

# NYSERDA Commercial and Industrial Programs

Existing Facilities

New Construction

Transportation

# NYSERDA Roles

- **Administrator - Design & Implement Programs**

Current Programs:

- SBC
- RPS
- Utility Rate Cases
- DOE SEP

Future Programs:

- EPS
- Lt. Gov. Task Force
- RGGI
- CAIR

- **Support Regulators**

- State Purchasing/Appliance Standards
- State Energy Code
- Green Building Tax Credit

- **Facilitator**

- ESCO's
- Infrastructure Development
- \$125 Million tax exempt leasing

- **Policy Implementation & Assistance**

- Gov. 15 x 15
- Executive Orders
- NYC 30 x 30



# Energy Efficiency

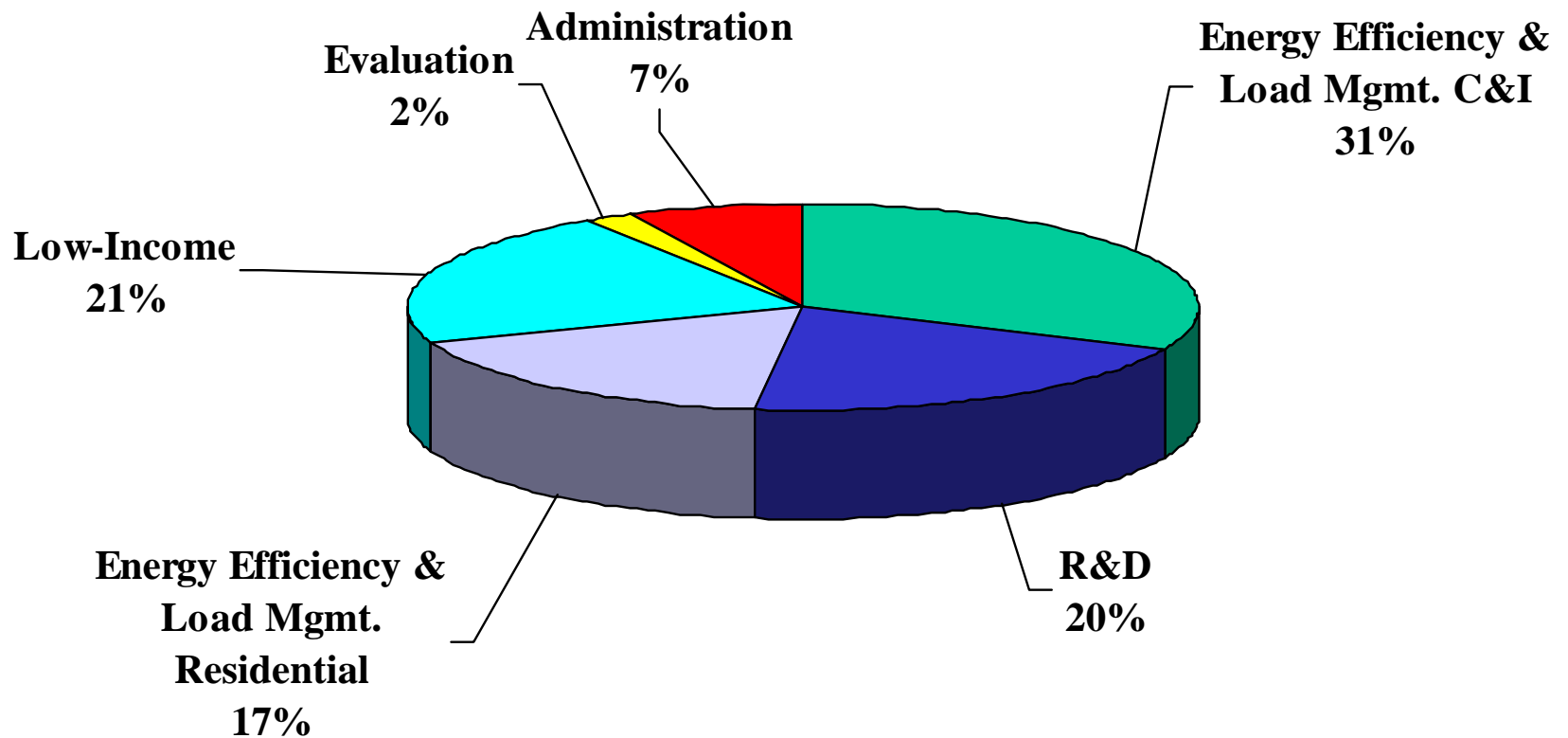
- **Resource Acquisition**
  - Electricity – kWh
  - Gas/Oil – Btu
  - Summer peak power – kW
- **Transform Markets for Systems and Products**
  - Overcome barriers/lasting change
  - Capture lost opportunities
  - Coordinate with regional/national efforts
  - “Upstream” initiatives
- **Foster Energy Services Industry**
  - ESCOs, A&E, HVAC, Lenders
  - Expand customers served
  - Overcome aversions to risk and lack of \$
  - Establish a vigorous industry



