

# SUSTAINABILITY IS OUR SUPERPOWER



DC  
SUSTAINABLE ENERGY  
UTILITY

Annual Report 2019



## **EMPOWERING DC TO CONFIDENTLY CREATE A SUSTAINABLE FUTURE**

*The 2019 fiscal year (FY) data presented in this report are based on the DCSEU's estimates of energy savings and green job hours. These data are subject to rigorous monitoring and verification by a third-party evaluation firm hired by the District Department of Energy and Environment.*



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FY 2019 HIGHLIGHTS

**1.4 million US tons**

of lifetime carbon emissions prevented  
—the equivalent emitted by burning 690,000  
US tons of coal<sup>1</sup>



**\$7.1 million**

invested with Certified  
Business Enterprises (CBEs)



**\$212 million**

in lifetime energy cost  
savings for customers



Enough solar initiated through  
Solar for All to cut electricity  
bills in half for 1,500+  
income-qualified homes<sup>2</sup>

**117**

income-qualified seniors and residents with disabilities received  
new efficient heating, AC, or hot water heating systems



**\$4 million**

invested in energy efficiency  
for low-income communities



**1,500+**

DC business and institution sites  
served by DCSEU programs

<sup>1</sup> <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

<sup>2</sup> <https://www.seia.org/initiatives/whats-megawatt>; The Solar Energy Industries Association (SEIA) estimates that 1 MW of solar will power approximately 125 homes in the District; 7 MW of capacity was initiated through DCSEU's Solar for All program in FY 2019. Based on the District's average residential electric bills for calendar year 2016



## A MESSAGE FROM THE DCSEU

Shortly after the DCSEU's 2019 fiscal year began, the Council of the District of Columbia adopted some of the most ambitious and aggressive energy and environmental targets in the country. With the passage of the Clean Energy DC Omnibus Act of 2018, the District has positioned itself as a sustainability role model in the United States. As a critical player in helping the District achieve these targets, we believe the DCSEU has set the standard for demonstrating the role energy efficiency and renewable energy can play, not only in reducing energy use, but in significantly reducing greenhouse gas emissions and creating a positive and lasting impact in the community.

Since 2011, we have helped District residents, businesses, and institutions achieve nearly \$1 billion in lifetime energy cost savings. We have created green career opportunities for hundreds of District residents, including 20 this year through our Workforce Development Program, and invested more than \$35 million with Certified Business Enterprises (CBEs) so that businesses here in DC have new opportunities to succeed in the green economy. We have invested more than \$39 million in energy efficiency and renewable energy projects in low-income communities, increasing the comfort of thousands of families and allowing those families to put the dollars they save on their energy bills where it matters most to them. All this work has culminated in preventing more than 6.2 million tons in lifetime greenhouse gas emissions. This is what environmental and economic sustainability look like.

The theme of our FY 2019 report is "Sustainability is Our Superpower," highlighting the most important asset at the DCSEU: our staff. Without our staff, we lose the innovation, ingenuity, and drive to create the best possible programs and services for our customers and make the biggest impact for DC. Thanks to our staff, our strong performance leading up to and during FY 2019 puts the DCSEU in a strong position to meet or exceed its challenging energy savings benchmarks by the end of our five-year contract and puts the District on the path to achieve the bold targets it has set for 2032. We look forward to keeping the District at the forefront of energy efficiency and renewable energy.



Ted Trabue,  
Director, DCSEU

Shawn Fenstermacher  
General Manager, DCSEU



# SMA

**My superpower is helping residents save the planet while saving money through smart choices at home.**

Josh began working with the DCSEU as an extern through the Workforce Development program in the fall of 2018. After completing his externship at the DCSEU office, he was then hired as a program analyst. Josh is now an Associate Program Manager at the DCSEU where he helps DC residents by going the extra mile to assist customers.

**POWERING  
ARTER CHOICES  
AT HOME**



**275,000+**

efficient products sold through retail stores across the District



**45,000**

program participants in DCSEU residential rebates

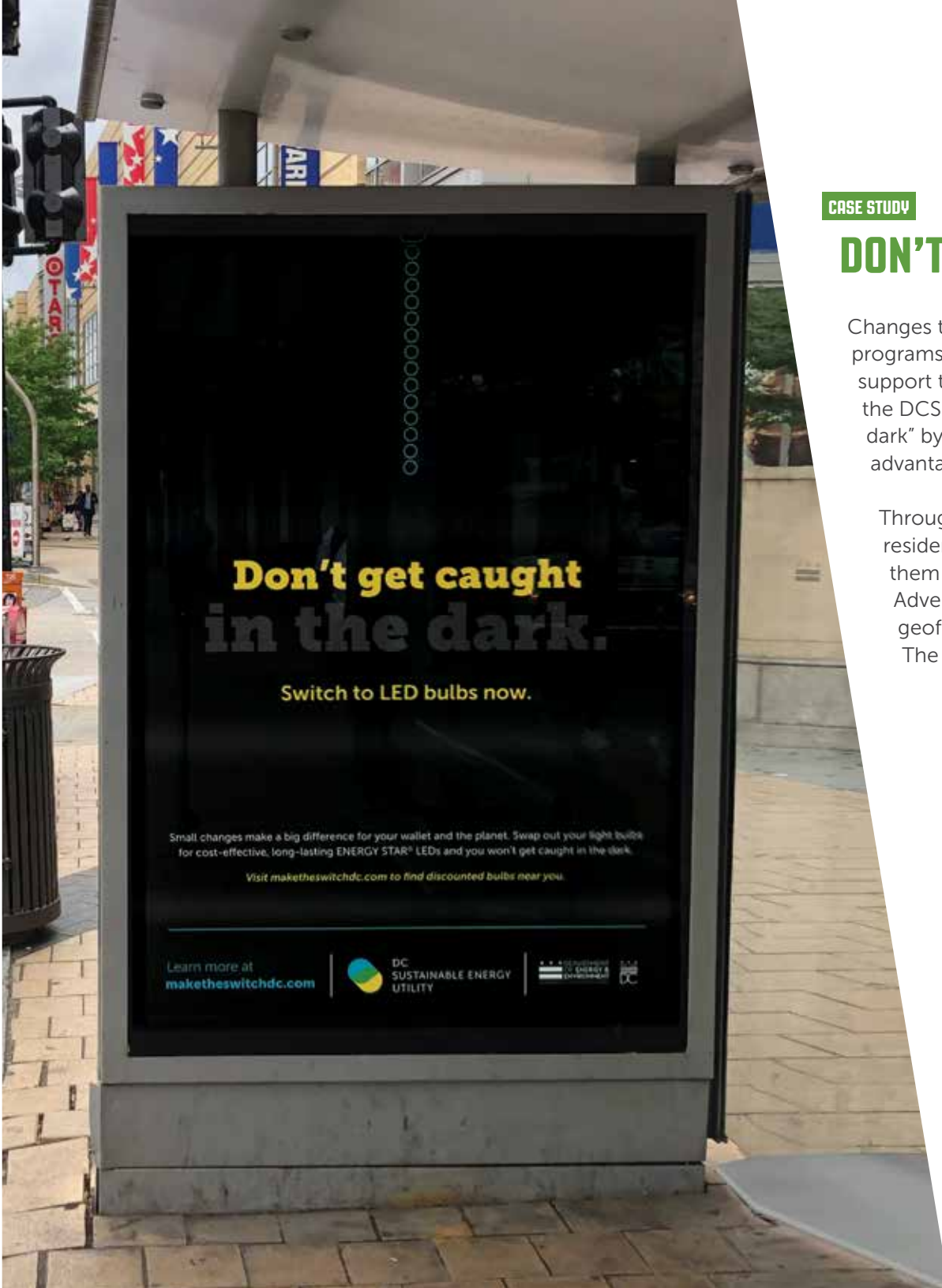
In FY 2019, the DCSEU focused heavily on informing DC residents about LED lighting benefits and discounts, pushing them to “Make the Switch” in a marketing campaign that ran from March through September. The DCSEU partnered with 17 manufacturers and more than 20 local and online retailers to offer discounted lighting to residents. As a result, residents purchased more than 264,000 LEDs, an increase of more than 10,000 bulbs compared to FY 2018. The DCSEU will continue to push information about the benefits of LEDs and discounts available in FY 2020.

