# The Annual Report 2014

CHINATOWN PETWORTH BROOKLAND TRINIDAD SKYLAND SHAW



SUSTAINABLE ENERGY DC UTILITY



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# The Annual Report 2014



# **2014 HIGHLIGHTS**

# \$105 MILLION

IN LIFETIME ENERGY COST SAVINGS FOR DCSEU CUSTOMERS

60,000\{\gamma}\]
IN ELECTRICITY SAVINGS

REDUCED 8,620 GROWTH in peak demand by

47,000 households served

\$2,585,000 in lifetime ENERGY COST SAVINGS from renewable energy installations 110 MILLION CO, EMISSIONS PREVENTED

134,000 gin natural gas savings

82 H

JOBS

DISTRICT
RESIDENTS

\$**6,100,000** INVESTED

in low-income services

spent with DISTRICT-BASED CBES

# A MESSAGE from the Managing Director

In the DCSEU's report for FY 2013, we celebrated our role in creating a brighter future for the District of Columbia—a brighter future in terms of the District's economy, natural environment, and energy efficiency in buildings. In FY 2014, we were pleased to see that future take shape. In the past 12 months, the DCSEU has set a solid course for meeting the demands of a flourishing DC and contributing to a reduction in overall energy consumption even as the City's population has grown. In FY 2014, the DCSEU met or exceeded the minimum requirements for more of its performance benchmarks than in any previous fiscal year, and with our success comes exceptional benefits to ratepayers. The District's utility ratepayers' investment of \$18 million in energy efficiency and renewable energy will provide \$105 million in lifetime savings to

Together, we saved more than 134,000 thousand cubic feet (Mcf) of natural gas this year—enough to heat the Tenley-Friendship Neighborhood Library for more than 100 years.¹ We also saved more than 60,000 megawatt-hours (MWh) of electricity—enough to power more than 7,000 homes in DC for one year. In total, our work removed more than 110 million pounds of CO<sub>2</sub> this year, the equivalent of the greenhouse gas emissions from 10,500 passenger vehicles. The DCSEU continued to serve District residents with over \$4 million spent in the City's low-income communities. Over \$4.2 million was spent with local Certified Business Enterprises (CBEs), showing our continued commitment to contributing meaningfully to the local economy. Finally, in FY 2014, the DCSEU created more green jobs than ever before—we supplied 82 full-time equivalent (FTE) jobs for District residents.

The DCSEU is proud to represent DC in everything it does. What started in 2011 as an innovative resource for District ratepayers has matured into a model for other cities seeking to realize the environmental, social, and economic benefits of energy efficiency and a strong green economy. In just one year, the District moved up nine places in overall rankings in the 2014 State Energy Efficiency Scorecard of the American Council for an Energy-Efficient Economy (ACEEE).<sup>2</sup> This achievement makes Washington, DC, one of the most improved states in the country, a distinction credited in part to the DCSEU's work. Further, the results of the DCSEU are being showcased around the country. I spoke on this very subject at the 2014 Greenbuild International Conference and Expo in New Orleans, the world's largest conference and expo dedicated to green building.

Power isn't everything; it's how you use it that makes a difference. Energy efficiency empowers the District by stabilizing energy costs, creating jobs, stimulating economic growth, and reducing carbon emissions. As we embark on FY 2015, we look forward to measuring our success in terms of the energy savings of our customers and our commitment to everyone living and working in the District. Though our progress is measured by year, the numbers highlighted in this report will have a significant impact beyond FY 2014, and our customers will benefit from savings for years to come.

<sup>&</sup>lt;sup>1</sup> http://www.buildsmartdc.com/building/842161.

<sup>&</sup>lt;sup>2</sup> http://www.aceee.org/state-policy/scorecard.

MORE COMFORTABLE .....

# HOMES THATSAVE DC RESIDENTS MONEY





# RESIDENTIAL

With each passing month, an increasing number of individuals and families arrive in the District. In its third full year of operation, the DCSEU's initiatives for residential buildings have expanded to meet the needs of the growing market. These offerings have ranged from more rebates on efficient equipment and the latest LED technology for homes, to higher incentives for whole-home energy audits and upgrades. In FY 2014, the DCSEU doubled the number of Participating Contractors qualified to carry out residential initiatives. The DCSEU now has even more partnerships with retailers across the City's eight Wards, and the number of residents taking advantage of rebates for whole-home energy audits through the Home Performance with ENERGY STAR® initiative has reached a new high. The DCSEU now offers more rebates for a wider variety of highefficiency lighting, appliances, and heating and cooling equipment than it did in FY 2013. As a result of this and increased visibility in the community, more than 414,000 efficient light bulbs and appliances were sold through participating retailers this year—an increase of more than 83 percent over FY 2013. With more opportunities to save energy and money, District residents are finding it easier than ever to take advantage of DCSEU services to reduce energy costs.



