



DC
SUSTAINABLE ENERGY
UTILITY

A Look at an Energy Efficiency Utility's Successes Supporting Federal Agencies

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Agenda

- ▶ Definition of an “EEU”
- ▶ A Look at the DCSEU
- ▶ Sample Customer Case Studies



What is an EEU?

- EEU = Energy Efficiency Utility
- VEIC – DCSEU's parent company
 - Founded the Nation's first EEU in 1999
 - Operates 3 EEUs



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An Exelon Company



DCSEU.COM

ABOUT THE DCSEU



DCSEU Overview

- ▶ Clean & Affordable Energy Act (2008): DCSEU Opened its doors in 2011
- ▶ Ratepayer-funded, privately operated
- ▶ Our purpose: Assist organizations in achieving operational energy goals.
 - Provide both technical and financial assistance
- ▶ Clean Energy Omnibus Bill (2018)

Through FY18 Over 5 Million Tons of CO₂e Lifetime Carbon Emissions Prevented.

**Equivalent to emissions from burning 5.4 billion pounds of coal
Lifetime energy savings of \$850 million.**



DCSEU Goals

Electricity
Savings



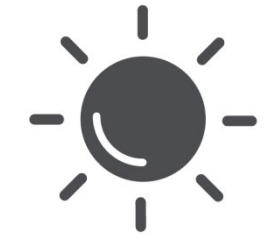
Gas
Savings

Green
Jobs



Local Economic
Development

Low-Income
Spending



Renewables





SIBLEY MEMORIAL
HOSPITAL
JOHNS HOPKINS MEDICINE



Paralyzed Veterans
of America



Smithsonian



Georgetown
University



AMERICAN UNIVERSITY
WASHINGTON, DC



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DCSEU's Programs

- ▶ No-Cost Technical Assistance
- ▶ Financial Support
 - Prescriptive Incentives
 - Custom Rebates



Technical Assistance with Federal Customers

- Tabling at Events
- Marketing Support
- Setting Lighting Standards
- Building Operator Certification
- Project Meetings
- Scope Review
- Technology Intros
- Sourcing Lighting
- GSA representation at meetings



Building Operator Certification Training Course



- Graduates make buildings more efficient and comfortable
- Scholarship from DCSEU
- Classes held at DCSEU

Typical Course:

- Five in-person trainings, lasting all day
- Plus two online trainings
- Option to take exam at the end

DCSEU Incentives

- ▶ Project support with ESPC/UESC
- ▶ Capital Projects/Retrofits
- ▶ Resiliency Efforts
- ▶ New Construction
- ▶ Retrocommissioning, Energy Management Programs (P4P)
- ▶ Net Zero Support
- ▶ Renewables



Incentive Program Overview

Product Category	
Lighting	Interior LEDs
	Exterior LEDs
	Controls
Heating and Ventilation	Boiler Projects
	Hot Water Heaters
	Steam Systems
	Steam Trap Replacement
	Variable Frequency Drives (VFDs)
	Demand Control Ventilation
	Chillers
Pay for Performance	Heat Pumps
	Recommissioning and Retro-commissioning
	Advanced Building Controls
Refrigeration and Food Service	Energy Management Information Systems
	Walk-in refrigerators and freezers
	ECM Motors for Walk-in coolers and freezers
Other	Food Service Equipment
	New Construction Projects
	Complex, Multi-measure projects
	Renewables
	Net Zero Building Projects

