construction project for which the analysis was completed utilizing the LEED certification procedure. DCSEU engineers have worked together to develop an expedited process to take advantage of work already being done on new construction projects if the developer is trying to attain LEED certification. This novel approach expedites and improves the accuracy of DCSEU savings analyses using models verified by LEED. The efficiency measures completed at Cathedral Commons

will reduce the building's energy use by approximately 1357 Mcf of natural gas and 302 MWh of electricity each year, and reduce energy costs by more than \$787,000 over the lifetime of the equipment installed.

- **American University.** In May, the DCSEU completed the second phase of a pipe insulation project at American University. In an effort to increase pipe insulation across the city, the DCSEU has put on two live case study and discussion forums at American University in conjunction with Thermaxx Jackets. Pipe insulation provides dependable return on investments for many DC customers, particularly those that have steam plants and are losing tremendous amounts of heat due to a lack of insulation. The jackets are easy to install, with short payback periods. The DCSEU is working to educate as many customers as possible of the process and benefits of installing pipe insulation. The DCSEU has completed six pipe insulation projects to date and has six more in the pipeline. The second phase of the American University pipe insulation project will save approximately 363 Mcf annually and will save the university more than \$56,800 over the life of the jackets.
- **Putting Data to Work: Harness Your Building Metrics to Improve Performance.** On May 25, the DCSEU and Smarter DC Challenge hosted an informational forum, "Putting Data to Work: Harness Your Building Metrics to Improve Performance", on how to collect building data, analyze it, and make proactive decisions that save money and streamline building operations. Industry experts Kevin Kampschroer, Director of the Office of Federal High-Performance Green Building at the U.S. General Services Administration (GSA), Joe Hirl, CEO at Agilis Energy, and Shawn Thompson, Vice President of Product and Operations at Aquicore, presented at the event. More than 100 people attended the event.
- **Energy Efficiency Financing Program.** In May, the DCSEU conducted walkthroughs of 12 churches, through which 10 were referred to the DCSEU's Energy Efficiency Financing Program (EEFP). The EEFP is designed to help businesses gain access to financing to fund their energy efficiency upgrades. On behalf of these businesses, the





DCSEU provides project information to lenders to demonstrate the savings that can be realized by implementing energy efficiency upgrades. Once project information is shared, lenders can review the project details and get in touch with customers if they have a product that might be right for their business or project. The DCSEU is partnering with the DC Office of the People's Counsel to conduct outreach about this program to the District's faith-based community.

- **Business Energy Rebates.** The DCSEU completed 89 commercial projects involving Business Energy Rebates (BER) in the third quarter, with an estimated total rebate value of \$544,000. The BER initiative serves the District's small and medium-sized businesses, providing rebates for energy-efficient lighting, heating, refrigeration, cooking, and other qualifying equipment. By the end of June, the DCSEU had 78 active (under way, but not yet completed) BER projects, with an estimated rebate value of over \$240,000. There is also a pipeline of 36 project opportunities.
- **Commercial Direct Services.** The Commercial Direct Services initiative serves primarily small and medium-size commercial businesses with direct installation of energy efficiency measures. In the third quarter, the DCSEU completed one Commercial Direct Services projects, with an estimated incentive value of \$2,370. There were an additional seven projects in the pipeline with an estimated cumulative value of \$165,000.
- **Progress in the commercial and institutional market.** DCSEU commercial and institutional initiatives typically serve small to medium-sized businesses, universities, hotels, and other large commercial spaces. To date in FY 2016, the DCSEU has achieved electricity savings of 42,422 MWh in the commercial and institutional market—118% of its annual MWh savings goal. The DCSEU has also achieved natural gas savings of 29,236 Mcf in this market—15% of its annual natural gas savings goal. At this time last year, the DCSEU had hit 60% of its annual MWh savings goal and 34% of its annual natural gas savings goal in this market. The DCSEU is on track to meet both goals in FY 2016. There have been 313 participants served in the commercial and institutional market to date.

## Green Jobs

- **Workforce Development 2016 Winter/Spring Cohort Graduation.**

On May 4, the DCSEU celebrated the graduation of its Workforce Development Program 2016 Winter/Spring cohort. Nine graduates received certificates for completion of the program,



all of whom obtained permanent employment with organizations such as the Department of Employment Services, Greenscape Environmental Services, Savage Technical Services, the US Department of Commerce, and Westlake Reed Lokosky, among others.