53 PARTICIPATING
RETAILERS
with locations in all 8 Wards

414,000 efficient products sold

\$175404 IN ENERGY EFFICIENCY MEASURES

INSTALLED

for income-qualified single family homeowners

\$2.4 MILLION ANNUAL ENERGY SAVINGS

## **ENERGY SAVINGS**

# Right Around the Corner

District residents can reduce their energy use by replacing incandescent and halogen light bulbs with high-efficiency CFL and LED bulbs. In FY 2014, the DCSEU partnered with 53 retailers, covering all of the City's Wards, to buy down customers' costs of energy-efficient lighting. This is an easy way for residents to reduce energy costs. This year, District residents brought home more than 413,000 LEDs and CFLs from DCSEU retail partners, with associated home energy cost savings of \$2.3 million annually.

Yes! Organic Market is a local grocer offering fresh, natural, and organic foods in six locations across the District. In some cases, Yes! Organic is the only health- and sustainability-conscious grocery store in the neighborhood, serving a diverse customer base composed of homeowners and renters of all ages and income levels. In FY 2014, Yes! Organic decided to have all six of its DC stores participate—up from three stores in FY 2013—to ensure that all of its customers have access to affordable efficient lighting.

A number of residents in these underserved areas are price-conscious but want—and deserve—to have the same quality choices as residents of other neighborhoods. By partnering with the DCSEU to offer discounted light bulbs that are high quality and energy efficient, we're able to help our customers make smart decisions that help them save both energy and money.

—Elizabeth England, Marketing Manager, Yes! Organic Market



# Turning a House into A COMFORTABLE HOME

When Brad Wible and his wife Jillian bought their first home in early 2014, they knew that the 70-year-old Takoma neighborhood house had old systems that would need replacing. As first-time parents, they prioritized making their new home as comfortable as possible. They did their research and found what they were looking for in the DCSEU Home Performance with ENERGY STAR initiative, which offers homeowners up to \$1,800 to improve the energy efficiency of their homes. The Wibles worked with a local contractor to air seal and insulate their home and also received a DCSEU rebate for installing a new high-efficiency water heater and furnace. They will realize first-year savings of more than \$230.

Energy efficiency was certainly on our minds from the get-go.
Once we realized we could get help from the DCSEU, it was a no-brainer.

—Brad Wible, homeowner 66

My level of home comfort has increased 110%, and I've already started seeing energy savings

# **CHANGING A LIFE**

# with a Lifetime of Energy Savings

The Income-Qualified Services initiative was a new DCSEU offering in FY 2014, providing major home energy improvements such as air and duct sealing, insulation, and heating system upgrades. In the spring, homeowner Katina Jordan received the efficiency measures she had been waiting for: air sealing, a high-efficiency furnace, and an efficient water heater. She also received new windows, a new door, carbon monoxide detectors, a new rear door, repairs to her front door threshold, and a new gas-powered clothes dryer.

Katina's home improvements will provide energy savings of \$4,200 across the lifetime of these installations, and they will also add comfort to her home. These improvements have inspired behavior changes that save energy, too. Katina reports taking shorter showers, being more diligent about switching off lights and television sets, and leaving her thermostat in "sleep" mode when she is not at home.

My level of home comfort has increased 110%, and I've already started seeing energy savings. This means the world to me because now I can save money on my bills. I'm really thankful for the DCSEU.

–Katina Jordan, homeowner





# LOW-INCOME MULTIFAMILY INITIATIVES

When it comes to preserving affordable housing, investing in energy efficiency reduces the highest controllable operating costs for building owners and property managers. The DCSEU offers technical assistance and financial incentives to developers and property managers who and financial incentives to developers and measures when building or incorporate energy-efficient systems and measures when building or rehabilitating affordable housing in the District. These services can reduce rehabilitating affordable housing in the District. These services can reduce and owners and residents. Incentives to invest in energy-efficient costs for both owners and residents. Incentives to invest in energy-efficient systems and equipment encourage decision makers to go well beyond code requirements, improving the quality of living and home comfort for code requirements, improving the quality of living and home comfort for those who call these buildings home.

