



# Pursuing Demand-Side Management in an Era of Increasing Complexity and Diverse Demands

## District Department of the Environment

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# DC's Demand-Side Management Programs

## DC's DSM programs seek to

- Facilitate citywide adoption of energy efficiency and renewable energy practices
- Provide incentives to improve energy efficiency in the residential, commercial, institutional, government, and transportation sectors
- Reduce fossil fuel emissions, green house gases and maximize benefits for communities.



# Old Setup

## Retail Competition and Consumer Protection Act (1999)

- Two Funds under Retail Competition Act
  - ❑ **Reliable Energy Trust Fund (RETF)** – Electricity (energy efficiency and renewable energy)
  - ❑ **Natural Gas Trust Fund (NGTF)** – Gas (energy efficiency)
- Administered by PSC
- PSC appointed DDOE to implement

# Programs Operated by DDOE Under RETF and NGTF

- RETF
  - Weatherization and Rehabilitation Program
  - Weatherization Rehabilitation Asset Preservation Program
  - Home Energy Rating System
  - Small Business Energy Efficiency Program
  - Government Buildings Energy Efficiency Program
  - Weatherization Plus Program
  - Residential Aid Discount Expansion Program
  - Residential Aid Discount Arrearages Retirement and Education Program
  - Low Income Appliance Replacement Program
  - LIHEAP Extension and Education Program
  - Affordable Housing Energy Efficiency Rebate Program
- NGTF
  - Residential Essential Service Expansion and Awareness Program
  - Residential Weatherization and Efficiency Program
  - Heating System Repair, Replacement, and Tune-Up Program
  - Energy Awareness Campaign
  - Saving Energy in D.C. Schools

# New Setup

## Clean and Affordable Energy Act of 2008

- Amended the Retail Competition and Consumer Protection Act of 1999 to eliminate the Reliable Energy Trust Fund (RETF) and Natural Gas Trust Fund (NGTF)
- Established the Sustainable Energy Trust Fund (SETF), and the Energy Assistance Trust Fund (EATF), assessments on sales of electric and natural gas utility companies
- Created the District of Columbia Sustainable Energy Utility (DC SEU)

# DC Sustainable Energy Utility

## Objective

- To design and implement energy efficiency and renewable energy programs that serve a variety of end-use sectors in the District

## Term

- One year with six one-year extension options

## DC SEU Budget

- FY 2012: \$15M                      FY 2013: \$17.5M                      FY 2014+: \$20M

## Funding Source

- Sustainable Energy Trust Fund (\$.014 per-therm; \$.0015 per-kWh)

## Role of DDOE

- Monitoring and oversight of SEU's activities and performance

## Role of SEU Advisory Board

- Provide advice, comments, and recommendations to DDOE and District Council regarding the SEU contract

# DC SEU Contract

- **Performance-based** so contractor will receive financial incentives for meeting/exceeding the following performance benchmarks:
  - ✓ Reduce per-capita **energy consumption**
  - ✓ Reduce growth of **peak electricity demand**
  - ✓ Increase **renewable energy** generating capacity
  - ✓ Improve energy efficiency of **low-income housing**
  - ✓ Reduce energy demand of **largest energy users**
  - ✓ Increase number of **green-collar jobs**
  
- **Efficiency Programs must pass societal-benefit test**



# Contractual Requirements

Measure	Benchmark
Low-Income spending	30% minimum
Green jobs	33 FTE, Year 1; 66 FTE, Year 2; 77 FTE, Year 3; 88 FTE thereafter
CBE spending	35% Year 1 minimum; 50% minimum thereafter
District resident jobs	51% minimum (First Source Agreement)
Energy savings	1% per year after start-up
Renewable Energy	Implement cost-effective program



# Balanced Portfolio Approach

- Services available across all sectors, all Wards
- No single standard approach or standard result
  - Some focus more on jobs
  - Some focus more on energy savings
  - Some focus more on largest users, low-income, etc.
- Result is steady progress toward all goals

# FY 2011 Accomplishments

- 4,710 low-income multifamily residences served
- 754 small Commercial and Institutional (C&I) facilities served
- 169 single-family homes served
- 218 hot water solar collectors serving 1,837 commercial/multifamily units
- 15 Residential rooftop PV systems installed
- Lost Opportunities – DC Schools and UDC
- Successful Grassroots campaign
- 30% of the \$7.4 million budget spent in low-income areas
- 75% of all spending went to DC-based businesses

# Green Jobs & Business Development

- **330 District residents employed**
  - Temporary field staff, permanent office staff, construction workers, etc.
  - Hours totaled 28 FTEs in Living Wage+ jobs
  - 70 installers hired from DC training organizations
- **Recruited, hired, trained, and now mentoring a committed and talented DC SEU staff**
- **16 local contractors hired and trained in energy efficiency work**
- **Supply chain established**



# FY 2012 Plans

Transition to comprehensive initiatives using market-based approach

- **Stimulate private sector with investments in energy efficiency**
  - Contractors, customers, and capital
  - Leverage financial and other resources
  - Personalized account management
  
- **Services**
  - Technical assistance
  - Custom incentives
  - Market opportunities



# FY 2012 Programs

## **Low-Income**

Multifamily: Comprehensive; Property Manager Direct Install; Leveraging Low-Income Partnerships  
Food Bank CFL distribution  
Community outreach and education  
Small-scale solar

## **Non-Qualified Residential**

DC Home Performance with ENERGY STAR®  
Efficient products  
Retail lighting  
Retail appliances  
Community outreach and education  
Non-qualified multifamily  
Renewable energy—risk reduction strategies for power purchase agreement

## **Commercial and Institutional**

Commercial prescriptive rebates: HVAC; Food service; Lighting  
T12 Blitz  
Commercial custom: Account management  
Design / analysis



# Benefits of this Model

- Instrumental in implementing EERE programs across all sectors and all Wards of the District
- Facilitate and enhance the education, awareness and outreach to District residents and businesses
- Creating the framework for a cleaner, greener, healthier city
- Requires energy and socioeconomic goals which stimulate the local economy and local business development
- Market-based model
- Evidence that this model works.





# Contact

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