GOVERNMENT OF THE DISTRICT OF COLUMBIA District Department of the Environment



February 19, 2014

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

RE: Clean and Affordable Energy Act of 2008, D.C. Law 17-250

Dear Chairman Mendelson:

Pursuant to sections 210 of the Clean and Affordable Energy Act of 2008 ("CAEA"), D.C. Law 17-250, the District Department of the Environment ("DDOE") is pleased to submit the enclosed Fiscal Year 2014 First Quarterly Report on behalf of the District of Columbia Sustainable Energy Utility ("DC SEU"). This report details the activities undertaken and the accomplishments of the energy efficiency and renewable energy programs administered during October 1, 2013 – December 31, 2013. The report was prepared by the DC SEU. DDOE, the designated contract administrator, is transmitting the attached report.

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

Sincerel Keith A. Anderson

Director

Attachments

cc: Councilmember Mary Cheh, Chairperson, Committee on the Environment, Public Works, and Transportation
 Councilmembers for the District of Columbia
 Nyasha Smith, Secretary of the Council

DISTRICT DEPARTMENT OF THE ENVIRONMENT green forward



1200 First St. NE, 5th Floor, Washington, DC 20002 | tel: 202.535.2600 | web ddoe.dc.gov



First Quarter Report for Fiscal Year 2014

October 1 – December 31, 2013

January 31, 2014

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MESSAGE FROM THE MANAGING DIRECTOR

w in its third full year of operation, the DCSEU has a portfolio of 12 initiatives, a staff of 40 District residents, a new brand and website, and an increased presence in the community. This year and for the first time, the DCSEU will receive its full funding of \$20 million to achieve six Performance Benchmarks: (1) reduce city-wide energy consumption, (2) increase renewable energy generating capacity, (3) reduce the growth in peak demand, (4) reduce the energy demand from the city's largest energy users, (5) create green jobs, and (6) improve the energy efficiency of low-income housing.

We've been working diligently in the first quarter to increase our effectiveness in 2014. With the additional funding, we plan to reach more customers, offer more rebates, and create more job opportunities for District residents and local businesses. Since the beginning of the fiscal year, we've made major strides to achieving greater energy savings in our Home Performance with ENERGY STAR[®] and Commercial and Institutional Custom initiatives.

In December, we welcomed Sheryl Dove as our new Director of Residential Programs and introduced incentives for customers working with the DCSEU and District-based contractors to improve the energy efficiency of their homes. Customers can now receive up to \$1,800 in financial incentives to offset the costs of receiving a comprehensive home energy audit, air-sealing, and insulation.

Over the past year, we've strengthened the engineering team here at the DCSEU through hiring and training. The DCSEU now has a seven-person engineering team with greater expertise than before in multifamily building systems, solar thermal projects, and data tracking and analysis. This additional strength in our engineering department will help us to complete more projects in a more timely manner, so that we can meet our ambitious energy savings goals in 2014.

In 2008, the City Council articulated its vision for energy efficiency and economic development through the passage of the Clean and Affordable Energy Act. In the spring of 2011, the DCSEU was created and began offering residential and commercial programs. Since then, the DCSEU has matured. We've grown into an organization that's creating green jobs for staff, contractors, and vendors in the District; expanding opportunities for local businesses; and driving energy efficiency savings in all of the DCSEU's market sectors. In 2014, as we see our first year of full funding, it is incumbent upon us to make the Council's vision a reality for the District.

Ted Trabue

Managing Director

QUARTERLY FEATURE

Branching Out for Greater Energy Savings

The need is growing for high-quality, mixed-income housing in an increasing number of economically diverse neighborhoods throughout the District. In Northwest DC, the 3 Tree Flats multifamily development was designed to revitalize the Petworth neighborhood with a healthy apartment community. This community accommodates both affordable housing and market-rate renters, with 120 of the complex's 130 units reserved for income-qualified residents. The 3 Tree Flats apartment building, once known as Georgia Commons, gets its name from the stainless steel



sculpture that adorns the urban garden space in the building's interior courtyard. The building also features sustainable residential amenities, including a green roof terrace. This terrace earned the property LEED[®] Gold Neighborhood Development certification from the U.S. Green Building Council.

The property features not only a green roof, but also energy-efficient lighting and water-saving features in each unit. DCSEU worked with Teaming Partner Skyline Innovations to help the 3 Tree Flats management and development teams — Equity Management, Affordable Housing Developers and Jair Lynch Development Partners — further their commitment to sustainability. Skyline suggested improving 3 Tree Flats' natural gas efficiency with a solar thermal hot water system. After evaluating 3 Tree Flats' energy usage and building type, Skyline Innovations installed 44 rooftop solar collectors and a 2,700 gallon tank to heat and store water for the building's use. In addition to receiving financial support from the DCSEU, 3 Tree Flats also accepted project development services from Skyline Innovations at no additional cost.

"Skyline is proud to work with DCSEU," said Zach Axelrod, CEO of Skyline Innovations. "DCSEU's support of this project demonstrates their commitment to growing the District's green economy and advancing the Mayor's sustainability plan. The 3 Tree Flats project fit perfectly with our vision of making the best energy choices effortless for our customers, in turn helping to preserve the affordability of housing. We call the District home, so it's inspiring to play a small part in the development of a more energy efficient city."

Skyline Innovations will continue to maintain and monitor the system. Through their program, energy savings for the community are guaranteed through a price-indexed discount on the energy produced by the system. The solar thermal installation at 3 Tree Flats will reduce the building's natural gas use by approximately 600 Mcf per year. Over the next decade, that amounts to a 4,500 Mcf reduction. In 2013, the Property Management Association of DC honored 3 Tree Flats with the PACE Award for "Best Green / Eco Friendly Community in DC," demonstrating that quality and practicality need not be sacrificed for affordability.