The DCSEU has gained recognition for its role in preserving the District's affordable housing. In FY 2014, the DCSEU was named Best Housing Partner by the Housing Association of Nonprofit Developers (HAND), an organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing Norganization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to increasing the supply of affordable housing organization dedicated to in



AFFORDABLE HOUSING THROUGH ENERGY EFFICIENCY

# 5,245 LOW-INCOME UNITS SERVED

\$9.9 MILLION

in lifetime energy cost savings

**16 MILLION** 

gallons of water saved

\$228.80 AVERAGE ANNUAL SAVINGS PER UNIT

# SUSTAINABLE ENERGY FOR DC RESIDENTS Who Need It Most

The DCSEU partners with So Others Might Eat (SOME), a community-based organization that offers comprehensive services to help financially vulnerable and homeless residents at each point of their journey from homelessness to independence. Affordable housing is a crucial part of this journey for many. This is why it was important for SOME to reduce costs and make investments that will pay them back in the long term, allowing the organization to serve as many residents as possible.

SOME has looked to the DCSEU since FY 2011 to provide custom technical and financial assistance for more than 30 of the organization's properties. In FY 2014, Marian's House—home to 43 income-qualified and formerly homeless families—was one such property. Its residents now benefit from more than 350 installations of energy-efficient products and equipment: LEDs and CFLs, clothes washers, a high-efficiency HVAC system, exhaust fans, insulation, air sealing, and solar thermal panels for hot water. The estimated annual savings for SOME is more than \$20,000.



66 Developing affordable housing that is financially and environmentally sustainable enables SOME to fulfill our commitment to excellent stewardship. We are pleased to partner with the DCSEU, whose expertise and incentive financing have made Marian's House and other SOME properties as sustainable as possible.

—Troy Swanda, Housing Development Director, SOME



# Developing affordable housing that is financially and environmentally sustainable enables SOME to fulfill our commitment to excellent stewardship

"

# SOLAR ENERGY



# RENEWABLE ENERGY

District homeowners and owners of multifamily buildings have taken advantage of DCSEU renewable energy initiatives since 2012, when the first small-scale solar installations were completed in Wards 7 and 8. To date, the DCSEU has installed 28 percent of the City's renewable energy generating capacity. Solar installations for income-qualified residents reduce energy costs, allowing more funds for other household needs.

When installed on the roofs of affordable multifamily buildings, these systems help stabilize energy costs for property managers and building owners, keeping rents more affordable. As word spreads about the benefits of solar energy, the DCSEU helps bring the District closer to meeting one of Sustainable DC's goals: to increase the City's renewable energy-generating capacity from 2012 levels by 50% percent by 2032.

In FY 2014, the DCSEU also incorporated educational outreach programs to provide solar customers with information on using energy more efficiently in their homes. The DCSEU provided weatherization and other services to these homes, creating a more comprehensive approach to increasing the impact of the solar projects.

# Setting a New Standard for MULTIFAMILY SOLAR ENERGY When solar generating systems are installed on afformultifamily buildings, the energy not used from the or for natural gas lowers operating costs, helping to

When solar generating systems are installed on affordable multifamily buildings, the energy not used from the electric grid or for natural gas lowers operating costs, helping to maintain affordable rents for residents. When installed across a housing organization's multiple buildings, solar systems have an even larger effect on the City's economy and on the preservation of affordable housing. The National Housing Trust / Enterprise Preservation Corporation (NHT / Enterprise), a partnership between a national nonprofit engaged in housing preservation and a real estate investment services company for the affordable housing community, has such a portfolio. Starting with 11 of NHT's multifamily affordable buildings in Washington, DC, NHT / Enterprise worked with the DCSEU to begin the largest solar installation across multiple properties in the city. This approach has become a model for building developers and property managers across the country.

The NHT / Enterprise venture has installed and is continuing to install solar thermal panels for hot water and photovoltaic systems for space heat and other electricity uses. The systems will reduce operating expenses by over \$27,500 per year, save 1,500 Mcf per year, and offset more than 100,000 kWh from the electrical utility grid. These reductions mean NHT will have more funds available to continue its mission-related delivery of services that foster strong communities and increase the quality of living experience for residents. NHT / Enterprise will continue to work with the DCSEU as the organization installs more solar panels on approximately 20 buildings in the next two years.

Sustainability allows NHT to make our properties run more efficiently, preserve affordable rents, and maintain resident services such as tutoring programs and financial education.