# New York Energy \$mart<sup>sm</sup> Program

- Regulatory Order of the NYS Public Service Commission
- NYSEERDA as the state-wide administrator
- 13-year program (thru June 2011); Average budget of \$130 million/year
- Public purpose goals: energy efficiency, cleaner environment

# New York Energy \$mart<sup>sm</sup> 2007 Budget



# New York Energy \$mart<sup>sm</sup> Benefits

## “Small Charge, Big Change”

- Saving money, energy, jobs and the environment
- In first 6 ½ years of NY Energy \$mart:
  - \$198 m in annual energy savings realized
  - 4200 jobs retained and created
  - \$2.50 leverage for every program \$1
  - 1400 GWh/yr saved = 230,000 households
  - 860 MW of demand reduced
- Annual emission reductions
  - 1280 tons of NO<sub>x</sub>
  - 1 m tons of CO<sub>2</sub> = 200,00 fewer cars



# Con Edison Electric Rate Case

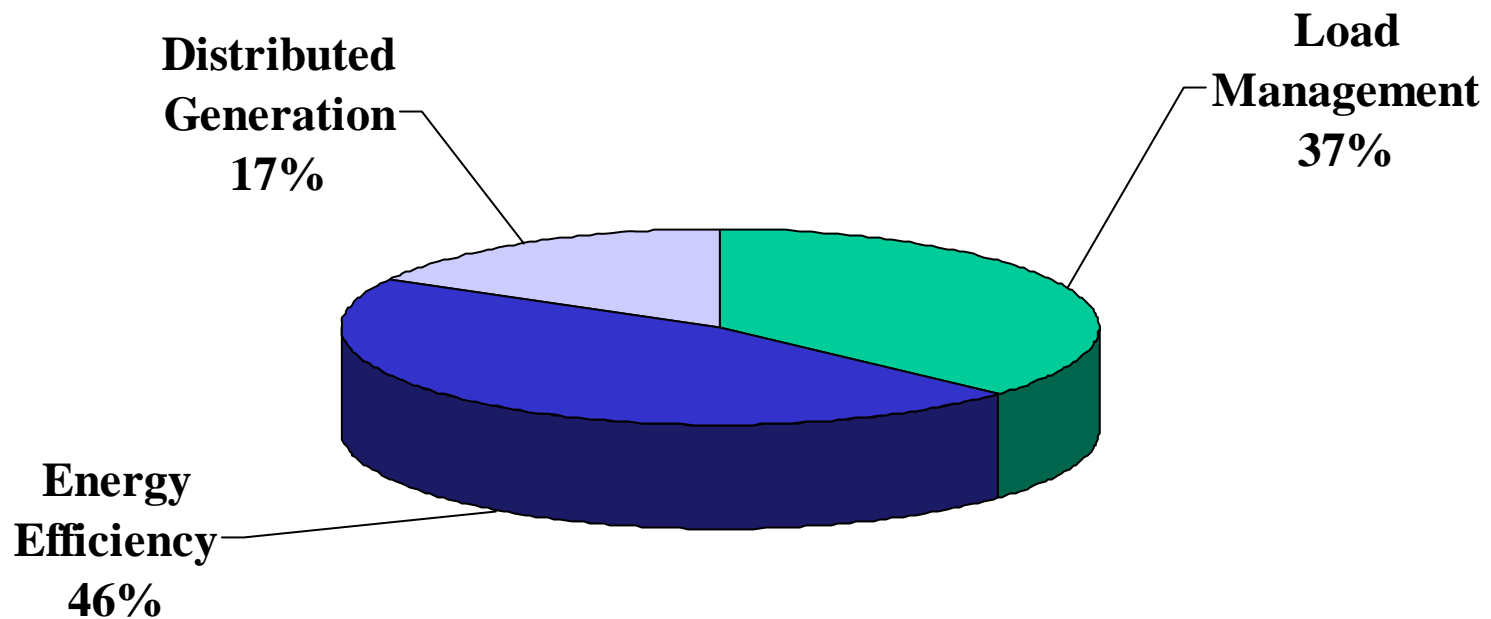
## Con Edison

- Targeted Program
- \$112 M
- 150 MW by 2008

## NYSERDA

- System Wide Demand Reduction
- \$112 M
- 150 MW by 2008

# System-Wide Demand Reduction (\$56 m/yr)



## **Gas Efficiency Program for Con Edison Commercial Customers**

- \$4,000,000 for Installations & Studies (05-08)
  - Boilers & Water Heaters
  - Space Heating
  - Cooking
  - Chiller Replacements
  - CHP Upgrades
  - Pipe & Tank Insulation
  - Industrial & Custom gas improvements

# Energy Efficiency and Load Management Programs

## All Facilities

- Loan Fund

## New Facilities

- New Construction/Green Buildings

## Existing Facilities

- Enhanced Commercial/Industrial Performance Program
- FlexTech/Technical Assistance
- Peak Load Management Program
- Energy Smart Focus on sectors



# New Construction Program

## Objective:

- Transform building design and construction

## Services:

- New construction and substantial renovations
- Financial incentives to offset costs of energy-efficient equipment and systems
- Technical assistance
- Commissioning



## New Construction Program

- Impacting 11% of all new commercial construction in NYS
- 1,200 projects, over 120 million square feet of floor space
- Average savings 20-25% over Energy Code
- 200 “green” projects
- Cost effective, TRC = 3.4
- High “spillover” impacts on other projects



# NYS Department of Environmental Conservation Headquarters

## Energy Features

- High performance glazing
- Reduced lighting power densities
- High-efficiency chillers
- Variable speed fans and pumps
- Building commissioning

## Green Features

- Urban redevelopment
- Certified wood
- CO<sub>2</sub> monitoring
- High recycled content materials
- Low-emitting materials



# Enhanced Commercial/Industrial Performance Program (ECIPP)

Financial incentives for existing facilities:

- Tier I: Incentives for pre-qualified energy efficiency measures.
- Tier II: Performance-based incentives for improvements based upon an engineering analysis.
- Tier III: Performance-based incentives to contractors through a Standard Performance Contract (SPC). Includes CHP systems in Con Edison service territory.