This report of the District of Columbia Sustainable Energy Utility covers the period from October 1, 2013, through December 31, 2013. This progress report contains information about the DCSEU's activity to date in FY 2014 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: Groundswell, Institute for Market Transformation, L.S. Caldwell & Associates, PEER Consultants, PES Group, Skyline Innovations, and Taurus Development Group.

1. At a Glance: Progress against Benchmarks

Table 1.Performance to date, measured against benchmarks and contract requirements¹

Category	ltem	Description	Metric Unit	Benchmark	Period	Year-to-	Benchmark
category	nem	Description		Minimum	Results	Date	Progress
	1a	Reduce per-capita consumption - Electricity	MWh	97,600	5,111	5,763	6%
	1b	Reduce per-capita consumption - Natural gas	Mcf	256,000	-4,437	-4,231	-2%
	2	Increase renewable energy generating capacity	Cost / kWh				
Performance	3	Reduce growth in peak demand	kW	2,000	696	810	41%
Benchmarks	4	Improve energy efficiency in low-income housing	% of annual budget	\$ 5,280,000	\$ 867,419	\$ 867,419	16%
Benchmarks	5	Reduce growth in energy demand of largest users					
	6	Increase number of green collar jobs ¹	Green job hours directly worked by DC residents, earning at least a Living Wage	146,432	15,995	27,043	18%
	7	Expenditure of annual SETF dollars allocated to DC SEU services	Fiscal year dollars	\$ 17,600,000	\$ 2,001,165	\$ 2,001,165	11%
	8	Expenditures with Certified Business Enterprises	Minimum expenditure for Certified Business Enterprises	\$ 2,950,000	\$ 330,431	\$ 330,431	11%
Minimum Requirements	9a	Annual expenditures related to electric energy efficiency	Program expenditures that reduce electrical energy consumption, allocated to sustainable energy activity	\$ 10,560,000	\$ 1,531,862	\$ 1,531,862	15%
	9b	Annual expenditures related to natural gas energy efficiency	Program expenditures that reduce natural gas consumption, allocated to sustainable energy activity	\$ 2,640,000	\$ 469,303	\$ 469,303	18%

¹ Period results are estimates subject to final verification of green job hours.

¹The 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).

Savings also include interactive effects across energy types. For example, an energy-efficient light bulb generates less heat than a standard, incandescent light bulb. Installing this energy-saving measure lowers the need for air conditioning in lighted spaces (that is, it lowers the summer cooling load), but it increases the winter heating load. Using the example of a customer who heats a space in the winter with natural gas and cools the space in summer with air conditioning: After installing energy-saving bulbs, that customer will experience an increase in gas use, but will also save electricity from the reductions in the lighting and cooling loads.

2. Core Area Performance

Table 2. Core area expenditures and energy savings, to date²

			Commercial		1
		Low-Income	and	Renewable	
	Residential	Multifamily	Institutional	Energy	Total
DCSEU Expenditures		· ·	•		
Expenditures for this quarter	\$ 448,33	7 \$ 533,409	\$ 698,881	\$ 320,538	\$ 2,001,165
Year-to-date expenditures	\$ 448,33	7 \$ 533,409	\$ 698,881	\$ 320,538	\$ 2,001,165
Annual budget estimates	\$ 3,700,00) \$ 3,520,000	\$ 8,780,000	\$ 1,600,000	\$ 17,600,000
Percent of the annual budget spent	129	5 15%	8%	20%	11%
Annual Savings, MWh					
Electricity savings (MWh) for quarter	3,58) 152	1,997	25	5,763
Year-to-date savings (MWh)	3,58) 152	1,997	25	5,763
Percent of annual MWh savings goal met	149	3%	4%	%	7%
Summer Peak Demand Savings1, kW					
Summer peak demand reduction (kW) for quarter	52	3 13	266	3	810
Year-to-date summer peak demand reduction (kW)	52	3 13	266	3	810
Percent of summer peak demand reduction goal met	869	5 10%	22%	14%	41%
Annual Savings, Mcf			•	•	
Natural gas savings (Mcf) for quarter	-448	3 266	i -14	0	-4231
Year-to-date savings (Mcf)	-448	3 266	-14	0	-4231
Percent of annual Mcf savings goal met	-139	1%	0%	0%	-2%
Lifetime Economic Benefit2					
Lifetime Economic Benefit for quarter	\$ 1,778,74	5 \$ 264,569	\$ 2,704,488	\$ 482,472	\$ 5,230,275
Year-to-date Lifetime Economic Benefit	\$ 1,778,74	5 \$ 264,569	\$ 2,704,488	\$ 482,472	\$ 5,230,275
Participants Served					
Participants served, for quarter	9,99	2 35	8	137	\$ 10,172
Year-to-date participants served	9,99	2 35	8	137	\$ 10,172

¹ Summer peak demand savingsrepresent the avoided electrical demand at the time of summer peak.

² Lifetime Economic Benefit is the present value of the avoided cost of energy over the life of installed efficiency measures.

²The DCSEU delivers market-based initiatives to serve District customer groups. Savings goals for core service areas are measured in megawatt-hours (MWh) for electricity consumption savings; kilowatts (kW) for reduced coincident demand (energy demand required by a given customer or class of customers during a particular time period), and thousand cubic feet (Mcf) for natural gas consumption savings.