## 5. Activity Supporting DCSEU Initiatives

### Advanced Technical Analysis Support

- **Strategic Technology Services.** The Strategic Technology Services team released updated versions of the KITT internal web application and the HERO system in the third quarter. KITT is VEIC's core application for overall project and customer relationship management. It is used for tracking, processing, and reporting of portfolio, projects, customer, incentives, and energy savings, allowing the DCSEU to accurately track progress against goals, customer interactions, and project opportunities. In April, KITT 3.49.0 was released with bug fixes, general improvements, and new features. In May, KITT 3.50.0 was released with some improvements for many KITT entities. An updated version of HERO, HERO 3.27.0, was also released with changes for DC Home Performance incentive structure and other measure updates. HERO is an online tool used to record information pertaining to Home Performance projects, allowing DCSEU participating contractors to track improvement recommendations and communicate project information to the DCSEU. Updated versions of HERO, HERO 3.27.1 and 3.27.2, were also released in the third quarter.

## Public Affairs

- **Climate, Energy and Environment Policy Committee.** On May 25 and June 20, the DCSEU attended the first meeting of the Metropolitan Washington Council of Government's (MWCOG's) Climate, Energy and Environment Policy Committee (CEEPC) as a stakeholder representative. These meetings kicked off the process of developing the 2017-2020 Climate and Energy Action Plan, which is intended to be a key part of how the region will meet its 2020 greenhouse gas emission reduction goals. The DCSEU also reported on the launch and progress of its Affordable Resident and Small Business Solar initiatives. CEEPC's mission is to serve as the MWCOG Board's primary policy advisor on climate change, energy green building, alternative fuels, solid waste, and recycling. It is charged with implementing recommendations made in the National Capital Region Climate Change Report and oversees projects to achieve regional greenhouse gas emissions reduction goals. DCSEU Managing Director Ted Trabue was appointed by the Vice President of the Fairfax County Board of Supervisors, Penelope A. Gross, to represent the business community sector. The DCSEU's George Nichols was appointed as his alternate.
- **USAID PACE-D India Delegation.** The DCSEU hosted the India USAID PACE-D delegation on April 5. Also in attendance was a representative from the DC Public Service Commission (PSC). The delegation requested a presentation and discussion about the 2015 Solar Advantage Plus Program. The DCSEU made a presentation to the delegation about the program, with discussion topics ranging from program design and implementation to program challenges, renewable energy policy, and regulatory and business models. The PACE-D Technical Assistance Program, a part of the overall Partnership to Advance Clean Energy (PACE) program, was formally launched on July 31, 2012. The five year program builds on USAID/India's previous energy programs and aims to promote low-carbon growth via clean energy deployment, technology pilots, innovative financing mechanisms, and the capacity building of stakeholders. This initiative is largely based on bilateral agreements signed between the U.S and India, one on energy efficiency technology commercialization and innovation with the Ministry of Power as the line ministry, and the other on renewable energy technology commercialization and innovation with the Ministry of New and Renewable Energy as the line ministry.

## Public Relations

- **Earned media.** The DCSEU received 83 earned media mentions in the third quarter. On April 1, the DCSEU was mentioned in a CNN Money article, “Bringing Solar Power and Jobs to Low-Income Neighborhoods”. The article was featured in 13 news outlets. On April 1, the DCSEU was also featured in an article by Food Service Equipment & Supplied, “Union Kitchen Supports Growth and New Product Development”. The DCSEU was featured on April 20 in a Washington Informer article, “OPC’s Guide to Go Solar, a Renewable, Clean Energy Option” and a Washington Post article, “Cost of Solar Energy Falls Every Time the Sun Rises”. The DCSEU was also featured an article on April 22, 23, and 30, originally printed by The Richmond Register. The article, “Like the Sun, the Use of Solar is Rising” was featured in 58 publications. On April 27, the DCSEU was also featured in the Washington Informer article, “‘Power of One’ Connects Millennials to the Community”. On May 4, the DCSEU was the spotlight in a Capital Community News article, “Hey, DC. Rebates Abound at the DCSEU!”, informing District residents about the availability of DCSEU rebates for purchasing energy-saving appliances, cooling and heating systems, and lighting. On May 6, the DCSEU was also featured in a Washington Hispanic article, “Preparan a Hispanos en Energia Limpia”, informing the District’s Spanish-speaking community about available DCSEU services. The DCSEU was featured on May 9 on the Good Morning Washington live segment on WJLA (see next bullet for details). The DCSEU was also featured May 12 in the Energy Collective article, “Want to Improve Your Multifamily Energy Efficiency Program? Our New Report Shows You the Way”, highlighting the importance of energy efficiency in affordable multifamily housing. On May 24, the DCSEU was featured on the U.S. Office of Personnel Management (OPM) Director’s Blog, in a post titled “Recognizing OPM’s Leadership in Energy Efficiency”. The DCSEU nominated OPM as a 2016 NEEP Business Leader for Energy Efficiency, an honor the agency won for the work it has done with the DCSEU to reduce its energy and water use. As a result the DCSEU was also featured in a Smart Grid News article on May 24, “Northeast saves millions from energy efficiency”.