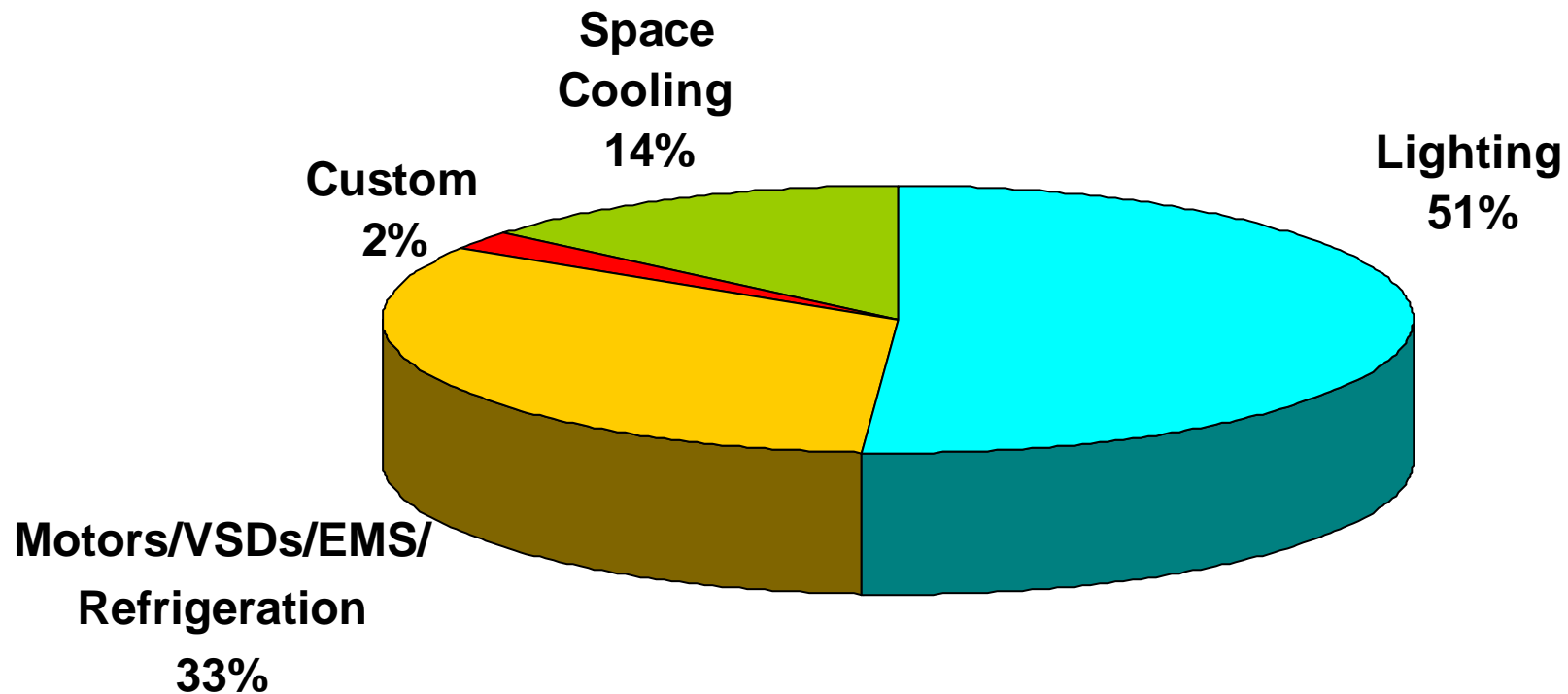


## ECIPP Status

- 990 Projects with more than \$105 million in total incentives
- Installation complete on 700 projects delivering 140 MW of peak demand reduction
- Incentives averaging 18% of project cost
- Total investment in NYS exceeds \$575 million
- 180 different ESCOs participating

# Enhanced Commercial/Industrial Performance Program

Dollars Awarded by Measure  
\$105 Million



# FlexTech / Technical Assistance

**Objective:** Establish network of Technical Assistance providers

- Feasibility Studies
- Management and Planning
- Energy Procurement
- Retrocommissioning
- CHP
- Renewables
- Load Curtailment