3. Initiative Activity

Table 3. Initiative activity by sector³

			Quarterly Results			Year-to-Date R		
Sector	Initiative	Number of participants with installed measures	Annual customer cost savings		Number of participants with installed measures	cus	Annual tomer cost savings	
	Business Energy Rebates	-	\$	-	-	\$	-	
Commercial and Institutional	Commercial and Institutional Custom	6	\$	254,412	6	\$	254,412	
	T12 Market Transformation	2	\$	2,694	2	\$	2,694	
	T12 Replacement	-	\$	-	-	\$	-	
	Low-Income Comprehensive	35	\$	12,360	35	\$	12,360	
Low-Income Multifamily	Implementation Contractor Direct Installation	-	\$	15,356	-	\$	15,356	
	T12 Replacement	-	\$	-	-	\$	-	
	Retail Efficient Products	9,984	\$	389,744	9,984	\$	389,744	
Residential	Efficient Products Food Bank	-	\$	-	-	\$	-	
Residentia	Home Performance with ENERGY STAR	8	\$	2,130	8	\$	2,130	
	Federal Home Loan Bank Home Performance	-	\$	-	-	\$	-	
Renewable Energy	Solar Hot Water	130	\$	8,488	130	\$	8,488	
nellewable chergy	Solar Photovoltaic Systems	6	\$	2,709	6	\$	2,709	

Table 4. Project pipeline, by sector and initiative

Sector	Initiative	Estimated eletricity savings (MWh)	Estimated gas savings (Mcf)
	Business Energy Rebates ¹		
Commercial and Institutional	Commercial and Institutional Custom	20,293	42,882
	T12 Market Transformation	50	-
	T12 Replacement Direct Install		
	Low-Income Comprehensive	1,735	18,561
Low-Income Multifamily	Implementation Contractor Direct Installation ²		
	T12 Replacement		
	Retail Efficient Products ³		
Residential	Efficient Products Food Bank		
nesidentia	Home Performance with ENERGY STAR	-	-
	Federal Home Loan Bank Home Performance		
Renewable Energy	Solar Hot Water	68	1,480
Nenewable chergy	Solar Photovoltaic Systems	440	-

¹ Electricity and natural gas savings for Business Energy Rebates are provided for completed rebate projects.

² The Implementaion Contractor Direct Installation, T12 Replacement, and Solar Photovoltaic Systems initiatives are not adding projects at this time.

³ 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. The Federal Home Loan Bank Home Bank Home Performance initiative is inactive until January 1, 2014.

³ For a list of FY 2013 initiatives, please see **Table 6. DCSEU initiatives, by sector**.

Energy Efficiency Measures	Business Energy Rebates	Commercial and Institutional Custom	T12 Market Transformation	T12 Replacement	Low-Income Comprehensive	Implementation Contractor Direct Installation	Low-Income Multifamily T12 Replacement		Products	Home Performance with ENERGY STAR	Federal Home Loan Bank Home Performance	Solar Hot Water	Solar Photovoltaic Systems	Total
Air conditioning efficiency		1			36									36
Cooking and laundry					72			55						127
Hot water efficiency						690								690
Hot water replacement					36									36
Light bulb /ILamp			29			1,829		59,289						61,118
Lighting efficiency / controls		354												-
Lighting hardwired fixture		354	126		96									96
Motor controls		15												-
Motors		1												-
Office equipment														-
Other			7			244				2				246
Other fuel switch													6	6
Refrigeration					36			48						84
Renewables												1		1
Space heat efficiency					36					6				42
Space heat fuel switch														-
Space heat replacement					36									36
Thermal shell					6					11				17
Ventilation					36									36
Total	-	725	162	-	390	2,763	-	59,392	-	19	-	1	6	63,458

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

4. FY 2014 First Quarter in Review

This fall, the DCSEU closed the books on FY 2013 and, despite the shutdown of the U.S. government, made a smooth transition into FY 2014.

October was an exciting beginning to the fiscal year with the unveiling of the new DCSEU brand and the launch of the much-anticipated redesigned website. Built with an easy-to-use interface, the DCSEU website offers far more than program information and information on best practices to save energy and money. It also offers an interactive light bulb buying guide, electricity use guide, and home explorer tool.



In October, the Greater Washington Region Clean Cities Coalition (GWRCCC) and the Council of the District of Columbia recognized the DCSEU's work with a 2013 Public Outreach award and a ceremonial resolution. In addition, the DCSEU earned two mentions in the *Washington Post* and one in the *Express* daily.

In the first quarter, the DCSEU made significant progress in expanding the team of local staff members and cultivating staff talent. The DCSEU welcomed four new staff members who were hired in the fourth quarter of FY 2013 and celebrated five internal promotions. Members of the Account Management and Engineering teams attended Mastering Business Development training in October, and Energy Consultants participated in courses on boiler efficiency, advanced energy auditing, and building envelope offered by the Association of Energy Engineers in November.

Sales of efficient lighting—CFLs and LEDs—have continued to increase with the Efficient Products promotion. Starting on October 1, partnering retail stores began offering standard CFLs for \$0.99 and LEDs for as low as \$4.99. They also offered discounts for a wider array of LEDs. This increase in energy-efficient lighting sales has coincided with DCSEU earned media and social media promotion encouraging District residents to upgrade to CFLs and LEDs in preparation for the federally mandated phase-out of incandescent light bulbs starting January 1, 2014.

With a new brand, larger staff, and better rebates to customers, the DCSEU is in position to increase activity across all initiatives in 2014 to deliver greater electricity and gas savings, create more green jobs, and promote energy efficiency to wider audiences in every Ward.

5. Sector Highlights in the Core Areas

Residential Services

- Home Performance with ENERGY STAR. The DCSEU began offering FY 2014 Home Performance with ENERGY STAR incentives in November. DC homeowners are now eligible for a \$200 rebate on a home energy audit, and up to \$1,800 in incentives for qualifying home energy upgrades completed by Participating Contractors. Six homeowners in Wards 3, 4, 6, and 7 enrolled in Home Performance in the first quarter.
- New contractors. Two CBE firms, R. O. McMillan and Associates (ROMA) and Leone Tech, became new DCSEU Home Performance with ENERGY STAR Participating Contractors on Wednesday, October 30. Four CBE Participating Contractors now support the DCSEU Home Performance initiative.





DCSEU LED discount tags for Walmart and Safeway.