- **WJLA Good Morning Washington.** On May 9, DCSEU Managing Director Theodore Trabue and DC Home Performance Program Manager Peter Swinton presented the benefits of the DC Home Performance program and special reduced pricing on efficient lighting to views of the local news program Good Morning Washington on WJLA.



- **NEEP Business Leaders Awards.** The DCSEU nominated a federal customer for the Northeast Energy Efficiency Partnerships (NEEP) 2016 Business Leaders for Energy Efficiency Awards in February. NEEP is a non-profit whose mission is to serve the Northeast and Mid-Atlantic to accelerate energy efficiency in the building sector through public policy, program strategies and education. This recognition program highlights the accomplishments of organizations participating in energy efficiency programs across the northeast region. Past DCSEU nominees who received the Award are National Housing Trust (2015), JW Marriott (2014), American University (2013), and University of the District of Columbia (2012). In May, the winners of the 2016 Business Leaders for Energy Efficiency Awards were announced publicly, with OPM being recognized as the District of Columbia Business Leaders for Energy Efficiency. This year's business efficiency leaders, and their nominating ratepayer-funded energy efficiency programs, were recognized on June 13 at a recognition dinner during NEEP's Northeast Energy Efficiency Summit.
- **DCSEU on Atlantic Live.** On June 9, *The Atlantic* held a live policy forum, “Access to Power: A Forum on Energy Equity”, to engage regulators, industry leaders, innovators and community advocates in a conversation about making clean energy more accessible for all. DCSEU Managing Director Ted Trabue participated on a panel alongside Groundswell and the NAACP, to discuss the DCSEU's role in helping alleviate the burden of energy costs on low-income residents in the District.

### Community Outreach

- **Community events.** The DCSEU staffed 16 community events in the third quarter. On April 5 through 7, the DCSEU partnered with Steve Winters Associates to hold the first annual Power Down DC, a multifamily energy and water challenge. The goal of the competition is for a selected number of multifamily properties to reduce their overall

energy consumption by at least 5%. The DCSEU provided attendees with interactive activities and comprehensive knowledge on free or low-cost ways of decreasing energy use. On April 30, to support residents of Ward 6, the DCSEU presented at the District of Columbia Housing Authority's New Homeowners Association Meeting. The DCSEU was a resource for homeowners to understand options and resources available to them to improve and reduce their overall energy use. On April 30, the DCSEU also attended and co-sponsored the annual Broccoli City Festival. The DCSEU staffed a booth at the event, encouraging District residents to invest in energy efficiency. On June 4, the DCSEU sponsored and attended the fourth annual Global EEE DC Electric Vehicle Grand Prix (see **DC Electric Vehicle Grand Prix** below). Also on June 4, the DCSEU presented along with Habitat for Humanity at Manna Inc.'s Home for All Workshop to make attendees aware of the DCSEU's efficient appliance and lighting rebates. On June 11, the DCSEU staffed a table at the eighth annual DC Housing Expo, hosted by the Department of Housing and Community Development (DHCD). The DCSEU also attended the Boys and Girls Club's annual STEAM Block Party. DCSEU engineers attended the event to encourage youth to pursue endeavors in the STEAM fields (science, technology, engineering, art, and mathematics).