The DCSEU’s marketing campaign also featured placements encouraging residents to “Make the Switch” to smart thermostats. In FY 2019, residents applied for rebates on more than 950 smart thermostats, with more than \$47,650 in rebates provided in FY 2019. Many of these participants who purchased Nest-

brand smart thermostats have also signed up for Nest’s Seasonal Savings program, which helps customers cut energy costs by making small changes to temperature settings in summer and winter to make them more efficient. The DCSEU partners with Nest to provide a small amount of funding to encourage Nest owners to sign up for the Seasonal Savings program. More than 8,075 residents participated in the Nest Seasonal Savings program in FY 2019, saving more than \$122,000 in energy costs in FY 2019 as a result.

Throughout the year, the DCSEU distributed energy savings tips, energy savings resources, and information about DCSEU services to District residents. Partnerships with the Office on Aging, Public Service Commission, Office of the People’s Counsel, and DOEE allowed the DCSEU to reach thousands of residents, with particular attention on hard-to-reach populations, such as seniors.





**CASE STUDY**

## DON'T GET CAUGHT IN THE DARK

Changes to federal lighting standards mean that many energy efficiency programs across the country will not be able to offer the same levels of support to residential lighting rebate and discount programs. In FY 2019, the DCSEU sought to make sure DC residents were not “caught in the dark” by using traditional incandescent or CFL bulbs and were able to take advantage of LED discounts.

Through a multi-channel advertising campaign, the DCSEU encouraged residents to “Make the Switch” to ENERGY STAR LEDs now and directed them to local and online retailers that offer DCSEU-discounted bulbs. Advertising placements included outdoor, print, digital (including geofenced ads around participating lighting retailers), and digital radio. The campaign will continue in FY 2020.



# CREATING ENERGY JUSTIC ACROSS DC

**My superpower is helping all DC residents live comfortably with dignity while saving money on their utility bills.**

Frank started working for the DCSEU in spring of 2019 as an Account Manager. Frank works with local hospitals and health care facilities to save money while saving lives and taking care of some of the District's most vulnerable residents.

E





**\$13M**

in Lifetime Energy Cost Savings on income-qualified projects



**117**

emergency HVAC projects completed with seniors/residents with disabilities



**2,700**

Energy Kits distributed to income-qualified residents

Energy justice—the application of ethical principles to reducing the energy burden on disadvantaged and vulnerable populations – remains an important goal of the DCSEU. In FY 2019, the DCSEU invested more than \$4 million in energy efficiency in low-income communities, and for the first time achieved and exceeded its maximum benchmark for energy savings in low-income communities. By providing capital through financial incentives, as well as the energy and dollar savings from the energy-efficient upgrades, the DCSEU is reducing both the financial barriers to making upgrades and the energy burden on residents.

To serve owners and managers of affordable multifamily housing, as well as qualified clinics and shelters, in FY 2019 the DCSEU sought to meet customers' unique needs. For customers who had support from a vendor or contractor, the DCSEU offered prescriptive rebates for lighting and HVAC equipment in income-

qualified properties. For customers who needed technical support, the DCSEU offered Account Managers and Engineers to assist with building walkthroughs, project reviews, and proposal evaluations, with financial incentives offered for completed projects that achieved energy savings. Finally, for customers needing both technical assistance as well as project management support, the DCSEU brought qualified CBE contractors to projects and paid for a percentage of the project costs through its Income Qualified Efficiency Fund (IQEF) program to ensure customers had the support they needed.

The DCSEU also served individual income-qualified residents through several programs in FY 2019. In addition to its Solar for All offerings, the DCSEU operated an Emergency HVAC Program to repair or replace non-working equipment for income-qualified seniors or residents with disabilities.<sup>3</sup> Working with CBE and contractors, the DCSEU replaced boilers, furnaces, central air conditioning, or

<sup>3</sup> The Emergency HVAC Program is not included in the DCSEU's Low-Income spending or energy savings benchmarks.



hot water heaters with energy-efficient models in 117 customer's homes. As it has done in previous years, the DCSEU also offered Home Energy Conservation Kits to income-qualified residents in partnership with DOEE. More than 2,700 kits were distributed to residents through DOEE Low Income Home Energy Assistance Program (LIHEAP) centers and through other partners who serve income-qualified residents. In partnership with MegaLight, a company that manufacture, markets, and sells LEDs, the DCSEU also distributed more than 6,000 LED light bulbs to income-qualified residents through community partners Ayuda and Bread for the City.





**“** *Any time that we don't have to spend funds on operations and administrative infrastructure, it means that we have more to support our clients, community, and staff. All of those savings are really critical, not only to being able to build a sustainable organization, but to make investments that are more directly related to our mission.*

—Catalina Sol  
Executive Director, La  
Clinica del Pueblo

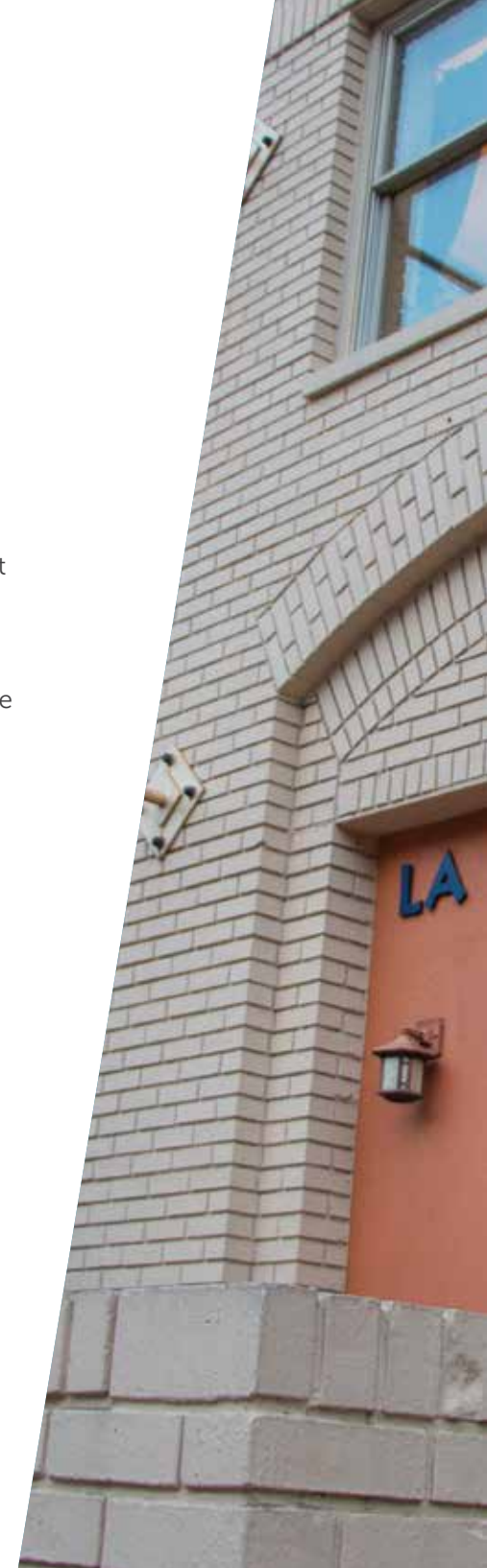
#### CASE STUDY

## MORE RESOURCES TO IMPROVE THE HEALTH OF DC RESIDENTS

La Clinica del Pueblo has been committed to improving the health of Latinx immigrants and low-income families for more than three decades. La Clinica primarily serves Latinx immigrants in the District by offering primary medical care, mental health care, and other services. Through the DCSEU's Income Qualified Efficiency Fund (IQEF), La Clinica was able to upgrade lighting fixtures and install a new HVAC unit in their 15th Street site.