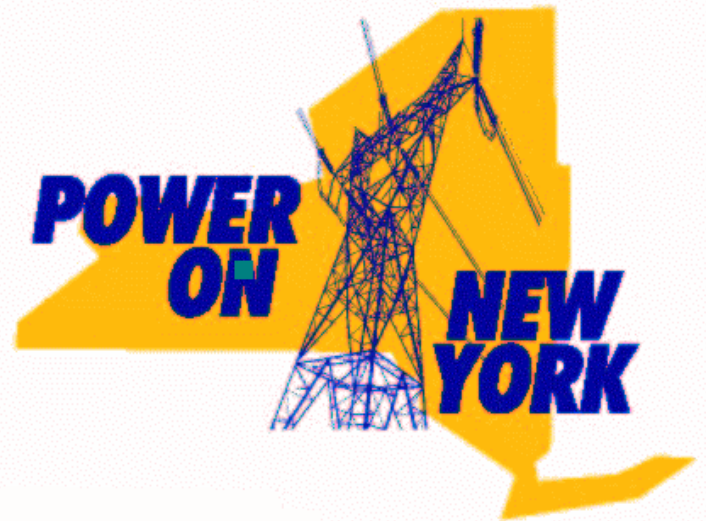
# FlexTech

- Over 3,900 Businesses and Institutions served
  - Over 220 TA providers
- Stretches valuable public funds
  - 1 kwh saved = \$0.003 public funds spent
- Leverages economic development
  - Leveraging \$17 for each \$1 SBC invested
- CHP, Industry, Water, Ag program components



# Peak Demand Reduction

- **Program Objectives**
  - Drive market for products and services
  - Control and reduce loads for specific NY electric utility systems
  - Accelerate replacement of old, inefficient products
  - Enable customers to participate in NYISO or TO emergency programs
  - Educate public on energy efficiency and peak load opportunities



# Peak Load Reduction Program



General Electric Company



- Permanent Demand Reduction
- Load Curtailment and Shifting
- Distributed Generation
- Interval meters

Leading to nasriffs

Deutsche Bank



KOHL'S



ROLEX

# Aggregated Demand Reduction

- 4-6 Implementation Contractors
- Demand Response, Permanent and DG projects
- Contractors commit annual MW reductions
- Multi-year performance-based contracts

# New York Energy \$mart<sup>SM</sup> Loan Fund

## Objectives:

- Facilitate energy-efficiency improvements through reduced-interest financing.
- Enlist lenders as promoters of energy-efficiency projects.