- **Earth Day events.** In honor of Earth Day, the DCSEU partnered with several District agencies and other partners to promote energy efficiency. During Earth Week, the DCSEU attended the Chevy Chase Community Wellness Fair, hosted by the DC Office on Aging (DCOA), the Earth Day event at the Federal Energy Regulatory Commission (FERC) offices, the Department of Commerce Earth Day Celebration, the Department of Health and Human Services Earth Day Celebration, the Washington, DC Veterans' Affairs Medical Center annual Earth Day celebration, and the Howard University Earth Day celebration. The DCSEU spoke with attendees at these events to raise awareness about DCSEU offerings and used an interactive light meter display to engage with and educate attendees on the benefits of using efficient LED bulbs.



- **DC Electric Vehicle Grand Prix.** On June 4, high school students from the District of Columbia, Maryland, and Virginia competed in the 2016 Washington DC Electric Vehicle Grand Prix (EV Grand Prix) at the Robert F. Kennedy Memorial Stadium, organized by Global EEE (Education, Energy, and Environment). DDOE hosted the fourth annual competition in partnership with DOE and the DCSEU. The DCSEU sponsored HD Woodson High School, assisting the student team with engineering knowledge as it constructed its vehicle.

## Marketing

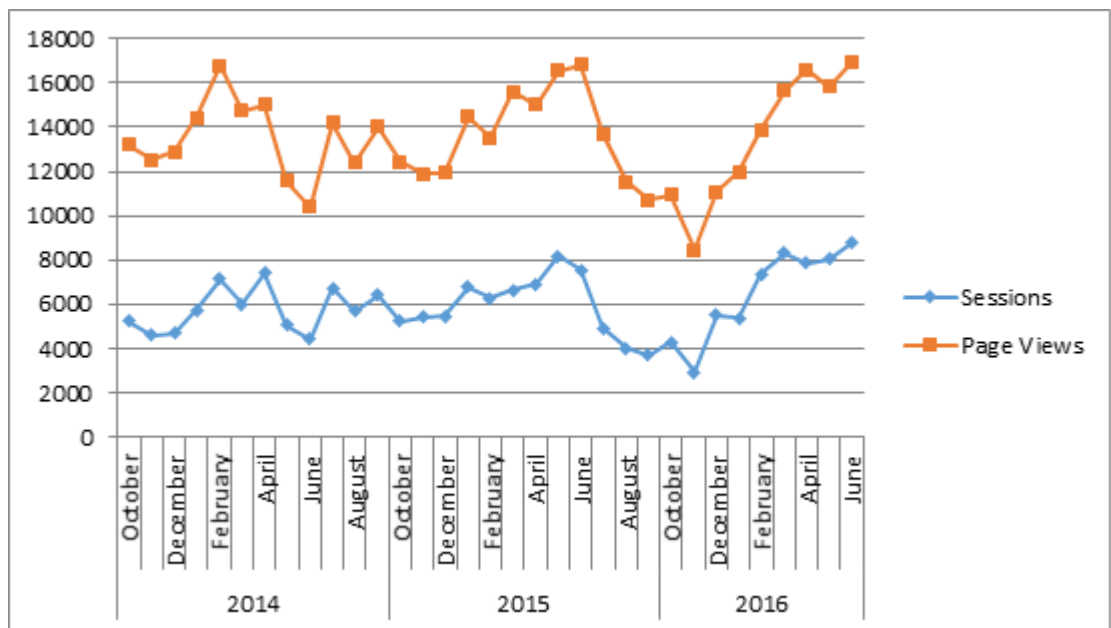


Figure 1. DCSEU website visits and page views, by month, FY 2014, 2015, and 2016 to date

- Third-quarter website visits **24,703**
- Facebook **451 Likes**
- Twitter **1,351 Followers**
- **Summer cooling campaign.** In April, the DCSEU launched its summer cooling marketing campaign to promote energy efficient room and central air conditioning equipment. The campaign began in April with Pandora Internet Radio and Capital Community News advertisements. The campaign continued in May and June with additional advertising placements on Washington Post Plus, Google Adwords search and display advertising, and local blog popville.com. As of the end of the third

quarter, this campaign drove 3,652 page views and 2,683 visits to the DCSEU website, including more than 1,000 first-time visitors.



- **Search engine optimization.** In the third quarter, the marketing team worked to improve search engine optimization. This will ensure that quality and consistent traffic is directed to the DCSEU website through organic searches and online advertising.
- **Support for launch of solar initiatives.** In the third quarter, the marketing team supported the DCSEU affordable residential and small business solar initiatives with informational flyers, landing pages on the DCSEU website, program applications, and other logistical support. The team is continuing to monitor traffic to solar web pages and downloads of solar applications.