In-store lighting promotion. On October 1, the DCSEU began offering new pricing for ENERGY STAR-qualified CFLs and LEDs through in-store promotions. Standard CFLs are now available for \$0.99, and specialty CFLs are available for \$3.99. Through the DCSEU promotion, LEDs are available for as low as \$4.99 a bulb, a significant price reduction from 2012 store prices of \$15 to \$20. The DCSEU signed 25 memorandums of understanding with 11 manufacturers to begin the FY 2014 promotion in partnership with 50 retail locations throughout the District. Two of the 11 manufacturers, Cooper Lighting and Cree, are new to the DCSEU promotion. The DCSEU also welcomed the Goodwill of Greater Washington store as a new retail partner. Goodwill will offer standard CFLs for \$0.99 per bulb. Lighting sales are off to a strong start: more than 10,000 LEDs and 69,000 CFLs have sold since October 1. Higher sales are attributed to prominent light bulb displays in participating retail stores, lower pricing on CFLs, a greater selection of ENERGY STAR LEDs available through the promotion, earned media, and improved in-store marketing.

• Appliance rebates. The DCSEU is now offering standard (\$50) and premium (\$75) tier rebates for ENERGY STAR-qualified clothes washers and refrigerators. The ENERGY STAR label is a government-backed designation awarded to products that demonstrate superior energy efficiency. Since the DCSEU's launch of its appliance rebate program in January 2013, the majority of clothes washers and refrigerators stocked at DC appliance retailers are now ENERGY STAR-qualified. This shows that ENERGY STAR appliances are becoming the baseline for efficiency, in place of minimum federal standard efficiency levels. To provide incentives to the residential

market to purchase the most efficient appliances available, the DCSEU has adopted tiered rebate levels with higher incentives for the most efficient models. A complete list of qualifying appliances is available on the DCSEU website, <u>www.dcseu.com</u>.

Clothes washers

- The DCSEU offers a \$50 rebate for the purchase of new ENERGY STAR-qualified clothes washers that meet the Consortium for Energy Efficiency's (CEE) most rigorous (Tier 3) specifications.
- The DCSEU offers a \$75 premium rebate for clothes washers that meet CEE Tier 3 specifications as well as ENERGY STAR Most Efficient 2013 or Top Ten USA specifications.

Refrigerators

- The DCSEU offers a \$50 rebate for ENERGY STAR-qualified refrigerators that meet CEE mid-range (Tier 2) specifications.
- The DCSEU offers a \$75 rebate for refrigerators that meet CEE Tier 3 specifications or ENERGY STAR Most Efficient specifications.
- **Gas rebates.** On January 1, the DCSEU will issue a new version of the gas rebate forms. Rebates can now be paid to either the property owner or contractor. If the rebate is being paid to the contractor, the submitted invoice must show an instant discount on equipment (corresponding to the appropriate rebate amount) applied to the customer's purchase cost, up front.
 - Rebate amounts for all gas equipment, except boilers, will be reduced to \$100 - \$500 starting January 1, 2014. Previously rebates ranged from \$150 -\$850. The lower amounts will allow the DCSEU to offer rebates to a greater number of customers and to sustain the promotion through the FY 2014 fiscal year.
 - Market studies show that the majority of new furnaces available to District ratepayers are very efficient. Therefore, only furnaces that are ENERGY STAR qualified and have annual fuel utilization efficiency (AFUE) at or above 0.94 are eligible for a rebate.
- Quality Assurance contractor training. Three Participating Contractors attended DCSEU Home Performance training on November 25. The training for new contractors and new staff from current contractors involved appropriate methods for entering project information and reviewing energy savings, using HERO software and DCSEU Quality Assurance processes.

- Lighting demonstrations. The DCSEU provided lighting product information to more than 50 customers and Home Depot employees at an in-store lighting demonstration on November 26.
- **Coordination with Washington Gas.** The DCSEU coordinated with Washington Gas to highlight DCSEU gas rebates in their winter newsletter. Washington Gas customers can also learn about DCSEU rebates for efficient gas products through the recording that plays when customers are put on "hold" by the call center.
- **Customer satisfaction.** In mid-December, the DCSEU e-mailed customer satisfaction surveys to those who received LED, appliance, or gas rebates in FY 2013. In FY 2014, the DCSEU will send customer satisfaction surveys twice a month. Customer feedback will be used to adjust program planning and design.

Low-Income Multifamily

- Low-Income Comprehensive. The DCSEU has made minor adjustments to the Low-Income Comprehensive Checklist of common energy systems installed in new construction, substantial renovation, or redevelopment projects. The adjustments ensured consistency in messaging and formatted the checklist to align with the new DCSEU brand. The Checklist informs building owners not only about the systems they might consider installing, but also about the incentives they can receive for each energy efficiency measure. Custom incentives and technical assistance, always a feature of the DCSEU Low-Income Multifamily program, are still available for more complex systems.
- Low-Income Implementation Contractor Direct Installation (ICDI). The DCSEU held a contractor orientation on November 13 for the eight FY 2014 Participating Contractors. Project work began in November to provide energy-efficient CFLs, low-flow faucet aerators and showerheads, and water heater tank wraps to residents in more than 1,300 units. The target for FY 2014 is 3,000 units.
- ACEEE multifamily report. In November, the DCSEU reviewed the forthcoming American Council for an Energy-Efficient Economy (ACEEE) report, *Apartment Hunters: Programs Searching for Energy Savings in Multifamily Buildings*. The report, released to the public on December 2, features the DCSEU Low-Income Multifamily Comprehensive initiative as a case study. The ACEEE also featured the DCSEU in a presentation delivered at the Greenbuild conference in Philadelphia on November 21.
- **ICDI pilot.** In FY 2011, the ICDI initiative required that contractors request access from individual tenants to enter their units to install energy-efficient light bulbs, low-flow showerheads and faucet aerators, and water heater tank wraps. This

process was cumbersome and only 60% of eligible customers chose to participate. In FY 2012, the DCSEU revised its procedures to ensure that property managers or maintenance staff accompany contractors when they visit tenants and open, unoccupied units. As a result, 90% of tenants chose to have the efficiency measures installed. The DCSEU is establishing a pilot program to revisit properties that participated in the FY 2011 IDCI initiative to reach a greater number of tenants.