The previous unit was about 20-years-old and could be unreliable during heat waves in the summer. In the past, staff have had to close the clinic due to maintenance issues because it was not possible to deliver services to patients. With the new equipment, La Clinica can continue to focus on providing excellent care to patients in the District while worrying less about repairs, maintenance, and high energy costs.

The DCSEU seeks to work with hospitals and other healthcare facilities like La Clinica, as they can spend twice as much as other businesses on energy-related expenses. The IQEF Program is designed to support projects that improve buildings, neighborhoods, or whole communities through energy efficiency. With both lighting and HVAC upgrades, La Clinica is expected to prevent more than 150,000 pounds in CO<sub>2</sub> emissions and save 107,000 kWh in electricity, resulting in more than \$12,000 in energy cost savings in the first year.





**CASE STUDY**

## **A WARMER, MORE EFFICIENT HOME FOR WINTER**

Vanessa Brooks was previously unable to heat the second floor of her home due to a broken radiator. Through the Emergency Heating, Ventilation, and Air Conditioning (HVAC) Program, Vanessa was able to receive a new, energy-efficient boiler and hot water heater. Vanessa now says she feels comfortable in her house and can heat her entire home in a more efficient way.

Through the program, the DCSEU worked with the District Department of Energy and Environment (DOEE) and local heating and cooling contractors to repair or replace non-working heating and air conditioning systems and water heaters for income-qualified seniors and District residents with disabilities who own or rent their homes.

The program was especially important to low-income families, as these populations are the most vulnerable to extreme weather conditions and are also less likely to have available funds to be able to fix a heating system when it breaks. Vanessa also reports having lower energy bills because the new equipment installed exceeds code requirements for efficiency.

**//** *I used to dread the winter time.  
Now I'm feeling very optimistic about next winter.*

—Vanessa Brooks  
Emergency HVAC Recipient





**\$4.7M**

invested in energy efficiency and renewable energy incentives in the C&I market by the DCSEU



**\$71M**

invested by DCSEU C&I customers in energy efficiency and renewable energy projects



**437**

energy efficiency projects completed through DCSEU C&I programs



# POWERING OUR ECONOMY WITH GREEN ENERGY

**Our superpower is efficiency!**  
**We help businesses improve their bottom lines**  
**by implementing renewable energy initiatives.**

Bizu and Leigh's jobs at the DCSEU go hand-in-hand! Leigh, a DCSEU Account Manager, works with retail stores and local businesses to help them find energy solutions and rebates. Bizu works on the Engineering team at the DCSEU to help conduct audits, walkthroughs, and calculate savings. The Account Management and Engineering Teams work together to help DC businesses find energy-efficient solutions for their buildings.

In FY 2019, the DCSEU continued its charge to deepen relationships with markets, partners, and customers in the Commercial and Institutional (C&I market) to bring both tried-and-true and innovative approaches to saving energy. Through no-cost technical assistance and financial incentives, the DCSEU's Account Management, Program Management, and Engineering teams helped more than 1,500 sites achieve more than 119,000 MWh in first-year electricity savings and more than 257,000 MMBTU in first-year gas savings.

The DCSEU continued to offer prescriptive and instant rebates to C&I customers on LED lighting, motors, HVAC, refrigeration, and commercial food service and vending equipment, with a focus on small- and medium-sized businesses.

The DCSEU's Account Management and Engineering teams pursued and served the District's larger energy users across vertical markets, including universities, hospitals/health care facilities, K-12 schools, hotels

and hospitality, and multifamily properties. These teams meet regularly with existing customers to work on projects and capital planning, reach out to new customers and trade allies to find energy-saving opportunities, and participate in market activities, speaking opportunities, and events to help educate the market.

With the adoption of Building Energy Performance Standards (BEPS), the DCSEU has been an active participant in stakeholder discussions to gain an understanding of the opportunities and challenges different vertical markets will face, as well as to educate customers on how the DCSEU may be able to help as BEPS are implemented and enforced. The DCSEU looks forward to continuing this work to support the C&I market in FY 2020 and beyond.







#### CASE STUDY

## COOKING UP A NEW APPROACH TO SUSTAINABILITY

Rise Bakery is a one-of-a-kind gluten-free bakery located in Adams Morgan. Through the DCSEU's partnership with Great Streets, a DC government program designed to boost local business development, the bakery received grant money and rebates. Owner Mike Koritko worked with the DCSEU to receive rebates for installing a new efficient air conditioning (AC) unit and tankless water heater.

The new AC unit was placed in the kitchen to help keep the kitchen and the staff cool. Koritko says temperatures in the kitchen used to rise to more than 80 degrees in the summer. The new kitchen unit is twice as efficient as the main unit, resulting in the main unit doing only a quarter of the work it used to do. Koritko appreciates the DCSEU for offering incentives for the new high-end, energy-efficient unit. He says his staff are not only cooler, but he has been able to save 20% off his utility bills each month.

"Saving money on my electric bill, which is definitely my greatest bill, and getting incentives to do it, is like a no-brainer," says Koritko. With the DCSEU's incentives and rebates, Koritko was able to budget grant funds while reducing his carbon footprint on a business scale. Koritko thinks it's important for his bakery and for other small businesses to think about energy efficiency to help save money.

**“Saving money on my electric bill, which is definitely my greatest bill, and getting incentives to do it, is like a no-brainer.”**

—Mike Koritko  
Owner of Rise Bakery

CASE STUDY

## A FACILITY UNITED AROUND SAVING ENERGY

When construction was completed at Audi Field in July 2018, it was the most expensive soccer stadium constructed in the United States. By connecting with engineering partner, JLL, Audi Field's front office prioritized efficiency in the stadium's heating and cooling systems. Through the DCSEU's Custom C&I program, Audi Field received technical assistance and financial incentives towards the stadium's heating, cooling, and air conditioning (HVAC) systems and ENERGY STAR kitchen equipment.

The stadium was able to make energy-efficient improvements in the kitchen, food areas, locker rooms, lounges, team stores, and various suites throughout the facility. As a part of the stadium's energy portfolio, the new HVAC systems have occupancy-based sensors that control the temperature based on the number of occupants in a given area.

These measures will prevent more than 630,000 pounds of CO<sub>2</sub> emissions, and save Audi Field almost 362,000 kWh in electricity, more than 900 MMBtu in fuel, and nearly 6,000 gallons of water. The stadium is expected to save over \$48,000 in energy costs in the first year. The DCSEU looks forward to continuing its relationship with Audi Field as they look to complete a solar PV project in 2020.