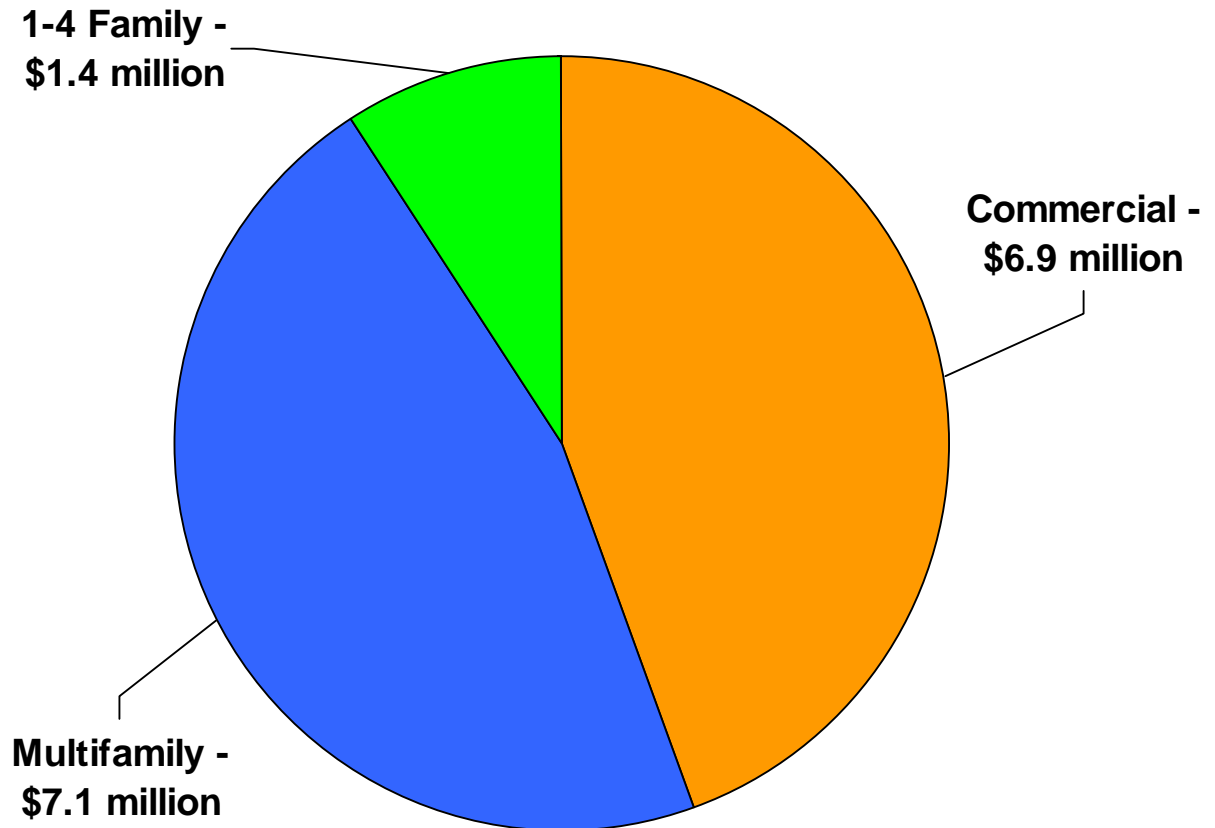
## Number of Participating Lenders: 70

- Includes statewide lenders such as HSBC, M&T, 1<sup>st</sup> Niagara, Citizens Bank