**—Jared Lang**Sustainable Development Manager, NHT

# An Opportunity FOR THE WHOLE COMMUNITY

District residents living on modest incomes can lower their energy costs through the DCSEU's Low-Income Solar Photovoltaic initiative. In the Southern Homes and Gardens Cooperative community, 55 of its 90 households received solar PV installations on their homes in FY 2014. Telana Felder, the onsite manager and a shareholder at the cooperative, has reduced her annual costs by nearly \$340, and approximately 3,000 kWh from the electric utility's supply are now being offset by the production from the installed PV panels.

As the savings add up, Ms. Felder is expected to save more than \$9,700 over the life of the system.

I have seen tremendous savings on my bill, and I am so happy for my solar panels. I've talked to quite a few residents who have also seen a change on their bills, and not one has a bad thing to say about the panels.

### -Telana Felder

Onsite manager and shareholder, Southern Homes and Gardens Cooperative

# \$2,585,967 gilled ENERGY COST SAVINGS from RENEWABLE ENERGY INSTALLATIONS

28% of the District's RENEWABLE ENERGY GENERATING CAPACITY

# **114** TOTAL PROJECTS





3,135.74 in natural gas savings

**105** SOLAR PV INSTALLATIONS for income-qualified homeowners

PROVIDED WITH SOLAR ENERGY
(solar thermal systems, solar PV systems, and solar PV households)

The DCSEU is a

# TRUSTED ENERGY ADVISOR

for DC BUSINESSES

# COMMERCIAL AND INSTITUTIONAL

The buildings used by companies, organizations, and institutions account for nearly 70 percent of the District's energy use. Especially for the largest energy users in the District, the DCSEU offers support and personalized technical assistance through its Commercial and Institutional Custom initiative. DCSEU initiatives help District businesses achieve their long-term energy goals and improve building function—whether that means improved comfort for occupants or more effectively controlled HVAC systems. The DCSEU is a trusted and unbiased energy advisor, helping to bring stakeholders together to recognize and address sustainability goals and priorities. For example, the District's JW Marriott has worked and continues to work with the DCSEU to meet ambitious corporate sustainability goals. In its annual recognition of outstanding energy efficiency work by businesses, the Northeast Energy Efficiency Partnerships (NEEP) gave the hotel a 2014 Business Leader for Energy Efficiency award.

The District is also home to more than 60,000 independent businesses. Often operated from homes or small buildings, 12 percent of these businesses are in buildings with floor space of less than 10,000 square feet. To serve this important pillar of the District's economy, the DCSEU offers these building owners rebates to reduce upfront costs of energy-efficient equipment.

Increased awareness of the DCSEU has resulted in a record number of businesses participating in its initiatives in FY 2014. In total, the DCSEU issued \$4.75 million in incentives to District businesses for more than \$16.8 million in energy improvements in the City's commercial and institutional buildings.





33,644 MWh 527 IN ANNUAL ELECTRICITY SAVINGS

\$16,836,677 in energy efficiency improvements

105,598 3

BUSINESSES INSTITUTIONS



## **HELPING A UNIVERSITY**

# Achieve Its Energy Goals

Georgetown University and the DCSEU have worked together since 2012 to address the university's ambitious energy efficiency and sustainability goals that support its commitment to reducing its carbon footprint 50 percent by 2020. The DCSEU has assisted the university in prioritizing energy efficiency projects and providing a technical and financial analysis of each energy efficiency opportunity. In FY 2014, Georgetown worked with the DCSEU to implement a bundle of energy efficiency projects, including stream traps on multiple buildings and at the central plant, and a variable frequency drive (VFD) on the combustion air blower of one of its central utility plant boilers. To maximize efficiency, DCSEU engineering staff recommended linking the VFD into the burner control system. As a result of the projects, Georgetown will reduce its annual natural gas use by more than 42,000 Mcf, and lifetime savings will add up to more than \$8 million.

At Georgetown, we are focused on meeting and exceeding our President's sustainability goals. Operational energy efficiency is an essential component of our sustainability strategy and is clearly a win-win. Such projects reduce the costs of basic services while advancing our carbon reduction goals. The partnership with the DCSEU is critical for us to achieve our shared sustainability goals and advance numerous sustainability initiatives.

### -Robin Morey

Vice President for Planning and Facilities Management, Georgetown University



# The partnership with the DCSEU is critical for us to achieve our shared sustainability



# All Aboard for **ENERGY SAVINGS**

Since 1907, Union Station has been a major landmark and cultural institution in the nation's capital. In FY 2014, energy efficiency upgrades were a part of the Washington Terminal Corporation's effort to maintain and modernize the station's historic beauty and functionality. The DCSEU worked with Union Station Parking Garage (USPG), LLC to upgrade the efficiency of its parking garage.

