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Severe Weather and Critical Infrastructure Resilience March 13, 2013

#### DC is a Sustainable Leader

230+ LEED certified buildings; 300+ ENERGY STAR®

District Government buying 100% green power

Bag tax reduced disposable bag use by 60%

Almost 1,500,000 square feet of green roofs

**Largest bikeshare in U.S. (19,000+ members)** 

50% of District trips by transit, walking, or bike







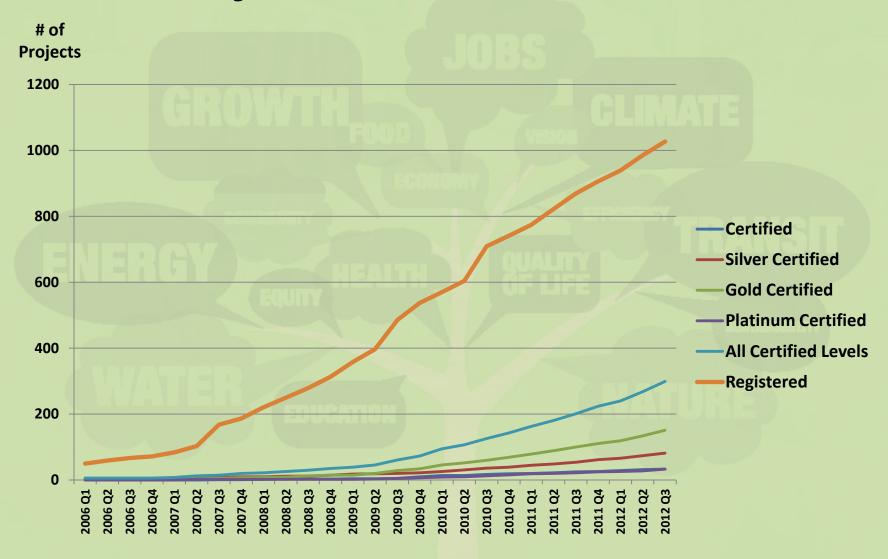
#### **Green Building Law**

- Green Building Act of 2006 Requires LEED certification for private and public sectors
- Clean & Affordable Energy Act of 2008 —Requires Energy Star benchmarking for private and public sectors; creates DC SEU; increase RPS
- Energy Efficiency Financing Act of 2010 Authorizes financing of water, energy efficiency and renewable energy projects (PACE)





## **LEED Project Construction**

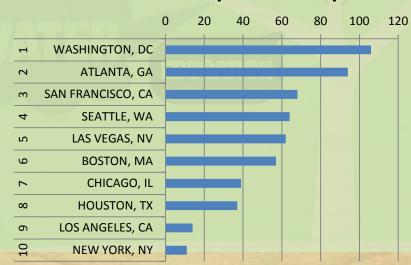


# **LEED Project Construction**

#### **Top 10 Cities in Total LEED Certified Space**

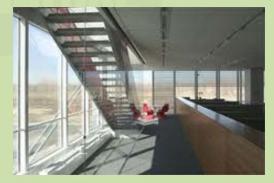


#### **LEED Certified Space Per Capita**









## **Green Building Policies**

- Green Construction Codes moving to ICC 2012 codes by summer 2013
- Stormwater Regulations in response to EPA MS4 permit, requiring on-site retention and management
- ▶ Green Area Ratio proposed in zoning rewrite to require green practices over parcels
- ▶ Current and Future Incentives DC SEU, Renewable Energy Incentive Program, RiverSmart Program, low-income weatherization, brownfields redevelopment



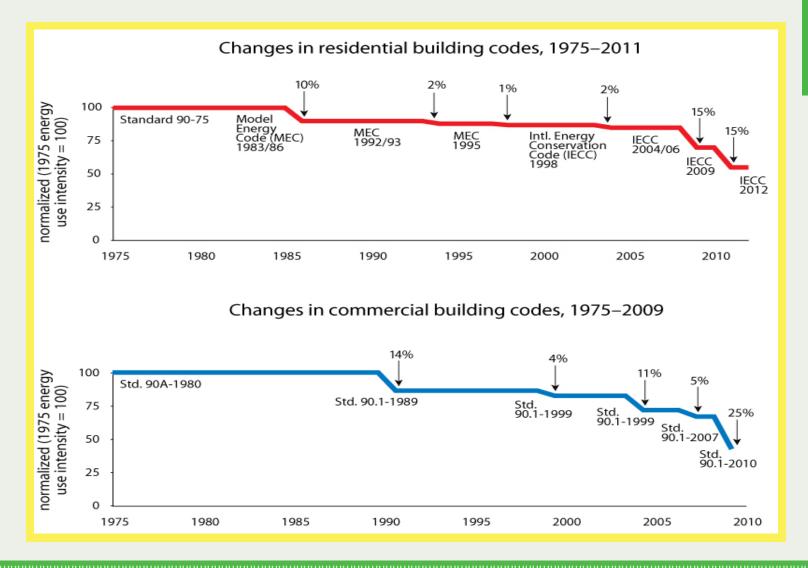
## **Green Building Policies**

Scope – all commercial new construction and level III alterations 10,000 SF+ and all multifamily projects 10,000 SF+ and 4 stories+