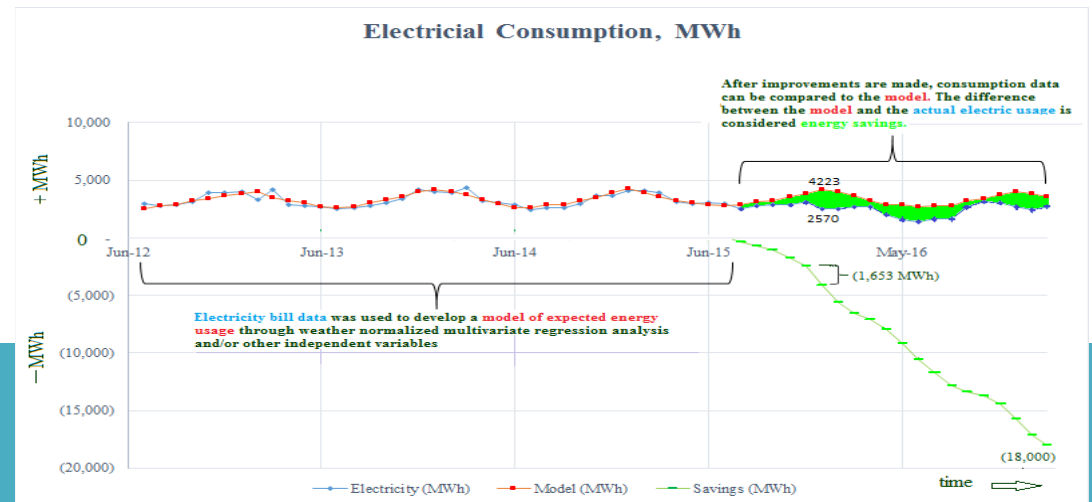


PAY-FOR-PERFORMANCE CUSTOM INCENTIVE PROGRAM

The DCSEU will pay incentives to customers for the energy savings generated.

Project types that qualify:

- Complex, multi measure projects
- Re-commissioning
- Interactive effects of multiple ECMs
- Advanced Building controls
- Energy Management Information Systems (EMIS)



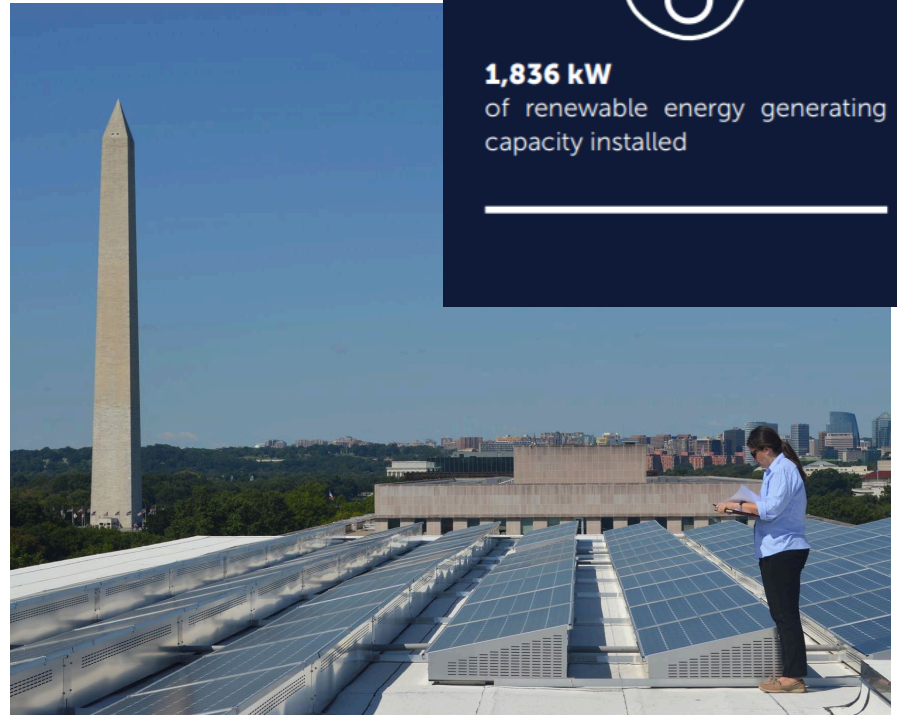
UESC and ESPC Assistance

- ▶ National Deep Energy Retrofit Program
- ▶ Early Involvement
- ▶ IGA Review
- ▶ Independent Energy Calculations
- ▶ Direct Communication with ESCO, Building Team, and Project Team
- ▶ Can Phase Rebates
- ▶ M&V Strategies



Solar Projects

- Custom project
- Incentive based on production capacity
- Can be a single measure or part of a comprehensive project
- Support to project teams