More than 90,000 visitors pass through Union Station's doors daily—many of them arriving by car. Operating 24 hours a day, 7 days a week, the facility was expensive to operate because of high energy use. Poorly lit and unlit areas also raised safety concerns for customers and operations personnel alike. To rectify these problems, the DCSEU recommended high-efficiency lighting upgrades.

The DCSEU offered incentives for the replacement of 1,200 175-watt metal halide fixtures with high-performance T8 (HPT8) linear fluorescent fixtures. The installation of this higher efficiency lighting will provide the Union Station Parking Garage with annual energy savings of 1,108,427 kWh, the equivalent of an annual reduction of 789 metric tons of carbon dioxide emissions.

56 This upgrade has really made our parking facility a much safer place...and clients cannot believe the difference it makes, even in the daytime.

Lajuana Jones,
 Senior Project Manager,
 USPG, LLC



# Hitting THE BENCHMARK

The District is one of many cities that have adopted building energy benchmarking and public disclosure policies. District law now requires building owners and property managers with commercial and multifamily buildings that are 50,000 square feet or larger to report energy and water use to the District Department of the Environment (DDOE). The DCSEU Benchmarking Help Center gave these building owners and property managers access to free training and assisted them in benchmarking their buildings with ENERGY STAR® Portfolio Manager. Throughout FY 2014, the Help Center provided phone line customer support and delivered hands-on training in the Portfolio Manager tool. It also has answered general questions about regulation, and assisted in data collection. In FY 2014, the Benchmarking Help Center fielded more than 800 requests for assistance, making it easier for hundreds of businesses to track and compare energy and water consumption in their buildings. More than 40 percent of those required to submit data received technical assistance from the Help Center in FY 2014.

After three years of success in assisting building owners and property managers in benchmarking and reporting their data, the Help Center function will shift in FY 2015 from the DCSEU to DDOE.



# **ONE LESS THING**

for a Small Business to Worry About

Businesses like the Cheeky Puppy, an eco-conscious pet supply store in Dupont Circle, might not have the same operating hours or energy use as larger facilities, but energy efficiency is still a smart step for reducing operating costs. When the store was preparing to open in April 2014, owner Courtney Stamm learned of DCSEU rebates for businesses from an employee at a participating retailer in Woodley Park. Ms. Stamm worked with the DCSEU to upgrade 22 lights to LEDs at the Cheeky Puppy—a step that will create energy savings and reduce maintenance costs, both of which will improve the store's bottom line. The Cheeky Puppy is expected to see savings of more than \$1,200 over the life of the new LEDs.

66

When you're spending large amounts of cash left and right during build out, it's good to know that there might be a little bit of extra help

99

Learning about the DCSEU's rebates for businesses was terrific and it definitely helped push me over the edge. When you're spending large amount of cash left and right during buildout, it's good to know that there might be a little bit of extra help. As a new small-business owner, every penny counts. I would much rather put the money saved toward marketing efforts or other things that will help grow the business, long-term. \*\*

—Courtney Stamm, Owner, The Cheeky Puppy



# A FAMILIAR FACE SCOMMUNITY

# IN THE COMMUNITY

In FY 2014, DCSEU staff participated in more than 80 events throughout the City, from community festivals and events in its participating retail stores, to the first signature POWER LUNCH event. These events have significantly raised awareness of the DCSEU and its services, providing residents with information about the energy efficiency resources available to them. As part of its community outreach efforts, the DCSEU also partnered with 25 food banks in FY 2014 to distribute more than 19,300 CFLs and LEDs to nearly 2,400 income-qualified households—saving residents more than \$1 million over the life of the bulbs.

The DCSEU launched a new website in FY 2014 to help make it even easier for District residents to take advantage of DCSEU

services. Featuring a comprehensive efficient-lighting guide, an interactive home energy walkthrough, and a map of customer savings throughout the City, the website received a 2014 Official Honoree Webby Award in the Green Website category from the International Academy of Digital Arts and Sciences. Press coverage, advertisements, and a social media campaign that encouraged residents to "#RepresentDC" with energy efficiency drove customers to the new website, increasing visits by 50 percent over FY 2013 totals. Advertisements at bus shelters, on Metrobuses, and in Metro stations also reminded District residents that DCSEU services are available to them. In FY 2014, the DCSEU Marketing and Communications team was more active than ever in promoting the DCSEU's offerings and successes to District residents and businesses.