Renewable Energy

- **Solar PV.** In November, the DCSEU completed the installation and inspection of a 40 kW solar PV system at a low-income multifamily building in Southeast DC. This is the largest PV array to date for which the DCSEU has provided incentives.
- **Solar thermal.** The DCSEU inspected and confirmed the completion of a solar thermal project at a low-income multifamily building in the Ward 4 Petworth neighborhood in November.

Commercial and Institutional

- EM&V interviews. The Director of Account Management and the Manager of Engineering participated in an interview with the third-party EM&V contractor, Tetra Tech, on November 25 to provide information on program improvements and changes in FY 2014.
- **Customer feedback.** The DCSEU sent surveys to more than 50 Commercial and Institutional customers to assess the overall impact that the DCSEU has had with their organizations. This survey was different from the regularly circulated surveys evaluating how each project was handled. The 22 respondents indicated that the DCSEU delivers the highest amount of value in three areas: offering technical assistance, improving the customers' own energy efficiency efforts, and providing financial incentives. Along with the other project-specific surveys from FY 2013, the DCSEU is reviewing this new information to determine how to improve services in FY 2014.
- **Team training.** Twelve members of the Account Management and Energy Consultant teams participated in a professional business development training from October 23 to 25. Staff completed team building and communication exercises to enrich their customer engagement skills.
- **Team development.** The Engineering team attended courses in boiler efficiency, advanced energy auditing, and building envelope efficiency on November 4 and 18. These courses were led by the Association of Energy Engineers. The Manager of Engineering applied these courses toward her Certified Energy Manager re-

certification in November. A C&I Account Manager also earned Business Energy Professional certification in November.

- Gallaudet University. The DCSEU continued its support of Gallaudet University's energy efficiency efforts by facilitating better coordination between the Accounting and Facilities departments. The DCSEU helped the Facilities team devise a method for providing daily, weekly, and monthly forecasts of gas consumption to the Accounting team. These forecasts allow the Accounting team to prepare for upcoming expenditures prior to receiving their utility bills. They also encourage better communication about energy expenditures and savings goals.
- C&I Custom. In the first quarter, the DCSEU confirmed the completion of electricity savings projects that totaled 6% of the team's annual MWh savings goal (see Table 2, Core Area Performance). The team completed six projects in Ward 2 with chiller upgrades, variable frequency drives (VFDs), system optimization, and garage lighting.
- **Business Energy Rebates**. The Business Energy Rebate (BER) initiative received nearly 100 active reservation requests in the first quarter for measures such as energy-efficient lighting, refrigeration, and controls. The BER pre-approval form is available on the website for businesses to submit project information for review before they purchase equipment.
- **T12 Lighting Replacement initiative.** The T12 Lighting Replacement initiative currently has nearly 60 active projects and remains open for enrollment. It promotes the installation of energy-efficient T8 lighting in locations that continue to use inefficient T12 lighting, despite the nationwide phase-out of the older technology. The DCSEU will continue to provide an incentive of 70% of the total lighting replacement cost in FY 2014, significantly reducing the payback period for customers. Ten contractors selected through the first FY 2014 contract period completed the DCSEU program and compliance training on November 13.



• **Benchmarking Help Center.** In the first quarter, the Help Center assisted more than 90 building owners and managers in entering their building energy and water data into the EPA Portfolio Manager tool. The entry of these data is required under DC

law. After reporting their energy and water use data to the District Department of the Environment (DDOE), many large commercial customers with poor energy performance scores are contacting the DCSEU to clarify their understanding of the data and to obtain assistance. This has helped solidify the DCSEU's role as a trusted advisor for several C&I customers.

- Hospitality. Many large hotels in DC have embraced DCSEU technical advisory services and have applied for rebates for energy-efficient equipment. Representatives at Host Hotels have provided feedback to the DCSEU that they were pleased with the energy efficiency upgrades made at the Grand Hyatt and are encouraging their other hotels in the District to participate in DCSEU initiatives. New hospitality clients that began projects with the DCSEU in the first quarter are Fairfield Inn; Ritz-Carlton, Washington, DC; and the Renaissance Washington, DC Downtown Hotel.
- Universities. The DCSEU attended the DC College and University Sustainability Pledge (DC CUSP) meeting on November 14 to continue to build relationships with city universities. In November and December the DCSEU met with Catholic University and Georgetown University to discuss potential energy efficiency projects.
- Benchmarking hospitals. All hospitals in the District of Columbia have more than 50,000 square feet and are therefore required to submit energy and water data to DDOE under DC law. Benchmarking energy use is new to most hospitals, and it has been a challenge for the Help Center to reach the appropriate contact with these institutions to provide assistance. Working with DDOE, the DCSEU was able to coordinate an e-mail blast through the DC Hospital Association. Following the e-mail blast, two large hospitals reached out to the Help Center to request benchmarking assistance.

6. Activity Supporting DCSEU Programming

Advanced Technical Analysis Support

• **Technical support.** The Technical Analysis team supported custom projects in the first quarter for 8 interior and garage lighting retrofits, 8 solar PV installations, 2 boiler upgrades, 2 VFDs, 1 chiller, and 2 low-income comprehensive projects. In addition, the team provided the third-party EM&V contractor, Tetra Tech, with both the preliminary and final DCSEU savings verification database for FY 2013. All the necessary project files and documentation were uploaded to the Tetra Tech SharePoint site in November.

- Screening tools. The Technical Analysis team revised and updated Solar PV and Energy Efficiency screening tools in December to reflect the most recent Washington Gas and Pepco energy costs, discount rate, inflation rate, and adjusted 2014 costs.
- NEEP EM&V Forum. Energy efficiency programs in regulated environments need EM&V to substantiate the energy savings claimed from installed electricity and natural gas measures. To help ensure the accuracy of claimed savings, the DCSEU belongs to the Northeast Energy Efficiency Partnerships (NEEP), an organization that advocates for and shares information related to energy efficiency. NEEP operates a regional program for energy savings claim protocols, the EM&V Forum. The Forum supports common protocols to evaluate, measure, verify, and report the savings, costs, and greenhouse gas emission impacts of energy efficiency. These activities were coordinated with DDOE and the 10 NEEP Forum sponsoring states.