CASE STUDIES



Lighting Example



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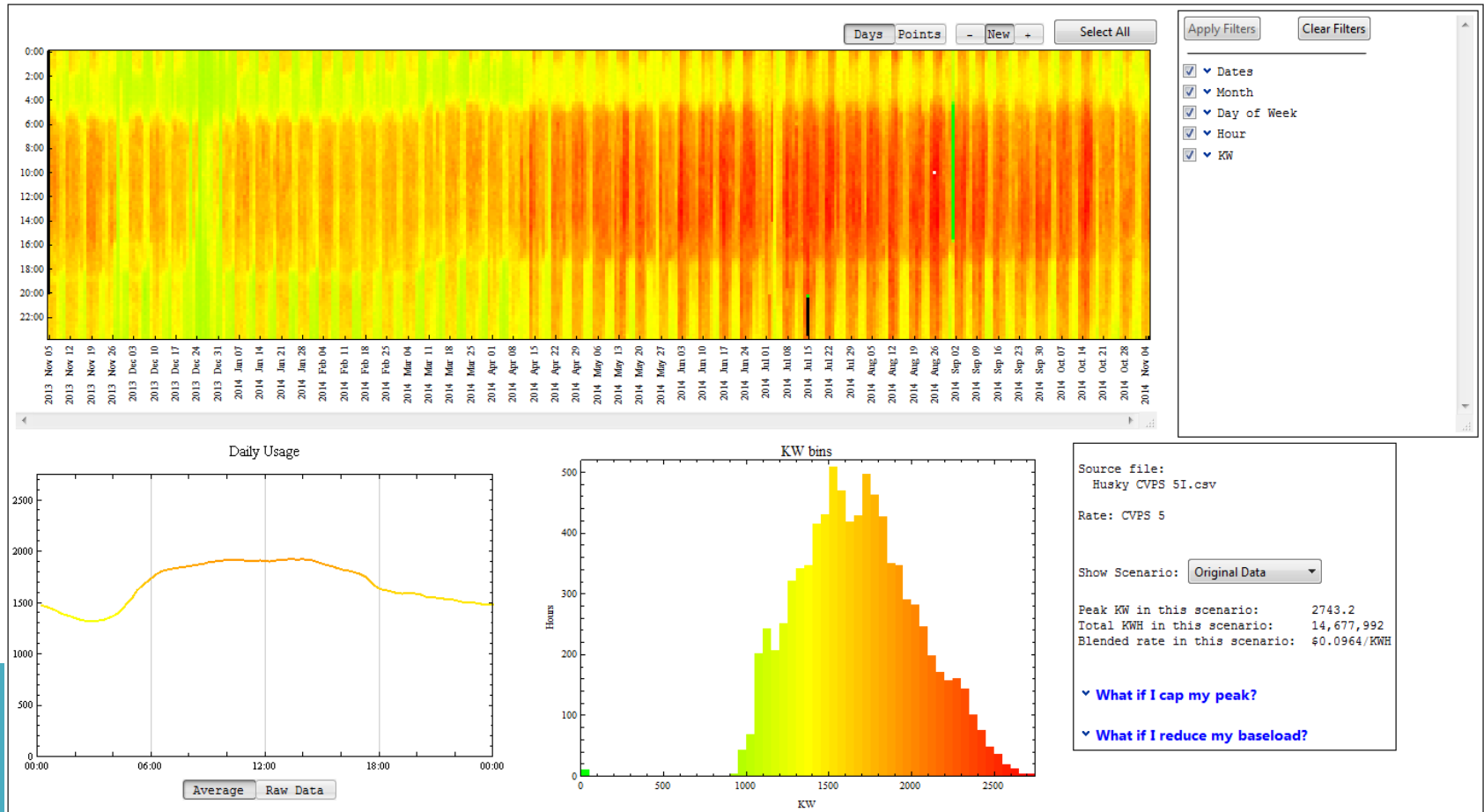
Before



After

Data Analysis Example

- ▶ Viper tool for analyzing data – tells us where high energy usage occurs



Preventive Maintenance Pilots

Steam Trap Program

- Organize with multiple building teams
- Coordinate an audit during heating season
- Analyze for energy savings
- Incentivize Repairs
- Average Simple Payback less than 2 years

Compressed Air Pilot

- First time program at Museum in DC
- ASHRAE level 2 audit with focus on compressed air leaks
- Measure for energy savings



DCSEU and Federal Agencies

- ▶ 105 Completed Projects since FY 2012
- ▶ 71,000 MWH in Electric Savings
- ▶ 437,000 MMBTU in Gas Savings
- ▶ 1.4 billion lbs. of CO₂ Prevented
- ▶ Lifetime Energy Cost Savings over \$100 million



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