# **50% INCREASE**

in website traffic over FY 2013

76 EARNED MEDIA APPEARANCES IN TELEVISION, BLOG, AND PRINT

# COMMUNITY EVENTS IN EACH OF THE CITY'S



2,392 LOW-INCOME HOUSEHOLDS SERVED THROUGH FOOD BANKS

# **EMPOWERING** the Neighborhood

In honor of Earth Day 2014, the DCSEU hosted the first POWER LUNCH on April 25 at the Half Street Fairgrounds near Nationals Park. The DCSEU's signature event, a festive introduction of the DCSEU to the Capitol Riverfront community, featured food trucks, music, games, free giveaways, and interactive displays. DDOE, Washington Metropolitan Transit Authority (WMATA), Zipcar, Capital Bikeshare, news station WTOP-FM, installer WDC Solar, and Sylvania offered guests information and other resources for saving energy and money through sustainable energy.

POWER LUNCH sponsors were the Washington Nationals, VIDA fitness, Bluejacket Brewery, JW Marriott, Arena Stage, Bikram Yoga Capitol Hill, Solar Solution, Buzz Bakery, Ralph O. McMillan & Associates, Trusted Solutions Group, and CBS Radio. CBS Radio made 15 on-air promotions prior to the event, and staff members were on site, broadcasting live from the event. Tommy McFly of 94.7 Fresh FM's "The Tommy Show" (CBS Radio) emceed the event, encouraging the crowd to enter to win raffle prizes ranging from Washington Nationals tickets to a residential solar PV system for an income-qualified family. The DCSEU and Sylvania also distributed 900 CFLs and 600 LEDs to the first 500 guests. More than 1,000 District residents and Capitol Riverfront tenants attended the event.

What began as an idea for a simple food truck event evolved into an opportunity for local businesses, District government organizations, and residents to come together in the spirit of building a more sustainable City.

DISTRIBUTED



CREATINGJOB



# OPPORTUNITIES FOR DC RESIDENTS



# **GREEN JOBS**

The DCSEU supported the employment of hundreds of District residents through the delivery of DCSEU initiatives in each of the City's eight Wards. In its commitment to social equity, the DCSEU ensures all employees and contractors, internal and external, are paid at or above the City's Living Wage of \$13.60 per hour. This year, 14 District residents joined the DCSEU as full-time staff members, and 8 university students or recent graduates joined as summer interns. The DCSEU created more than 159,900 green job hours, or 82 FTE jobs, for District residents.

The DCSEU is dedicated to expanding the District's green economy by preparing local jobseekers for careers in energy efficiency and related fields. In FY 2014, the DCSEU launched the Workforce Development initiative to provide mentorship opportunities for entry-level professionals. The initiative places externs with seasoned mentors for experiential learning in energy efficiency. This practice has given contractors and vendors the opportunity to coach, guide, and share experiences that will contribute to an extern's development. Participants also attended workshops on resume writing and interview practice, to prepare them for job searches after completing the program. In FY 2014, 31 externs participated in the initiative, 10 of whom received Building Performance Institute (BPI) auditor training, courtesy of the DCSEU.

# Sof DCSEU Cof DCSEU

\$4,221,870

159,900 GREEN JOB HOURS

for DISTRICT RESIDENTS

**8 INTERNS** : 14 STAFF MEMBERS HIRED



# **ECONOMIC GROWTH**

# that Benefits Small Businesses

When it comes to the DCSEU's work, participating Contractors do more than just carry out energy efficiency projects. They increase the number of green collar jobs in the District, spread awareness of DCSEU offerings to potential customers, and train entry-level professionals for work in a more sustainable DC.

Local contractor Greenscape Environmental Services alone has reported more than 1,600 green job hours in FY 2014 in its first year as a Participating Contractor. Greenscape has also hired 6 externs through the DCSEU's Workforce Development initiative. In FY 2014, Greenscape worked with the DCSEU to complete energy efficiency projects with more than 35 businesses, resulting in annual savings of more than \$60,000.

At the end of the day, the Workforce Development externs are helping businesses like ours achieve their goals and complete projects, and the businesses are helping these employees meet goals of their own. We're a small business, so helping to lower the overall expenses of other small businesses so that they can put that money toward other improvements...it's a good feeling.

**-Tony Harrison,** President, Greenscape





# ES NITIVES

The DCSEU offers 12 energy efficiency and renewable energy initiatives to serve customers in four core sectors: residential, low-income multifamily, renewable energy, and commercial and institutional.