- LEED-like sections
  - Site Development and Land Use
  - Material Resource Conservation and Efficiency
  - Energy Conservation and Efficiency
  - Water Resource Conservation and Efficiency
  - Indoor Environmental Quality and Comfort
  - Commissioning
- Alternative Compliance Paths LEED, Enterprise Green Communities, ASHRAE 189.1, National Green Building Standard (ICC 700)

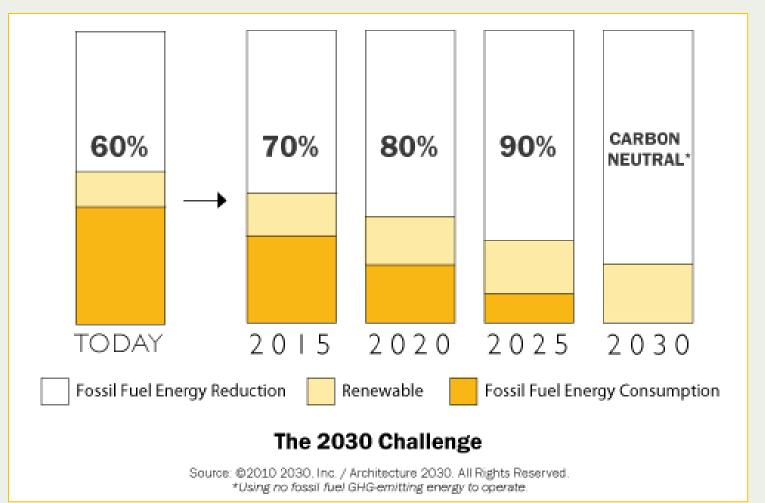
#### **Energy Conservation Codes**

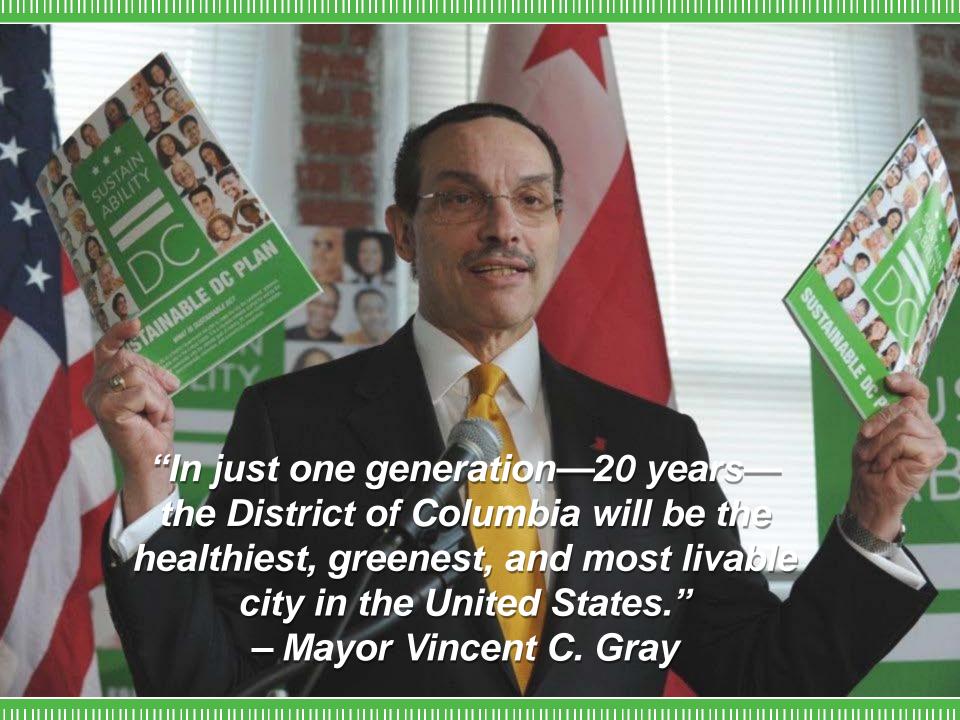




#### **Energy Conservation Codes**







### From Vision to Reality





# **Cutting Edge Framework**

4 CHALLENGES	7 SOLUTIONS
<ul> <li>Jobs and the Economy</li> <li>Health and Wellness</li> <li>Equity and Diversity</li> <li>Climate and Environment</li> </ul>	<ul> <li>Built Environment</li> <li>Energy</li> <li>Food</li> <li>Nature</li> <li>Transportation</li> <li>Waste</li> <li>Water</li> </ul>

- **32** Ambitious Goals
- ▶ **31** Measurable Targets
- ▶ **143** Specific Actions short, medium and long term



#### **BUILT ENVIRONMENT 2032:**



#### **Built Environment**

Goal 4: Ensure the highest standards of green building design for new construction

**Target:** By 2032, meet net-zero energy use standards in all new construction projects.

#### **Actions:**

- Adopt latest green building code for all new construction/major renovations (Short Term)
- Update Green Building Act to require a higher level of LEED certification (Medium Term)
- Require all new buildings to be net-zero energy or net-positive (Long Term)



**ENERGY 2032:** 

Reduce energy consumption

by **50%** 

Increase the use of renewable energy

to 50%





# **CLIMATE 2032:**

Reduce citywide greenhouse gas emissions by 50%

Assess **all** new buildings and infrastructure for climate resiliency

#### **Contact Information**

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