# New York Energy \$mart<sup>SM</sup> Loan Fund

## Total Dollars Spent

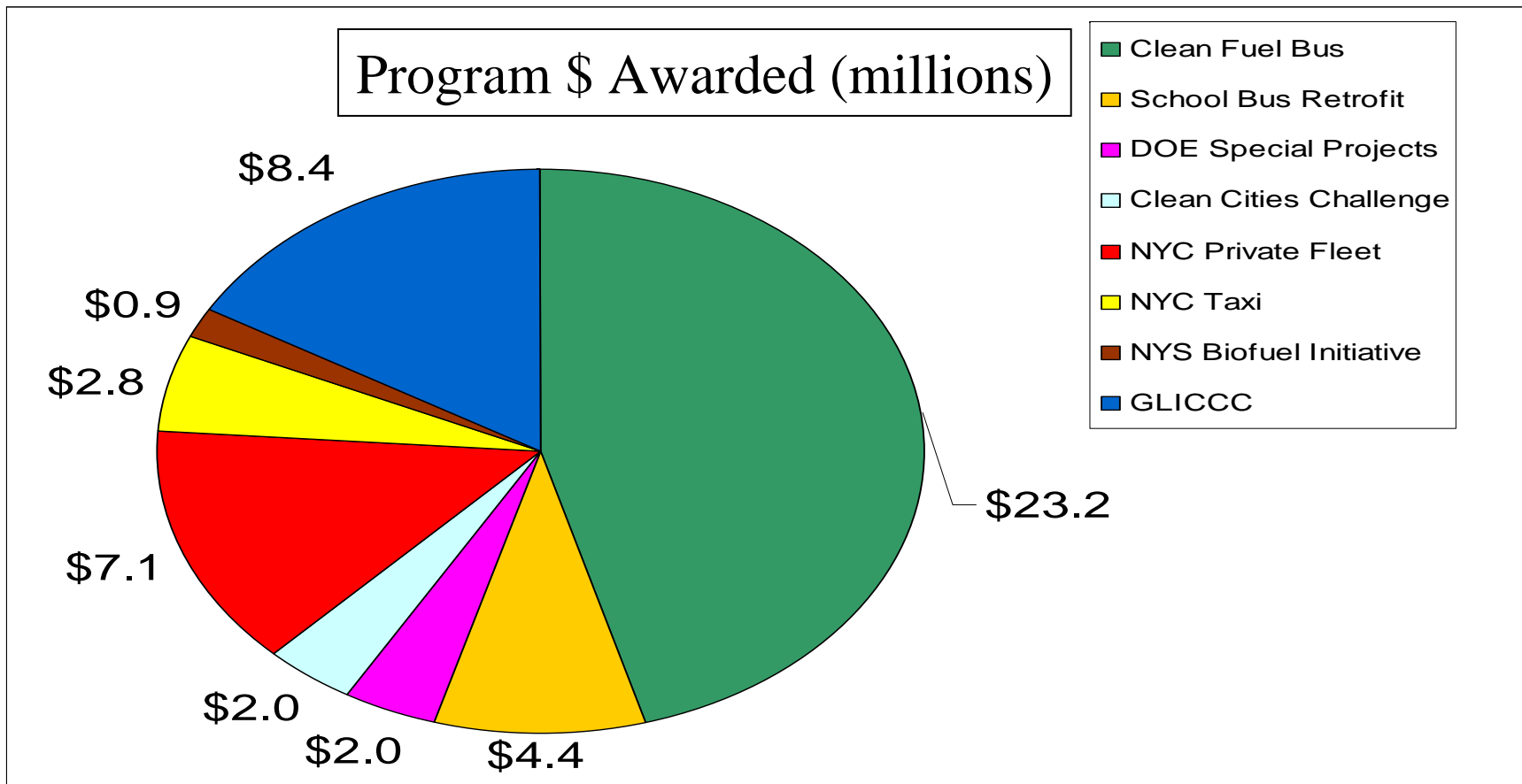
- \$15 million in interest reduction payments to lenders has leveraged \$113 million in loan activity