*I think that the DCSEU is a one-of-a-kind resource for District residents and businesses. We are looking forward to continuing a relationship as we plan to install our solar panels in the next phase of this.*

—Gregory Burie  
Vice President of Finance, Audi Field





## CASE STUDY

# UNIVERSITIES GET THEIR “DEGREE” IN SUSTAINABILITY

When one of the DCSEU’s Account Managers, Giuliana Kunkel, put together the DCSEU’s first University Roundtable, she thought it would be a good way for local colleges and universities in the District to come together, build connections, and share knowledge about their campuses becoming greener. The DCSEU hosted the first roundtable in November 2018 with representatives from nine universities, including Georgetown University, Howard University, American University, and more.

This year, the Account Management Team completed four University Roundtables – one in each quarter. In each roundtable, representatives were able to share and receive information and resources about upcoming events, awards, conferences, and DCSEU programs and incentives. Some universities hosted building tours and discussed internal strategies on smart buildings and green technology.

Some of the topics discussed during the roundtables were deferred maintenance, renewable energy, and campuswide lighting strategies. As an indirect result, this is the first year the DCSEU has completed a project with every university in the District.



## CASE STUDY

# PROTECTING TREASURES AND PLANNING FOR A GREEN FUTURE

With policies, codes, and the market for energy efficiency changing constantly, the DCSEU must be innovative to design and test new ways to help customers achieve energy savings. The DCSEU began designing a Pay for Performance (P4P) program in FY 2018, which would allow customers pursuing complex, multi-measure, behavioral, and/or operational changes to access DCSEU technical assistance and financial incentives based on pre- and post-project metered data that determine actual energy saved. In FY 2019, the DCSEU moved P4P from an Innovation pilot program to a full-fledged program offering for C&I customers.

Hillwood Estate, Museum & Gardens was purchased by Marjorie Merriweather Post in 1955. Recently, Hillwood has put a focus on becoming more energy efficient. In 2018, Hillwood kicked off a sustainability project with Pritchett Controls to optimize their HVAC control systems. Through the DCSEU's P4P program, Hillwood received incentives for their energy conservation based on pre- and post-project metered data.



Pritchett was contracted to replace eight 3-way valves used to supply heating and chilled water to air handling units throughout the museum buildings with a more intelligent valve design. Once they saw the immediate improvement in efficiency, the facilities team changed an additional 14 valves, replaced windows, optimized HVAC night setbacks, and switched nearly 450 incandescent lights to LEDs campus-wide.

Hillwood is expected to prevent almost 370,000 pounds in CO<sub>2</sub> emissions, and save 184,000 kWh in electricity and 879 MMBtu of natural gas in the first year. With the upgrades, Hillwood will still preserve the aesthetics of the museum and the integrity of the art objects all while saving more than \$28,000 in energy costs the first year. With the money saved on utility bills, Hillwood plans to put more money into educational purposes and maintenance of the site to better engage the public. Hillwood is one of the first P4P projects to be completed, with a total of 11 P4P projects completed in FY 2019.

***“Having newer, updated, and more efficient equipment, it’s easier for us to maintain temperatures and humidity in collection spaces.”***

—Brian Greenfield  
Head of Maintenance and Facilities,  
Hillwood Estate, Museum & Gardens

# INNOVATING WITH GREEN ENERGY



**Our superpower is helping buildings save lots of energy with no-cost/low-cost measures.**

Giuliana, a DCSEU Account Manager, and Patti, Senior Technology Strategist, work together to help large scale commercial buildings by developing and implementing new, innovative strategies to assist with their quest to become more energy efficient.



**EMPOWERING  
RESIDENTS  
VALUABLES**

# GDC WITH KILLS



**\$7.1M**

spent with 25 CBEs



**20**

Workforce  
Development Program  
graduates found  
full-time employment

The solar and energy efficiency industries employ more than 13,000 people in the DC area.<sup>4</sup> The DCSEU strives to work with District businesses and train District residents to ensure that number continues to grow. In FY 2019, through a variety of energy efficiency and renewable energy programs, the DCSEU created 76 full-time equivalent green jobs paid at DC's Living Wage or higher and spent more than \$7.1 million on work with CBEs.


The DCSEU continued its Workforce Development Program in FY 2019 with goals of reducing unemployment, enhancing marketable skills for workers, and shaping the local green economy. Since 2016, 66 District residents have graduated from the program, with nearly 90% of those offered full-time employment in green careers after graduation. In FY 2019, the DCSEU had two cohorts of externs with 20 externs graduating from the program. Externs work full-time with mentor organizations for five months, are paid above the District's Living

Wage, and receive weekly training from the DCSEU on career development, goalsetting, resume writing, and interviewing skills. As a new offering in FY 2019, the DCSEU partnered with BB&T Bank and National Cooperative Bank, who sponsored and led financial literacy trainings for the externs.

Externs in FY 2019 received hands-on project experience in solar installation, engineering, building maintenance, administration, electrical contracting, HVAC operation, and more. They also had access to training opportunities in the field, and, most importantly, nationally-recognized certifications such as LEED, ISSP, and Building Operator. Externs worked alongside mentors at a variety of organizations, including WMATA, the Department of Consumer and Regulatory Affairs (DCRA), Howard University, Metropolitan Washington Council of Governments (MWCOG), WDC Solar, Greenscape Environmental Services, and Columbia Property Trust.

To meet part of its mission to help local businesses grow, the DCSEU worked with 25 CBEs in FY 2019. Through the Solar for All program alone, all four single family contractors installing solar PV and four of the developers working on community solar projects were CBEs. Providing these District-based businesses with the opportunity to prove themselves has helped many of the DCSEU's contractors grow their businesses inside and outside of the District, which provides further job opportunities for residents.

<sup>4</sup> [https://e4thefuture.org/wp-content/uploads/2018/09/D.C.\\_2019\\_Final.pdf](https://e4thefuture.org/wp-content/uploads/2018/09/D.C._2019_Final.pdf) and [https://www.seia.org/sites/default/files/2019-09/Factsheet\\_Washington%20DC.pdf](https://www.seia.org/sites/default/files/2019-09/Factsheet_Washington%20DC.pdf)



**Our super power is giving our neighbors across DC the job training—and confidence!—they need to get, keep, and advance in “green” jobs.**

Gleniss, the DCSEU’s Workforce Development Program Manager, has been working at the DCSEU since 2015, assisting DC residents by getting them back into the workforce. Eddie started as a Workforce Development extern for Greenscape Environmental Services.

After completing his externship, Eddie began working for the DCSEU as an Energy Associate through PEER Energy Consultants.





#### CASE STUDY

## HELPING ANDRE COMPETE IN TODAY'S JOB MARKET

Before Andre Roberson was selected for the DCSEU's Workforce Development Program, he had hopes of becoming an electrical technician. When he heard about the program, he submitted a resume and followed up on it a few months later. He was told to come in for an interview and met Gleniss Wade, the DCSEU's Workforce Development Program Manager, who interviewed and eventually accepted him into the program.

Through the Workforce Development Program, Andre was able to complete a six-month externship at Greenscape Environmental Services while attending bi-weekly workshops at the DCSEU. The workshops provided externs like Andre with job skills development, including resume writing and interviewing skills. "They've helped me get over the fear of getting back out into the workforce by giving me the opportunity to learn some new skills and develop a certain confidence that I can go out there and compete in today's job market," says Andre.

Nearly 90% of externs like Andre go on to full-time positions in green careers. Andre has also had the opportunity to learn about solar technology while doing solar PV installations. When he isn't installing solar, he's installing light fixtures in affordable housing. Andre not only continues to work at Greenscape, but since graduating from the DCSEU's Workforce Development Program has now been promoted to Team Lead where he leads a crew of solar installers.

