



DDOE

DISTRICT DEPARTMENT
OF THE ENVIRONMENT

ENERGY OFFICE

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Energy Conservation and Efficiency in the Commercial/Industrial Sector

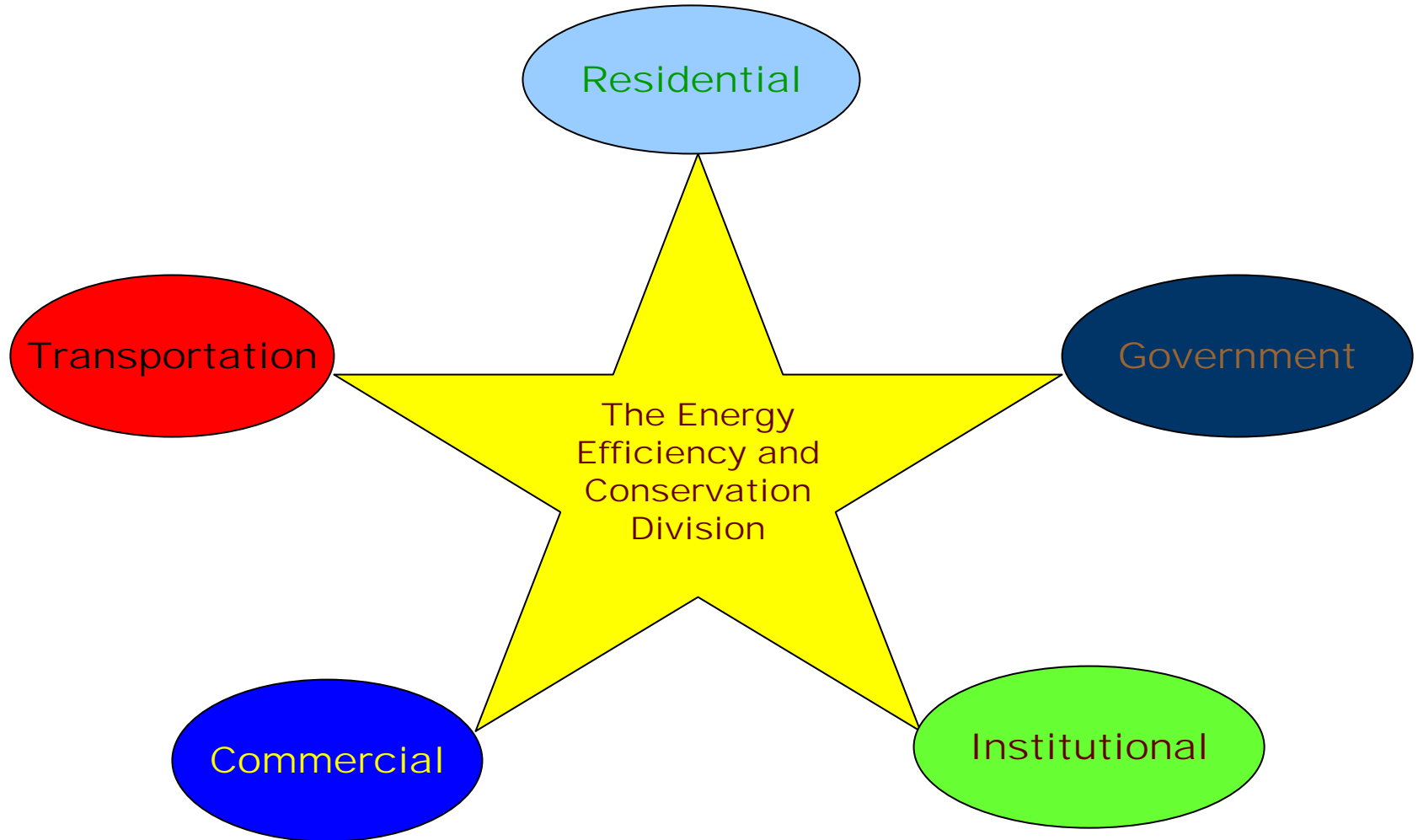
- The commercial/Industrial sector is the largest user of electricity and natural gas in the District of Columbia and, as such, represents a major opportunity for helping the District achieve a sustainable energy position over the long term.
- Education and motivation are the key requirements, and building professionals, tenants and property managers need to be well-versed on the advantages of energy conservation and usage in order to become proponents of such measures.
- Building developers/owners and large corporations need to be motivated to renovate and construct commercial buildings that meet and exceed energy-related building codes.



Energy Efficiency Conservation Division (EECD)

- The EECD is charged with providing conservation and energy efficiency services to a variety of end-use sectors in the District of Columbia.
- EECD serves on the front lines in the agency's drive to make "DC Energy Efficient".
- Through the implementation of a variety of energy efficiency programs, the EECD serves the following five end-use sectors:

The Five Major Sectors



Energy Efficiency Conservation Division (EECD)

- EECD administers eight energy efficiency programs:
- 1. Home Energy Rating System
 2. Affordable Housing Energy Efficiency Program
 3. Heating System Repair/Replacement Energy Efficiency Program
 4. Weatherization Plus Energy Efficiency Program
 5. Low-Income Appliances Replacement Program
 6. Weatherization Rehabilitation Energy Efficiency Program
 7. Institutional Energy Efficiency Program
 8. Small Business Energy Efficiency Program

Institutional Energy Efficiency Program (IEEP)

- This program provides matching grants to assist schools/universities to identify and install energy conservation measures in their facilities.
- In the first year the program provided matching grants for 10 technical assistance (TA) studies to identify cost-effective energy efficiency retrofits.
- In the second year, the program made 5 grant awards for the installation of Energy Conservation Measures (ECM) identified in the technical assistance studies in year 1 and funds were also awarded for 3 additional TA studies.