# Alternative-Fuel Vehicle Program

- Financial assistance and technical information for AFVs in fleets and fueling facility or charging stations.
- AFVs - vehicles powered by natural gas, propane, and electricity, including certain hybrid-electric vehicles.
- Encourage bio-fuels such as ethanol and biodiesel.
- Emission reduction technologies and anti-idling technologies for diesel vehicles.
- Focus on emission reductions, petroleum displacement, training and new AFV technology deployment.

# Alternative Fuel Vehicles Program Status



# Energy Smart Focus Schools Program

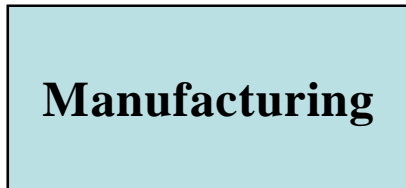
- Over 1,000 K-12 School Projects
- 30 Million Square Feet Benchmarked
- \$32 Million in Direct Incentives
- Two ENERGY STAR Awards
- 50 PV Demonstration Projects
- Over 2,200 Buses Converted to Other Fuels or Reduced Emissions
- Innovative Education Programs
- Expansive Training



# Assistance Provided to Market Players by NYSERDA

## Upstream

Industry  
Processing  
Trade Associations



RD&D  
Proof of concept  
Product development  
Demonstration  
Testing  
Manufacturing

## Midstream

Wholesalers  
Energy companies  
Equipment suppliers  
Trade professionals



Information  
Training  
Financial incentives  
(sales and stocking)  
Marketing assistance

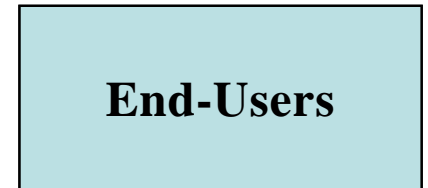
Big box  
Small retail  
Mail order  
E-commerce



Information  
Training  
Financial incentives  
(sales and stocking)  
Marketing assistance

## Downstream

Consumers  
Final consumption



Financial incentives  
Technical assistance

## New York Energy \$mart<sup>SM</sup> Business Partners

- Partner with manufacturers, distributors, retailers, trade associations, and organizations involved in energy-efficient products and services.
- Focus on highly efficient, under-utilized, and newly available technologies and services.
- Business Partners work with NYSERDA to incorporate energy efficiency into their business models, communicate results, and provide Program outreach.

# CONTACT NYSERDA

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