**“** *(The DCSEU) helped me get over the fear of getting back out into the workforce, by giving me the opportunity to learn some new skills and develop a certain confidence that I can go out there and compete in today’s job market.*

—Andre Roberson  
DCSEU Summer Workforce  
Development Extern





# SU

**My superpower is harnessing the power of the sun to help residents and business owners implement cost-saving solar energy solutions.**

Yazan is a Solar Program Associate who works on the DCSEU's Solar team. Through Solar for All, Yazan helps low-income residents transform photons to cost savings by helping install solar across the District.

**USING THE  
N TO POWER  
THE CITY**





According to WAMU, there were more than two times as many solar installation permits issued in the District in FY 2019 compared to the previous year, and more than three times as many permits issued than in FY 2015.<sup>5</sup> The DCSEU was an active part of this increase across residential and C&I solar markets in FY 2019. Through Solar for All, a DOEE program funded through the Renewable Energy Development Fund (REDF), the DCSEU designed and implemented two programs: one to install solar photovoltaic (PV) systems on single-family homes at no cost to income-qualified residents; and a second to install community renewable energy facilities (CREF), or community solar, on commercial and multifamily sites throughout the District where the electrical output from the systems will be distributed to income-qualified District residents.

As part of its single-family Solar for All offering, the DCSEU worked with four CBE contractors to find income-qualified homeowners and residents of single-family homes interested in solar, assess their homes' suitability for solar PV on their roofs, and install systems designed to cut resident's electricity costs by 50 percent or more. The DCSEU and its contractors installed 86 systems on income-qualified homes.

Under its CREF offering, the DCSEU worked with four CBE solar developers to find suitable multifamily and C&I sites to install large PV systems. After the systems are operational, their electrical output will be distributed to income-qualified families throughout the District by DOEE through bill credits that will save residents at least 50% on their electricity costs (based on the District's average residential electric bills for calendar year 2016), up to about \$600 per year. The DCSEU and its solar developer partners initiated a total of 84 systems, mostly on affordable multifamily properties across the District. Through the CREF offering, many of these multifamily building

<sup>5</sup> <https://wamu.org/story/19/10/02/solar-permits-more-than-doubled-in-d-c-last-year/>

owners and managers were able to negotiate new roofs for their buildings as part of their contract structures, where the solar developers will use their properties for solar generation. In total, the solar capacity generated through CREF projects is expected to serve more than 1,500 income-qualified homes through electricity bill credits.

The DCSEU worked closely with Pepco and the DCRA to streamline the process of permitting, inspection, and authorization to operate (ATO) for these systems and thank them for their partnership and hard work on Solar for All. The DCSEU's work on Solar for All will continue in FY 2020 and 2021.

Through the C&I Custom program, the DCSEU provided technical assistance and financial incentives for solar PV projects with C&I and multifamily properties. This included assistance and incentives on a system of more than 5 MW capacity installed at a military installation in the District, a project that the DCSEU has been working on for more than two years. The DCSEU also provided support

for solar PV projects installed on market rate and affordable multifamily properties, a church, and a local food incubator.

Finally, the DCSEU continued its SREC Leveraging program in partnership with Solar United Neighbors (SUN), who received a Solar for All grant in 2017 to install solar PV on income-qualified homes. Once SUN completes a solar PV project on a home, the DCSEU purchases the solar renewable energy credits (SRECs), which helps improve the upfront value of the SRECs. The DCSEU's SREC Leveraging program (1) allows SUN, the program grantee, to increase the number of households it can serve, (2) provides additional solar benefits to income-qualified DC residents, (3) reduces utility costs, and (4) leverages SREC funding to support future DCSEU programming. In FY 2019, the DCSEU purchased five years of SRECs for 62 projects from homeowners receiving solar PV systems through SUN. The homeowner receives the system at no cost and owns the system; after five years, the homeowner can monetize the SRECs themselves.



**84**

community solar projects installed through Solar for All



Enough solar PV capacity initiated through Solar for All to provide at least 50% energy bill savings to more than 1,500 homes<sup>6</sup>



**86**

no-cost solar PV systems installed on income-qualified, single-family homes

<sup>6</sup> <https://www.seia.org/initiatives/whats-megawatt>; The Solar Energy Industries Association (SEIA) estimates that 1 MW of solar will power approximately 125 homes in the District.



#### CASE STUDY

## HELPING BARBARA ACHIEVE A DREAM

Barbara met the DCSEU's Solar Director, Shelley Cohen, back in 2016 through the Affordable Solar program. Though the program was discontinued, Barbara still did not give up on her dream to install solar on her roof. By working with the DCSEU and Greenscape Environmental Services, Barbara was able to receive a free solar installation through Solar for All, a DOEE program.

She initially started doing research on solar several years ago and became interested in the idea; however she did not think it was feasible for her. "I've seen solar on homes in the neighborhood, but I just never thought that I could get solar based on my circumstances," says Barbara. When Cohen reached out and informed Barbara about Solar for All, she jumped at the opportunity. With a fixed income and a son in college, Barbara was extremely excited about the idea of receiving solar at no cost and the possibility of saving up to \$500 annually on her utility bills.

Now that solar has been installed in her home Barbara is excited about being on the cutting edge of DC's efforts to become a more sustainable and greener city. She reports her neighbors also having solar as well. She is looking forward to continuing to work with the DCSEU as a resource for other energy-efficient upgrades to her home.

**“***When you first hear of solar programs you think, ‘It’s out of my financial reach.’ So the fact that it isn’t and its available to me now is great. I feel like by having solar I’m really doing something that helps the environment.*

—Barbara  
DC Resident, Solar for All Recipient







#### CASE STUDY

## PUTTING MONEY BACK INTO THE POCKETS OF RESIDENTS WHO NEED IT MOST

Woodmont Crossing is a housing apartment complex owned by NHP Properties located in Southeast DC. Woodmont is just one of multiple affordable housing complexes managed by NHP. Through Solar for All, the DCSEU partnered with NEO, a local solar developer, to install solar photovoltaic systems on five roofs throughout the complex. The entire electrical output from the solar panels will be used to provide credits on Pepco bills to DOEE-designated income-qualified households.

Residents in Woodmont were given the opportunity to apply for credits through DOEE and were given priority access to the credits from the project. If qualified, DOEE will apply credits to offset at least 50% of residents' electric bills. The credits are provided at no cost to the residents and could save them more than \$500 annually.

Woodmont was the first Solar for All CREF project from the DCSEU to reach completion. With the completion of the project, NHP and NEO are bringing solar to more low-income communities, making the resource more accessible for those who could benefit the most.

**“ I think Solar for All is one of the best policies that’s in DC and we hope it continues and accelerates in the next 30 years to come. We look forward to being a part of it.**

—Henry Newman  
CEO, NEO



# PARTNERING TO MAKE DC A LEADER SUSTAINABILITY

**My superpower is developing relationships that enable DCSEU programs to do even more for the District and its residents.**

Patricia started at the DCSEU in 2017. As Development Manager, Patricia works to leverage additional resources and to reduce the energy burden on the Districts most vulnerable residents and the organizations that serve them.