The Technical Analysis team provided technical support and review in the following NEEP categories in the first quarter:

- Mid-Atlantic Technical Reference Manual (TRM)
- Regional cost-effectiveness
- Residential lighting strategy
- Remaining useful life of equipment
- Regional Energy Efficiency Database (REED)
- Retail lighting market lift pilot
- **Development of new TRM measures.** The Technical Analysis team continued development of the following measures for FY 2014:
 - Pin-based directional LEDs
 - Interior fluorescent fixtures
 - Exterior fluorescent fixtures
 - Solid-state (LED) recessed down lights
 - Solid-state (LED) fixtures
- Approved characterizations. The Technical Analysis team conducted research and preliminary screening to add a higher efficiency tier for the current natural gas boiler measure in the *TRM User Manual*. Preliminary assessments showed that boilers with 90+ AFUE did not screen for cost-effectiveness because of the high incremental costs for the equipment. Lower efficiency natural gas furnace measures were removed from the KITT database in December. The *FY 2013 Savings Verification TRM User Manual* was reviewed, completed, and submitted to Tetra Tech on November 18.

Table 6. Summar	of 2013 TRM activitie	S
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DC SEU 2013 TRM Updates	Porfolio #	Summary
COMMERCIAL & INSTITUTIONAL MARKET SECTOR		
· Commercial Reach-In Refrigerators and Freezers		New Measure
Commercial Coin Operated Efficient Clothes Washer		New Measure
 Solid State Lighting (LED) Lighting Systems 		Update (Baseline Wattages, EISA Adjustments, Incremental Costs)
Condensing Gas Furnace		New Measure
Condensing Gas Boiler		New Measure
EFFICIENT PRODUCTS PROGRAM	3	
ENERGY STAR Integrated Screw Based SSL (LED) Lamp		New Measure
Efficient Clothes Washer		New Measure
Efficient Refrigerator		New Measure
RESIDENTIAL MARKET SECTOR		
ENERGY STAR Refrigerator Retrofit		Update (Demand Savings kW, lifetime, Incremental Cost)
RESIDENTIAL GAS PROGRAM		
High Efficiency Gas Furnace		New Measure
 High Efficiency Gas Boiler 	4	New Measure
 High Efficiency Gas Water Heater 		New Measure
COMMERCIAL & INSTITUTIONAL MARKET SECTOR		
Unitary and Split Air Conditioning		New Measure
Water Source Heat Pumps	5	New Measure
RESIDENTIAL PROGRAM		
COMMERCIAL & INSTITUTIONAL MARKET SECTOR		
C&I CFL	6	Mid Atlantic TRM Update (HOU & ISR)
RESIDENTIAL PROGRAM		
RES CFL	6	Mid Atlantic TRM Update (HOU & ISR)
COMMERCIAL & INSTITUTIONAL MARKET SECTOR		
Water Conservation	7	New Measure
COMMERCIAL & INSTITUTIONAL MARKET SECTOR		
T12 Lighting Equipment Replacement Program	8	Updated Products Table

Public Affairs

- **DC Smile Project.** On October 5, the DCSEU sponsored the DC Smile Project community festival, organized by Broccoli City, in coordination with DDOE and the Office of the Mayor. The DCSEU staffed an exhibit at the event, which raises awareness of clean energy for multicultural communities. It was attended by an estimated 2,500 guests. A 2014 DCSEU community event is being planned for April.
- Alliance to Save Energy (ASE). This organization promotes energy efficiency worldwide to "achieve a healthier economy, a cleaner environment, and greater energy security." The DCSEU participated in the ASE Great American Energy Day on November 20. The DCSEU will design a case study to be considered by ASE as a presentation for the Energy Efficiency Global Forum 2014 on May 20 in DC.
- **GWRCCC award.** The Greater Washington Region Clean Cities Coalition held its first annual awards luncheon on October 31. The DCSEU was presented with the Community Outreach Award for its work in preventing greenhouse gas emissions, bringing renewable energy to low-income District residents, and connecting with the public.

- Association of Energy Services Professionals. In support of the DCSEU Solar PV initiative, the Public Affairs group is drafting a paper discussing the FY 2012 and FY 2013 solar installations for income-qualified homeowners in Wards 5, 7, and 8. This paper, if selected for presentation, will be delivered at the Association of Energy Services Professionals annual meeting in San Diego, California, in May 2014.
- Council of Governments. The DCSEU attended the Metropolitan Washington Council of Governments (MWCOG) Annual Board Luncheon and Symposium on December 11 for a discussion led by Bruce Katz of the Brookings Institution on "Shaping Our Regional Economy." Sustainability, job creation, and economic development were cited as keys to growth and staying competitive. On December 19, the DCSEU attended the COG Climate, Energy, and Environmental Policy Committee meeting. The DCSEU's Benchmarking Help Center was discussed in conjunction with DDOE's new benchmarking requirements.

Information Technology

• **Compliance tracking.** The Information Technology team implemented a database and reporting process in the first quarter to collect and manage compliance data until the DCSEU contracts with a new workforce compliance firm. The new data submission tool streamlined the submission process for contractors; the new reporting tool automates a large portion of the reporting process, improving accuracy and appearance. Using these new tools and processes, all data processing is now digital, from collection through delivery. The DCSEU received feedback that the new form was much easier to complete and vastly improved the contractors' ability to effectively report their data.