# **RESIDENTIAL**

### **EFFICIENT PRODUCTS**

Deep discounts on CFLs, LEDs, and appliances with participating retailers in DC; rebates for appliances and gas equipment installed by licensed DC contractors

Customer: All District residents

## **EFFICIENT PRODUCTS AT FOOD BANKS**

CFLs and LEDs offered at no charge to patrons of food banks

Customer: Income-qualified District residents

## HOME PERFORMANCE WITH ENERGY STAR®

Rebates for whole-home energy efficiency improvements

Customer: District single-family homeowners

## **INCOME-QUALIFIED SERVICES**

Direct installation of household energy efficiency products and improvements

Customer: Income-qualified District homeowners

# LOW-INCOME MULTIFAMILY

### LOW-INCOME MULTIFAMILY COMPREHENSIVE

Custom technical and financial assistance for energy efficiency improvements in multifamily properties

*Customer:* Multifamily building owners serving income-qualified District residents

# 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

*Customer:* Multifamily buildings owners serving income-qualified District residents

# **RENEWABLE ENERGY**

### SOLAR PHOTOVOLTAIC (PV)

Incentives and financing to install solar PV systems

Customer: Income-qualified District homeowners

### **SOLAR THERMAL**

Incentives to install solar thermal arrays

*Customer:* Cooperative housing groups and multifamily building owners serving income-qualified District residents

# COMMERCIAL AND INSTITUTIONAL

### **BUSINESS ENERGY REBATES**

Rebates for energy-efficient lighting, heating, refrigeration, cooking, and other qualifying equipment

Customer: Business owners

### T12 LIGHTING REPLACEMENT

Incentives for customers to re-lamp and re-ballast existing T12 fixtures with high-performance T8 lamps and ballasts

Customer: Business owners

### BENCHMARKING HELP CENTER

Guidance on benchmarking energy and water use via the EPA Portfolio Manager tool, and on reporting the data to DDOE

Customer: Building owners and property managers

### COMMERCIAL AND INSTITUTIONAL CUSTOM

Technical assistance, account management, and financial incentives for energy efficiency projects

Customer: Large commercial and institutional customers

# PERFORMANCE BENCHMARKS

# **PROGRESS IN FY 2014**

Natural gas and electricity savings. DCSEU initiatives in FY 2014 resulted in an annual reduction of 134,586 Mcf in natural gas consumption. This is an increase of 167 percent from FY 2013 and exceeds the Performance Benchmark minimum metric for natural gas savings. Electricity consumption was reduced by 60,778 MWh, an increase of 20 percent from FY 2013. The DCSEU committed 74 percent of utility ratepayer dollars it receives from the Sustainable Energy Trust Fund (SETF) to the electricity initiatives that resulted in those savings. It committed 26 percent of the budget to natural gas initiatives. These proportions align with the respective allocations of each of those energy utilities to the SETF.

**Peak demand.** DCSEU initiatives in FY 2014 reduced the growth of peak electricity demand in the District of Columbia by 8,620 kW. This far exceeded the Performance Benchmark minimum for peak demand.

**Renewable energy generating capacity.** In FY 2014, the DCSEU completed nearly double the amount of renewable energy projects in the City than in FY 2013. The DCSEU also reduced the negotiated price per therm with participating contractors by more than 8 percent. In its commitment to social justice, the DCSEU provided BPI audits, weatherization, and specific equipment replacement measures free of cost to single-family solar customers and roof

replacements to two low-income multifamily buildings whose compromised roofs would have prevented the installation of this technology. These combined energy efficiency and renewable energy measures increased overall costs, thus preventing the DCSEU from meeting this benchmark.

**Low-income investment.** Committed to reducing the financial burden associated with energy costs in low-income households, the DCSEU invested over \$6 million in energy services to the low-income community. This investment far exceeded the minimum metric for the low-income services Performance Benchmark of \$3.52 million.

Largest energy users. The DCSEU significantly reduced the growth in energy demand of the largest energy users, defined as buildings larger than 200,000 square feet. The minimum metric for this Performance Benchmark (largest energy users) was 30 projects for FY 2014; the DCSEU completed 77 projects with these customers, exceeding the metric by 256 percent.

**Green jobs.** FY 2014 marked the first time that the DCSEU met and exceeded the metric for the green jobs Performance Benchmark; it created 82 FTE jobs for District residents.