# IN



**\$317,131**

additional dollars  
leveraged for  
DCSEU programs  
and services



MLB sponsorship  
of DCSEU Energy  
Conservation  
Kits for income-  
qualified residents



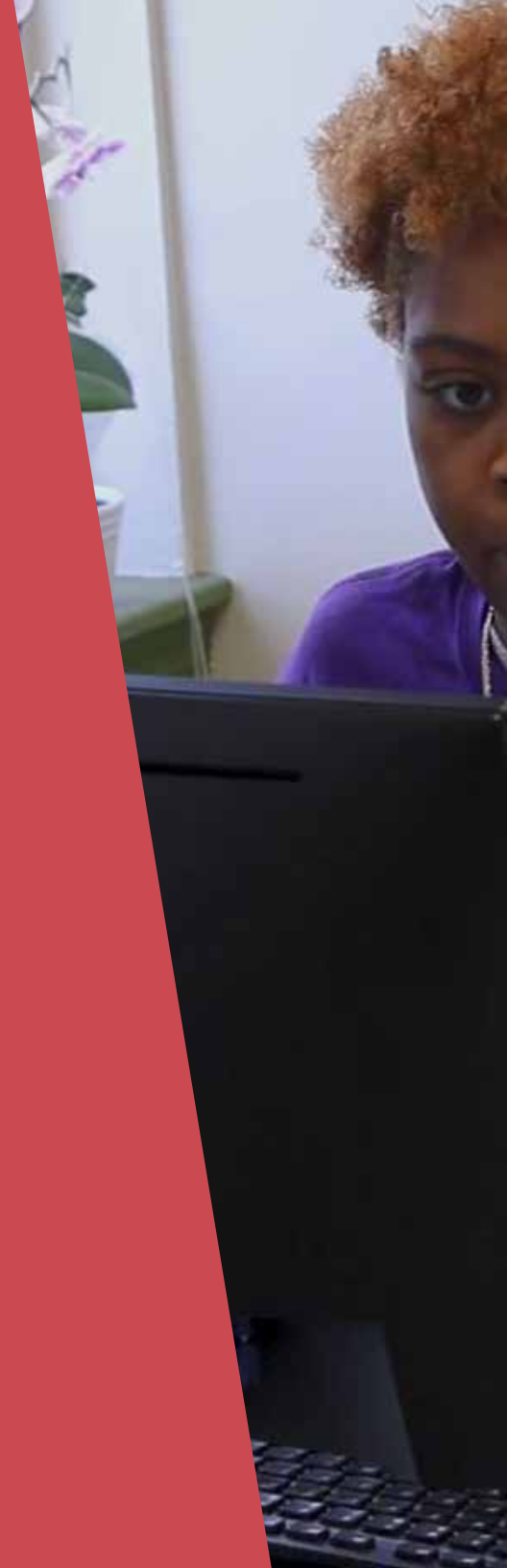
Financial Literacy  
training support  
from BB&T  
and National  
Cooperative Bank

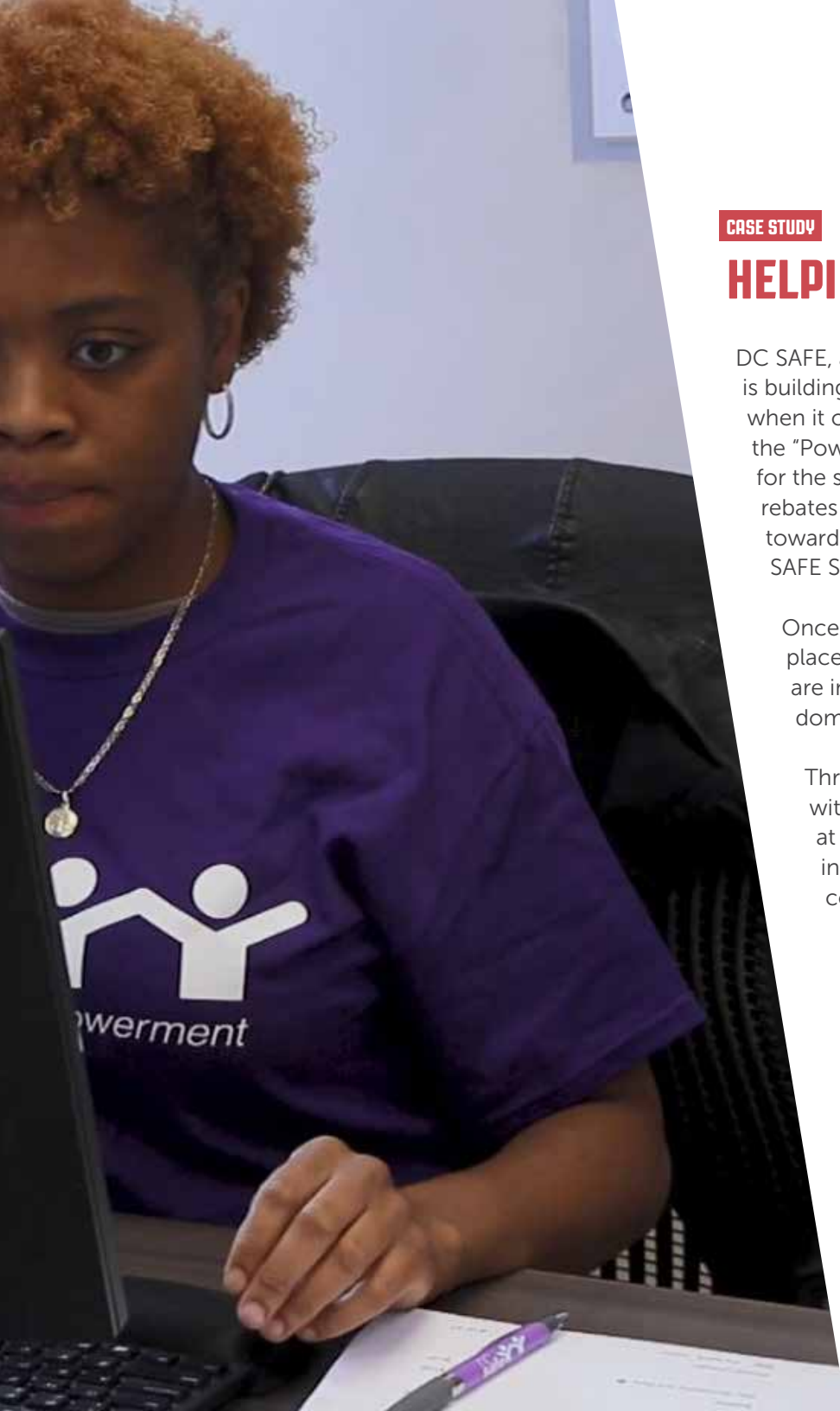
In FY 2019, the DCSEU Leveraging Team continued its work to find ways to support the DCSEU's mission through financing opportunities, support programs and projects through leveraged funding, and develop partnerships and sponsorships. The DCSEU continued to monetize its eligible energy savings in the PJM Interconnection, the Reliability Pricing Model (RPM) Market serving the District. In FY 2019, the DCSEU received total revenue of \$268,131 and will receive \$365,469 in revenue in FY 2020.

In support of the DCSEU's Workforce Development Program, the Leveraging Team secured \$5,000 in grant funding from the Marriott Foundation in support of Building Operator Certification training for five Workforce Development Program externs. In addition, the DCSEU partnered with both BB&T Bank and National Cooperative Bank, who provided \$2,000 and \$1,500 sponsorships of the Workforce Development Program, respectively. BB&T also provided financial literacy training to the Summer externs, and National Cooperative Bank will be providing similar training to the FY 2020 Winter externs.

As part of its Solar Renewable Energy Credit (SREC) Program with Solar United Neighbors (SUN), the DCSEU finalized a deal with Calvert Impact Capital, one of the region's largest impact investors. Calvert Impact Capital is providing a loan against SREC receivables from the 2017 Solar for All Program for which SUN received a grant. The securitized loan proceeds will be re-invested back into the DCSEU's programs and initiatives to further increase the DCSEU's impact in the District.