**Table 6. DCSEU initiatives, by sector**

Core Area	Initiative Name	Description	Customer	Status
Residential	Efficient Products	Deep discounts on CFLs and LEDs with partnering retailers in DC; mail-in rebates for qualifying energy-efficient appliances	DC residents	On track
	Home Performance with ENERGY STAR	Rebates for energy efficiency improvements: air and duct sealing, insulation, and heating system improvements	DC single-family homeowners	On track
	Income-Qualified Services	Home energy improvements such as air and duct sealing, insulation, and heating system improvements	Pre-enrolled DC single-family homeowners meeting income requirements	On track



Core Area	Initiative Name	Description	Customer	Status
<b>Low-Income Multifamily</b>	Low-Income Multifamily Comprehensive	Custom technical and financial assistance for energy efficiency improvements for multifamily properties	Property owners of multifamily buildings, shelters, and clinics serving DC residents meeting income requirements	On track
	Low-Income Implementation Contractor Direct Services	Direct installation of CFLs, low-flow faucet aerators and showerheads, hot water tank wrap, and pipe wrap in low-income multifamily properties	Property owners of multifamily buildings, shelters, and clinics serving DC residents meeting income requirements	On track
<b>Renewable Energy</b>	Affordable Solar Photovoltaic (PV)	No-cost installation of solar PV systems	DC single-family homeowners meeting income requirements	On track
	Small to Medium-size Commercial Solar	Incentives and financing to install solar PV systems	Small to medium-size business owners	On track
	Solar Thermal	Incentives to install solar thermal arrays to provide hot water and reduce natural gas consumption	Income-qualified cooperative housing and property owners of multifamily buildings serving DC residents meeting income requirements	On track
<b>Commercial and Institutional</b>	Business Energy Rebates	Rebates for energy-efficient lighting, heating, refrigeration, cooking, and other qualifying equipment	Business owners	On track
	Commercial Direct Services	Direct installation of energy efficiency measures at primarily small and medium-size commercial businesses	Business owners	On track

Core Area	Initiative Name	Description	Customer	Status
	Commercial and Institutional Custom	Technical assistance, account management, and financial incentives for energy efficiency projects	Large commercial and institutional customers	On track





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## **Third Quarter REDF Report for Fiscal Year 2016**

April 1 – June 30, 2016

**July 29, 2016**

## Quarterly DCSEU REDF Highlights

### Achievements

- Outreach to potential customers.** The DCSEU continued outreach to potential Affordable Residential and Small Business Solar applicants, working in collaboration with contractors, DOEE, DC Housing Authority (DCHA), and the Department of Health and Community Development (DHCD) to find qualified candidates. The goal is to have 140 applications for residential program participants and 15 applications for small business program participants submitted to Pepco before July 6 to ensure systems are interconnected by September 15. The DCSEU is on track to meet this goal. As of June 30, 2016, the DCSEU had submitted 92 applications for Affordable Residential Solar and 11 applications for Small Business Solar to Pepco.

### Progress against Goals

**Table 1. Performance to date, Affordable Residential Solar**

Opportunities assigned to contractors	Opportunities in conversion Pipeline	Opportunities converted to Applications	Opportunities converted to Work Orders	Forecast (Projects to be Completed)	Actual (Projects Completed)	Total
188	100	38	140	100	40	140

**Table 2. Performance to date, Affordable Small Business Solar**

Opportunities assigned to contractors	Opportunities in conversion Pipeline	Opportunities converted to Applications	Opportunities converted to Work Orders	Forecast (Projects to be Completed)	Actual (Projects Completed)
44	44	0	14	15	0

**Table 3. REDF Performance to date, measured against benchmarks and contract requirements**

Category	Item	Description	Metric Unit	Benchmark Minimum	Period Results	Quarterly Results	Year to Date	Benchmark Progress
Affordable Solar	1a	Expenditure of REDF dollars	REDF dollars	\$ 1,880,447	\$ 138,000	157,606	\$ 157,606	8%
	1b	Installation of Solar PV systems	# of projects completed	140	11	11	40	29%
Small Business Solar Pilot	1a	Expenditure of REDF dollars	Fiscal year dollars	\$ 536,384	\$ 16,053	\$ 17,299	\$ 17,299	3%
	1b	Installation of Solar PV systems	# of projects completed	15	0	0	0	0%