Table 1. FY 2014 DCSEU achievements on Performance Benchmarks and Minimum Requirements

ITEM	DESCRIPTION	METRIC UNIT	BENCHMARK MINIMUM	FY 2014 RESULTS <sup>1</sup>
1a	Reduce per-capita consumption—Electricity	MWh	51,845	60,778
1b	Reduce per-capita consumption—Natural gas	Mcf	61,521	134,586
2	Increase renewable energy generating capacity	Cost / kWh over FY 2013	10% cost reduction	8% cost reduction
3	Reduce growth in peak demand	kW	2,000	8,620
4	Improve energy efficiency in low-income housing	% of annual budget	\$3,520,000	\$6,168,247
5	Reduce growth in energy demand of largest users	# of projects completed with a square footage of > 200,000	30	77
6	Increase number of green collar jobs <sup>2</sup>	Green job FTEs directly worked by DC residents, earning at least a Living Wage	53	82
7	Expenditure of annual SETF dollars allocated to DCSEU services	Fiscal year dollars	\$18,129,861	\$18,129,998
8	Expenditures with Certified Business Enterprises	Minimum expenditure for Certified Business Enterprises	\$2,950,000	\$4,221,890
9a	Annual expenditures related to electric energy efficiency	Program expenditures that reduce electrical energy consumption, allocated to sustainable energy activity	\$10,560,000	\$13,387,871
9b	Annual expenditures related to natural gas energy efficiency	Program expenditures that reduce natural gas consumption, allocated to sustainable energy activity	\$2,640,000	\$4,742,127

<sup>&</sup>lt;sup>1</sup>Results to be verified through DDOE's evaluation, measurement, and verification contractor.

<sup>&</sup>lt;sup>2</sup> Period results are estimates, subject to final verification of green job hours.

# **ECONOMIC BENEFITS**

DCSEU work completed in FY 2014 will generate more than \$95 million in avoided energy costs over the life of the energy improvements installed. When compared to the \$18 million in program costs, the District is receiving a 5:1 savings-to-cost ratio from dollars invested in energy efficiency and renewable energy.

Table 2. Lifetime economic benefits and annual customer savings

	RESIDENTIAL CUSTOMERS	COMM. & INST. CUSTOMERS	TOTAL
Lifetime economic benefits <sup>1</sup>	\$26,832,097	\$68,782,456	\$95,614,553
First-year annual energy cost reduction <sup>2</sup>	\$3,384,673	\$5,467,168	\$8,851,841

 $<sup>^1</sup>$  Lifetime economic benefits are defined as the present value of the avoided cost of energy for the life of each measure installed.

# **ENERGY SAVINGS BY SECTOR**

Overall electricity consumption in FY 2014 was reduced by more than 60,000 MWh. Approximately 55 percent of total electric savings came from the Commercial and Institutional core area.

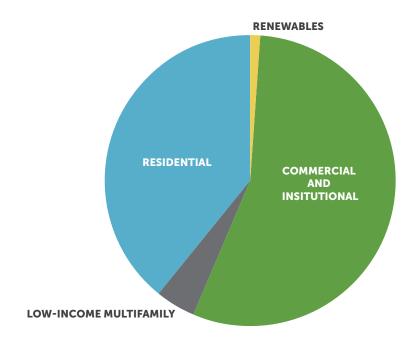


Figure 1. Electricity savings by core area, in MWh.

<sup>&</sup>lt;sup>2</sup> First-year annual energy cost reduction equals the estimated savings in energy costs, at average retail rates, for the first 12-month period in which the efficiency and / or renewable energy measures. are in operation.



# **EXPENDITURES—BUDGETED TO ACTUAL**

Table 3. FY 2014 budgeted and actual expenditures

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	ANNUAL PLAN BUDGET	ACTUAL EXPENDITURES					
IMPLEMENTED ENERGY SERVICES							
Residential Initiatives	\$2,943,728	\$3,142,517					
Low-Income Multifamily Initiatives	\$2,159,756	\$4,385,843					
Renewable Energy Initiatives	\$1,631,036	\$1,714,047					
Commercial Initiatives	\$6,846,458	\$6,333,816					
SUPPORT SERVICES							
Administration	\$3,378,917	\$2,115,388					
Information Technology	\$640,105	\$438,387					
TOTAL	\$17,600,000	\$18,129,998¹					

<sup>&</sup>lt;sup>1</sup> The final budget reflects a \$530,000 increase approved by DDOE.







# DC SUSTAINABLE ENERGY UTILITY

80 M Street SE, Suite 310, Washington, DC 20003 W www.dcseu.com P 202-479-2222 E info@dcseu.com









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