In support of the DCSEU's Refresh the District pilot initiative, the DCSEU secured a \$5,000 sponsorship from Major League Baseball (MLB) to help fund the DCSEU's Energy Conservation Kits. The DCSEU also partnered with NBC 4, Habitat for Humanity, and United Planning Organization (UPO) on Refresh the District, holding a kickoff event in October 2018, where residents received the Energy Conservation Kits and filled out forms to determine if they were income qualified in order to receive additional energy efficiency support in their homes from the DCSEU.





#### CASE STUDY

## HELPING SURVIVORS FEEL AT HOME

DC SAFE, a non-profit that helps survivors of domestic violence in the District, is building a shelter that will house as many as 700 survivors and their families when it opens in December 2020. The DCSEU partnered with DC SAFE on the “Power to Save Lives” campaign to help fund energy saving equipment for the shelter. Through the campaign, the DCSEU is contributing \$28,000 in rebates for the equipment while working to raise approximately \$45,000 to go towards energy-efficient lighting, heating, and other equipment for the new SAFE Space Crisis shelter.

Once complete, the facility will double its capacity to offer short-term placements for those in crisis. The shelter will be a series of micro units that are intended to provide privacy and become a sanctuary for survivors of domestic violence.

Through campaigns like “The Power to Save Lives,” the DCSEU partners with nonprofits like DC SAFE to raise money for energy efficiency projects at District-based charities and non-profits. The DCSEU received 11 individual donations towards the DC SAFE project in FY 2019 and will continue to look for opportunities to raise funds in FY 2020.

**“** *Having energy-efficient appliances allows us to save money, but also allows us to be able to provide a home-like space to our survivors.*

—Natalia Marlow-Otero  
DC SAFE, Executive Director



**My superpower is connecting with the community in person and online to ensure everyone has the chance to benefit from the DCSEU.**

LaTavia started working at the DCSEU in 2019 as a Marketing Project Manager. LaTavia works in the Marketing department to create content and develop marketing strategies to communicate with customers and push the DCSEU's brand awareness.



# COM

**ENGAGING THE  
MUNITY ON OUR  
GREEN FUTURE**



**90**

Earned Media Mentions



**9%**

increase in new user visits to DCSEU website



**30+**

Community Outreach events

In FY 2019, the DCSEU sought to elevate the DCSEU brand, support the DCSEU’s residential and commercial programs, and reach out to low- and moderate-income residents.

The DCSEU promoted LED and smart thermostats through an advertising campaign launched in March 2019. The ads were featured on bus shelters throughout the city, on Metro platforms (digital), Pandora online radio, and in the Express, Washington Informer and Capital Community News outlets. The campaign achieved millions of impressions and helped increase LED sales compared to FY 2018.

In FY 2019, the DCSEU partnered with agencies and utilities on several community outreach events, including the Public Service Commission’s Winter Ready DC event, Pepco Utility Discussion, and a meeting with DC Council Constituent Service Directors. The DCSEU also partnered with District agencies on existing outreach activities

that support hard-to-reach populations, such as seniors and low-income residents. The DCSEU partnered with the Office of the People’s Counsel, the Public Service Commission (PSC), the Office on Aging, and other agencies to promote the DCSEU’s Emergency Heating and Cooling program and single-family Solar for All offerings. The team also partnered with the PSC and Unity Health Care on a Winter Ready coat, glove, and hat drive as part of its Martin Luther King, Jr. Day of Service activities.

Among many activities to reach the C&I market, the DCSEU sponsored events with BISNOW and Leaders in Energy, spoke on panels at events sponsored by the Office of the Deputy Mayor for Planning and Economic Development and DCRA, convened local university sustainability and facility leaders to share best practices and lessons learned, and launched a refrigeration offering with support from marketing.

## CASE STUDY

# GETTING SKYLAND RESIDENTS SAVING MORE

In October 2018, the DCSEU launched the Refresh the District pilot initiative in Ward 8's Skyland neighborhood, designed to bring a holistic approach to sustainability in the community through collaborative partnerships. Originally a DC Habitat for Humanity-built community, Skyland has more than 30 homes that were a part of the DCSEU's FY 2012 Affordable Solar initiative.

Partnering with DC Habitat for Humanity, NBC 4 Washington, United Planning Office (UPO), and Major League Baseball, the DCSEU hosted a block party for Skyland residents. The team distributed 40 Home Energy Conservation Kits, sponsored in part by Major League Baseball, containing an advanced power strip, six LED light bulbs, a low-flow faucet aerator, and educational materials to Skyland residents.

In November and December, the team surveyed residents on issues in their home, such as drafts and high energy bills, and reached out via letter, e-mail, phone, and in-person to income-qualified residents for additional energy efficiency services. Seven homeowners qualified, and the DCSEU performed inspections and energy audits on the homes, developing scopes of work to make the homes more energy efficient and more comfortable through air sealing, insulation, and upgrading systems and appliances with energy-efficient options. This work will continue in FY 2020 to complete upgrades in these seven homes, with two additional homes identified to serve.





# WE ARE STRONG, EFFECTIVE, AND JUST GETTING STARTED..

**My super power is providing world class financial support to internal and external customers.**

London serves as the DCSEU's Financial Project Coordinator. On the Finance team, London protects the financial health of the organization by being a good steward of ratepayer dollars, ensuring the DCSEU is delivering results to rate payers and customers.



## PERFORMANCE BENCHMARKS

### **Natural Gas Savings and Electricity Savings**

DCSEU initiatives in FY 2019 resulted in an annual reduction of 2,718,547 Therms in natural gas consumption. This exceeds the Performance Benchmark maximum annual target for natural gas savings. Electricity consumption was reduced by 154,065 MWh, which exceeds the Performance Benchmark maximum annual target.

### **Renewable Energy Generating Capacity**

In FY 2019, the DCSEU completed 7,129 kW in installed solar capacity (Sustainable Energy Trust Fund only), exceeding the Performance Benchmark maximum annual target and exceeding the DCSEU's maximum cumulative five-year benchmark.

### **Low-Income Spending**

The DCSEU spent \$4,037,175 on energy efficiency projects in low-income communities. This exceeds the Performance Benchmark maximum annual target for low-income spending.

### **Low-Income Savings**

The DCSEU significantly reduced energy use in low-income communities, with a combined electricity and thermal savings of 51,784 MMBtu. This exceeds the Performance Benchmark maximum annual target.

### **Green Jobs**

All DCSEU jobs and contractor positions, both internal and external, are offered at or above the District's Living Wage. In FY 2018, the DCSEU created 76 FTE jobs, exceeding the Performance Benchmark minimum annual target.

### **Leveraging**

The DCSEU leveraged \$317,131 in FY 2019 toward its five-year cumulative Performance Benchmark of \$5,000,000.

TABLE 1.

# ANNUAL PERFORMANCE BENCHMARKS

**Contractual:** Requirement of the contract and financial bonuses and penalties can be issued.

**Tracking:** Requirement to track no financial bonus or penalty associated.

**\*Contractual:** Requirement of the contract based on District law, financial penalty can be issued by DSLBD.

	Goal Type	FY 2019 Actuals	FY Maximum Target	% of Maximum Target
Total Electric Savings (MWh)	Contractual	154,065	115,297	134%
Total Gas Savings (Therms)	Contractual	2,718,547	1,705,129	159%
Total Renewable Capacity (kW)	Contractual	7,129	1,000	713%
Summer Peak Demand (kW)	Tracking	23,406		
Total Low-Income Savings (MMBTU)	Contractual	51,784	46,556	111%
Total Low-Income Budget Spend	Contractual	\$4,037,175	\$3,818,333	106%
General & Administrative Spend	Contractual	\$3,536,937		
Total Budget Spend	Contractual	\$19,285,210	\$19,294,410	100%
Total Green Jobs Created (FTEs)	Contractual	76	88	86%
Large Energy Users Engaged	Tracking	95	50	190%
CBE Spend	*Contractual	\$7,182,963	\$6,845,900	105%
Electric Spend	Tracking	\$15,389,790	\$15,428,168	
Gas Spend	Tracking	\$3,895,400	\$3,857,042	

TABLE 2.