Institutional Energy Efficiency Program (IEEP)

- Table 1 below shows the estimated kWh savings, kW reduction, dollar savings and costs for IEEP

Table 1 Summary Evaluation Statistics for SBEEP	Energy Reduction		Present Value of Savings (000)	Efficiency Measure Costs (000)	Program Costs (000)
	MWH	MW			
Schools/Universities	2,677.5	0.177	2,346.3	717.3	81.1

Institutional Energy Efficiency Program (IEEP)

- Table 2 below shows the calculation of the Benefit/Cost Ratio for IEEP.

Table 2 All Ratepayers Test	All Ratepayers Test
Benefit	\$ 2,346,340
Costs	\$ 798,327
Benefit/Cost Ratio	2.94



Small Business Energy Efficiency Program (SBEEP)

- The Small Business Energy Efficiency Program is a grant program that provides technical and financial assistance to help all qualified District of Columbia for-profit small businesses make energy efficiency upgrades in their establishments.
- All small businesses that have no more than 30 full-time employees and less than 1 million dollars in annual revenue are eligible to apply.

Small Business Energy Efficiency Program (SBEEP)

- SBEEP, now in its third year of operations, started as a pilot project that involved 160 on-site energy audits and installation of energy upgrades in 128 small businesses in D.C.
- Since the program got rolling, there have been more than 450 energy audits and retrofits.
- Table 3 shows the estimated kWh savings, kW reduction, dollar savings and costs for SBEEP during the pilot phase.

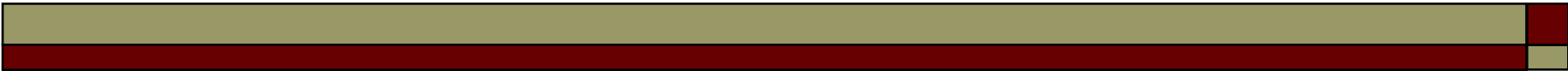
Small Business Energy Efficiency Program (SBEEP)

Table 3 Summary Evaluation Statistics for SBEEP	Energy Reduction		Present Value of Savings (000)	Efficiency Measure Costs (000)	Program Costs (000)
	MWH	MW			
Small Businesses	871.0	0.308	1,004.8	211.6	320.6

Small Business Energy Efficiency Program (SBEEP)

- Table 4 below shows the calculation of the Benefit/Cost Ratio

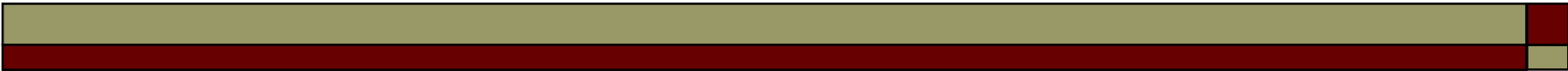
Table 4 All Ratepayers Test	All Ratepayers Test
Benefit	\$ 1,004,834
Costs	\$ 532,209
Benefit/Cost Ratio	1.89



Proposed New Commercial Building Construction Energy Efficiency Program

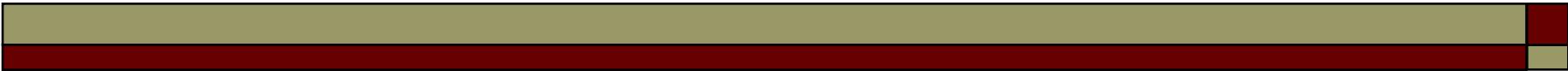
This program is designed to:

- ❑ provide technical and financial incentives for the installation of selected electrical energy efficiency equipment
- ❑ increase the number of commercial designers and builders who specify and construct higher-than-average energy efficient buildings
- ❑ offer education and training workshops to assist building operators in maintaining building efficiency
- ❑ and increase the number of new commercial buildings that exceed the current District of Columbia Energy Conservation Code.



Proposed New Commercial Building Construction Energy Efficiency Program

- ❑ Commercial facilities usually provide great opportunities for cost-effective energy efficiency investments, and a reduction of carbon footprints.
- ❑ An eligible building project must have 20,000 gross square feet of conditioned space, and should not be beyond the schematic design phase.
- ❑ Project selection is determined by a review board made up of building professionals and engineers.



Proposed New Commercial Building Construction Energy Efficiency Program

- Selected projects will receive a building commissioning study to evaluate energy-saving options available using an integrated, whole building design approach.
- DDOE/EO will then offset 100 percent of the incremental costs to a maximum of \$100,000 per project for the purchase and installation of equipment with higher-than-standard level of energy efficiency.
- About 10 projects per year will be funded under this program.



The Energy Office

- At present, DDOE/EO does not have the resources (funds or staff) to provide support and oversight to 18,000 business establishments that should become active, committed partners to implementing measures that reduces energy consumption and preserve the environment.
- Consequently, the programs presented here today are focused on the areas where DDOE/EO can use existing resources to achieve the greatest impact.



Thank you!