Public Relations

- *Washington Post.* The DCSEU had earned media mentions in the *Washington Post* "Your December home improvement checklist" and "LED bulbs: We test the new products to find out who has the bright stuff" articles on December 4 and 19. Both articles were printed in the *Washington Post* paper and posted to the website. On December 27 the DCSEU was featured in an *Express* article, "To: You. From: Your savvy renter self," in print and online. The *Washington Post* has the fourth largest print circulation in the United States with average weekday circulation of 475,000. The *Express* reaches an estimated 240,000 readers each day in print.
- Energy publications. Independent energy news provider Platts featured the DCSEU in its December issue of *Energy Economist*, in its *Letter from Washington* column. The *Energy Economist* reaches utility executives, policy makers, economists, and financial brokers in North America, Asia, Latin America, Europe, and the Middle East each month. On December 3, the DCSEU headlined the weekly *Energy Efficiency*

Markets newsletter with an article titled, "How Washington, D.C. is Overcoming the Great Energy Efficiency Dilemma." The article is also available on <u>www.energyefficiencymarkets.com</u>.

- Hospitality sector news. *Green Lodging News*, a hospitality industry blog, published a story about the energy upgrade completed at the Hotel Monaco, a Kimpton property. The article cited the DCSEU as one of the primary factors that helped the hotel reduce its utility costs by 48%. The story was also posted on *Restaurant News Resource*.
- **Brand launch event.** The DCSEU hosted an event for more than 100 attendees at Meridian Pint restaurant on November 14 to familiarize customers, city agencies, partnering organizations, and contractors with the new brand. The DCSEU unveiled its FY 2013 year-end video and distributed copies of the *FY 2013 Annual Report*.
- Press release. On November 5, the DCSEU publicized its FY 2013 results in a press release that was shared with more than 1,000 local and national media outlets. The release was published by the PR Web newswire and referenced in articles in *Fierce Energy, Life Is Green,* and the *Examiner*. The release also highlighted the DC City Council resolution, passed in October and officially presented on November 5, in honor of the DCSEU's service to District residents and businesses.
- **Region Forward.** The Metropolitan Washington Council of Governments (MWCOG) blog, Region Forward, featured the DCSEU in its regional roundup of renewable energy stories in November. The post, *Solar Power Initiatives Making D.C. Region More Sustainable*, referred to the DCSEU solar thermal ribbon-cutting event that took place on October 4 with Councilmembers Kenyan McDuffie and David Grosso.
- Public service announcements. Over the summer, the DCSEU wrote three public service announcements (PSAs) and recorded and produced two for local radio stations. The PSAs continued to air in November and December on Radio One stations: WKYS 93.9 FM, WOL 1450 AM, WYCB 1340 AM, Majic 102.3 FM, and WRPS 104.1 FM as well as WAMU 88.5 FM. The recorded PSA is in rotation on WTOP 103.5 FM and Clear Channel stations WASH 97.1 FM, WBIG-FM 100.3, WITH 99.5 FM, WMZQ-FM 98.7, and 101.1 WWDC FM.



DCSEU (I and r) with Mike Healy of Skyline Innovations, Ward 5 Councilmember Kenyan McDuffie, and Taresa Lawrence of DDOE at the October 4 solar thermal ribbon-cutting

NBC 4 coverage. The DCSEU co-hosted a solar thermal ribbon-cutting event on October 4 with Skyline Innovations. Councilmembers Kenyan McDuffie and David Grosso toured the solar thermal installation at 1 Hawaii Avenue NE before the ribbon-cutting ceremony, where DDOE and Department of Consumer and Regulatory Affairs (DCRA) officials spoke

alongside DCSEU Managing Director Ted Trabue and Mike Healy of Skyline Innovations. NBC 4 evening and night news broadcasts contained footage from the event.

Community Outreach

- ANC meetings. As part of its work to connect with customers through local Advisory Neighborhood Commissioner (ANC) meetings, the DCSEU made presentations at the October ANC 5D and ANC 2A1, the November ANC 6A, and the December ANC 2E, ANC 2F, ANC 1B, and ANC 3B meetings.
- **Columbia Heights Day.** The DCSEU staffed an exhibit at the Columbia Heights Day neighborhood fair on October 5. The fair was attended by an estimated 1,000 people, mostly from Ward 1.
- Office building events. The DCSEU increased its presence at office building fairs this fall. These outreach events generally take place in the lobbies of large corporate office buildings at break times. Workers from all companies within the building were encouraged to attend. The DCSEU exhibited at the CBRE building on October 23 and at the Mi Casa Verde Exhibit at the Inter-American Development Bank on October 24.
- Office of the People's Counsel. The DCSEU made a presentation at the Office of the People's Counsel, at its "Making Energy Efficiency and Renewable Energy Real for People" workshop on October 12.
- Mayor's Office of Neighborhood Engagement. The Mayor's Office of Neighborhood Engagement is composed of 13 Ward Liaisons who respond to community needs. The DCSEU met with Ward Liaisons on November 19 to share information about DCSEU initiatives and determine strategies for how the DCSEU can reach more District residents through its community outreach efforts. The liaisons helped to facilitate meetings with property owners, ANCs, civic associations, and business alliances.



DCSEU staff share information about DCSEU initiatives that the Annual Senior Holiday Celebration.

• Aging and Disability Resource Centers. The DCSEU met with representatives from Seabury, the Ward 6 Aging and Disability Resource Center, on November 21 to schedule energy efficiency workshops for senior homeowners. The DCSEU also offered an energy efficiency workshop at the Annual Senior Holiday Celebration on December 19. Moving forward, the DCSEU is going to provide Energy Efficiency Workshops to seniors at six of the Seabury sites in Ward 6 in FY 2014.

• **Community events.** The DCSEU made presentations at the Green Neighbors Green Neighborhoods event on November 17, the Congress Heights Civic Association meeting on November 18, and the Anacostia Coordinating Council on November 26.

 Hillcrest Day. Hillcrest Day in Southeast DC is a community festival with vendor tables and entertainment. The DCSEU staffed an exhibit at this year's festival on October 19, which drew an estimated 80 attendees.