## CUMULATIVE PERFORMANCE BENCHMARKS PROGRESS

**Contractual:** Requirement of the contract and financial bonuses and penalties can be issued.

	Goal Type	Actuals 10/1/2016- 9/30/2019	Contract Minimum Target	% of Contract Minimum	Contract Maximum Target	% to Contract Maximum Target
Total Electric Savings (MWh)	Contractual	380,480	461,188	82%	576,485	66%
Total Gas Savings (Therms)	Contractual	6,953,373	7,980,096	87%	10,230,774	68%
Total Leveraged Funds (\$)	Contractual	\$984,720	\$2,500,000	39%	\$5,000,000	20%
Total Renewable Capacity (kW)	Contractual	11,210	4,050	277%	5,000	224%

TABLE 3.

## ECONOMIC BENEFITS

	Residential Customers	C&I Customers	Total
Lifetime economic benefits	\$25,063,839	\$187,410,461	\$212,747,300
First-year annual cost reduction	\$4,011,188	\$15,155,809	\$19,166,997

Lifetime economic benefits are defined as the present value of the avoided cost of energy for the life of each measure installed. The value of the avoided costs, at average retail rates, for the first 12-month period in which the efficiency and / or renewable energy measures are in operation.

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.



TABLE 4.

# BUDGETED TO ACTUAL EXPENDITURES

## DCSEU FY 2019 BUDGET

## FY 2019 ACTUALS

Sector	Programs/Initiatives	Incentive Budget	Non-Incentive Budget	Total Budget	Incentive Actual	Non-Incentive Actual	Total Actual
C&I	Business Energy Rebate	\$674,374	\$250,000	\$924,374	\$494,030	\$ 107,473	\$601,502
C&I	Commercial Upstream	\$400,000	\$65,000	\$465,000	\$470,897	\$ 51,191	\$522,088
C&I	Commercial Custom	\$2,890,000	\$1,500,000	\$4,390,000	\$2,750,098	\$ 1,915,069	\$4,665,167
C&I	Commercial Direct Install	\$600,000	\$45,000	\$645,000	\$1,080,579	\$ 52,373	\$1,132,952
LIMF	Income Qualified Efficiency Fund	\$1,561,970	\$350,000	\$1,911,970	\$1,675,335	\$ 417,919	\$2,093,254
LIMF	Low Income MF Comprehensive	\$901,924	\$150,000	\$1,051,924	\$805,398	\$ 144,530	\$949,927
LIMF	Low Income MF BER	\$651,425	\$25,000	\$676,425	\$415,151	\$ 25,594	\$440,745
RES	Residential Efficient Products	\$786,995	\$300,000	\$1,086,995	\$767,019	\$ 319,177	\$1,086,197
RES	Residential Upstream	\$8,000	\$10,000	\$18,000	\$4,819	\$ 2,809	\$7,628
IN	Innovation: SREC (LI)	\$331,894	\$35,000	\$366,894	\$310,147	\$ 37,396	\$347,543
IN	Innovation: Curb Project (LI)	\$34,500	\$ 25,000	\$59,500	\$34,500	\$ 22,860	\$57,360
IN	Innovation: Other	—	\$40,000	\$40,000	\$30,768	\$ 29,102	\$59,870
WD	Workforce Development	—	\$550,000	\$550,000	—	\$ 584,144	\$584,144
RE	Commercial Solar	\$272,315	\$15,000	\$287,315	\$334,628	\$ 52,737	\$387,365
RE	Solar (LI)	\$86,603	\$20,000	\$106,603	\$86,604	\$ 10,242	\$96,846
PS	Program Support		\$2,855,528	\$2,855,528	—	\$ 2,722,347	\$2,722,347
G&A	General and Administrative Support		\$3,858,882	\$3,858,882	—	\$ 3,539,145	\$ 3,539,145
<b>Total</b>		<b>\$9,200,000</b>	<b>\$10,094,410</b>	<b>\$19,294,410</b>	<b>\$9,259,972.85</b>	<b>\$10,034,108</b>	<b>\$19,294,081</b>

**TABLE 5.**

## SOLAR FOR ALL EXPENDITURES & PERFORMANCE

FY 2019 CONTRACT AWARD	FY 2019 Actuals	CREF Projects Initiated	Single-Family Projects Completed
\$12,000,000	\$5,971,200	84	86

**TABLE 6.**

## EMERGENCY HVAC EXPENDITURES & PERFORMANCE

FY 2019 CONTRACT AWARD	FY 2019 Actuals	Total Participants Served
\$1,351,666	\$1,296,821	117

**TABLE 7.**

## INVENTORY OF FY 2019 SERVICES BY MARKET

CORE AREA	INITIATIVE NAME	DESCRIPTION	CUSTOMER
Residential	Efficient Products	Deep discounts on LEDs with partnering retailers in DC; mail-in rebates for qualifying energy-efficient appliances; free energy kits for DC residents	DC residents
	Heating and Cooling Rebates	Rebates on qualifying boilers, furnaces, heat pumps, central air conditioning, and mini split heat pumps	DC residents
	Emergency HVAC Program	Emergency replacement of furnaces, boilers, heat pumps, and hot water heaters with energy-efficient options where possible	Income-qualified DC seniors and residents with disabilities

*continued on next page*

TABLE 7.

# INVENTORY OF FY 2019 SERVICES BY MARKET

*continued*

CORE AREA	INITIATIVE NAME	DESCRIPTION	CUSTOMER
Low-Income Multifamily	Low-Income Multifamily Comprehensive	Custom technical and financial assistance for energy efficiency improvements for multifamily properties	Property owners of multifamily buildings, shelters, and clinics serving income-qualified DC residents
	Income Qualified Efficiency Fund	Custom rebates and technical assistance accessed through a competitive application process for income-qualified multifamily, shelter, and clinic facilities, including contractor support	Property owners of multifamily buildings, shelters, and clinics serving income-qualified DC residents; approved contractors
Renewable Energy	Commercial Solar	Incentives and financing to install solar PV systems	Commercial business owners
	Solar for All Single Family	Solar PV installations at no cost to income-qualified DC residents in single-family homes	Income-qualified DC residents
	Solar for All Community Renewable Energy Facilities (CREF)	Community solar PV installations with capacity generated transferred to DOEE to manage subscriptions for bill credits for income-qualified DC residents.	C&I and multifamily building owners, property managers, and developers
Commercial and Institutional	Business Energy Rebates	Rebates for energy-efficient lighting, heating, refrigeration, cooking, and other qualifying equipment	Business owners
	Commercial Direct Services	Direct installation of energy efficiency measures at primarily small and medium-size commercial businesses	Business owners
	Instant Business Rebates	Discounted energy-efficient lighting through CBE distributors	Business owners
	Commercial and Institutional Custom	Technical assistance, account management, and financial incentives for energy efficiency projects	Large commercial and institutional customers
	Pay for Performance	Technical assistance, account management, and incentives for energy conservation measures based on pre- and post-project metered data that determines actual energy saved. Designed for C&I buildings larger than ~100,000 square feet that have completed or are undergoing complex, multi-measure, behavioral, and/or operational changes.	Large commercial and institutional customers

# Skylann Community Day

Saturday, October 6th

Skylann - 1pm  
Community

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