The DCSEU with Councilmember Jack Evans Ward 2, at Hillcrest Day.



Figure 1. DCSEU website visits and page views, by month, FY 2013 and 2014 to date

٠	December website visits	4,711	
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- Facebook **214 Likes**
- Twitter 605 Followers
- Website traffic. Website traffic continued to be strong through the first quarter. Typically, October through December are the months with the lowest average website traffic. In December, 7.9% of all website traffic was from washingtonpost.com as a result of earned media.



- New brand. The Marketing Group launched the DCSEU's new brand, which features a new logo, brand colors, and brand guidelines to ensure brand consistency across the DCSEU's scope of work. Along with the brand, the group has produced numerous new marketing materials, from t-shirts, lanyards, and business cards to items for the DCSEU's Community Engagement team to use at events. Following the launch of the new DCSEU brand and website, the Marketing Group assisted with the brand launch event on November 14. At the celebration, the group unveiled *Making an Impact*, a year-in-review video that highlights DCSEU accomplishments and FY 2013 customers. The video can be found on the DCSEU YouTube page: www.youtube.com/dcseu.
- Website. The DCSEU completed the writing and development work for the website re-design in October, and launched the new DCSEU website on October 29. The Marketing Group worked with two District companies to design the site and produce the interactive map to help users identify projects throughout the city. The new site features:
 - A more user-friendly navigation
 - An interactive light bulb buying guide, electricity use guide, and home explorer tool
 - o Photography that features District residents and landmarks
 - Real stories from residential and business customers who have saved energy with the DCSEU
- Supporting initiatives. The Marketing Group designed in-store displays and point-of-purchase marketing materials in the first quarter for the Enlighten DC campaign promoting Efficient Products. The group also created all new materials for the ICDI initiative: project forms, tenant education flyers, and a contractor checklist of installed efficiency measures. These materials



installed Find energy savings opportunities in your home with the DCSEU.com Home Explorer Tool.

were printed and made available to contractors in December.

• **Brand campaign.** The Marketing Group is currently planning a combined residential and brand marketing campaign that is scheduled to run from February through June 2014. The group researched print, digital, and outdoor advertising to raise the new brand's profile and promote DCSEU services to residents and business owners throughout the District. This research revealed that the costs of outdoor advertising

are high and rising, because of the upcoming local elections. Using this information, the Marketing Group is exploring new ways to advertise.

 Advertising. Digital advertising has driven a number of DC residents to the DCSEU website. Drawing from the increase in website traffic in FY 2013 from digital advertising, the DCSEU renewed digital ads in the first quarter.



DCSEU digital ads on the Prince of Petworth blog have increased website traffic.

Workforce Compliance

- New compliance processes. The DCSEU received nine responses to a request for proposals seeking a qualified firm to provide workforce compliance and contract support services in the first quarter. The responses are undergoing review and a contractor will be selected by January.
- **Compliance training.** The DCSEU workforce compliance team trained contractors and subcontractors on compliance processes at the November 13 training.

Workforce Development

• **Green Future Fellowships.** Three interns were hired as commercial and institutional, public affairs, and communications and marketing fellows in October. All of the fellows will participate in professional development training during their yearlong tenure with the DCSEU.

Administrative Requirements

• Annual Report. The FY 2013 Annual Report was distributed at the November 14 brand launch event and is available on the DCSEU website in the About Us section. A brochure of FY 2013 highlights is in development by the Marketing Group and will be completed by the end of January.

Table 7. DCSEU positions, by Ward

Job Title	Ward 1	Ward 2	Ward 3	Ward 4	Ward 5	Ward 6	Ward 7	Ward 8	Total
Assistants									
(administrative, project, and									
program)	2	1	1	3					7
Associates									
(initiative, project, and program)									0
Interns									0
Specialists									
(energy, IT, and customer support)			3	3	1				7
Managers									
(account, initatitive, and									
program)	3	2		1	3	5	1		15
Coordinators									
(project and administrative)	1		2		2	2		1	8
Advisors and Researchers									0
Directors									
(compliance, managing,									
operations)				2	1	1			4
Cumulative total positions, by									
Ward	6	3	6	9	7	8	1	1	41

Table 8. DCSEU initiatives, by sector

Sector	Initiative Name	Description	Customer	Status
	Efficient Products	Deep discounts on CFLs with partnering retailers in DC; mail-in rebates for qualifying energy-efficient appliances	DC residents	On track
	Efficient Products at Food Banks	CFLs offered at no charge for patrons of food banks	DC residents meeting income requirements	On track
Residential	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
	Federal Home Loan for Home Performance with ENERGY STAR	100% forgivable loans for household improvements made through the Home Performance with ENERGY STAR program	DC single-family homeowners meeting income requirements	Inactive until January 1, 2014
Low- Income Multifamily	Low-Income Multifamily Comprehensive	Custom technical and financial assistance for energy efficiency improvements for multifamily properties	Property owners of multifamily buildings serving DC residents meeting income requirements	On track

Sector	Initiative Name	Description	Customer	Status
	Low-Income Implementation Contractor Direct Installation	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 serving DC residents meeting income requirements	On track
	Solar Photovoltaic (PV)	Incentives and financing to install solar PV systems	DC single-family homeowners meeting income requirements	Inactive
Renewable Energy	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
	Business Energy Rebates	Rebates for energy-efficient lighting, heating, refrigeration, cooking, and other qualifying equipment	Business owners	On track
Commercial	T12 Lighting Replacement	Incentives for customers to re-lamp and re-ballast existing T12 fixtures with high-performance T8 lamps and ballasts	Business owners	On track
and Institutional	Benchmarking Help Center	Guidance on benchmarking energy and water use in the EPA Portfolio Manager tool to report to the District Department of the Environment	Building owners and property managers	On track
	Commercial and Institutional Custom	Technical assistance, account management, and financial incentives for energy efficiency projects	Large commercial and institutional customers	On Track