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Greening DC Building Codes  
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# DC Greening Building Code

- DC's Green Building Act of 2006 requires the Mayor to “submit to the Council for approval construction code revisions that shall incorporate as many green building practices as practicable...”
- New DC Building Code passed by City Council December 2<sup>nd</sup> and published in DC Register on December 26<sup>th</sup>
- New building code effective immediately with a one-year transition period in which old code may still be used
- Next new DC building code must be submitted to City Council by 1/1/2010



# Removing Impediments to Greening Building

- Top Priority: Remove impediments to Greening Building
- We identified surprising few actual code impediments
- Impediments addressed in DC's new building code
  - Disconnect downspouts and retain rainwater on site
  - Waterless urinals and green piping no longer need waivers
- Some impediments are due to misinterpretation of building codes by designers, builders, officials and others
- DC OP is working to green DC Zoning Code

# New DC Codes Raise the Bar: Mandating Greener Practices

- Water efficiency (low-flow fixtures)
- DC Energy Conservation Code of 2008
  - Commercial energy efficiency requirements (ASHRAE 90.1 2007 which requires 7% more efficiency than ASHRAE 90.1 2004)
  - Residential energy efficiency (“The 30% Solution”)
- Reducing urban heat island effect (requires flat roofs be cool roofs, green roofs or limestone ballasted)

# Water Efficiency: Changes to International Plumbing Code

PLUMBING FIXTURE	MAXIMUM FLOW RATE OR QUANTITY	
	Old	New
Lavatory (private)	2.2 gpm	1.5 gpm
Shower	2.5 gpm	2 gpm
Urinal	1.0 gpf	0.5 gpf
Toilet	1.6 gpf	1.28 gpf

All major manufacturers make products meeting new standards. Many fixtures have no cost premium; others have paybacks under three years.

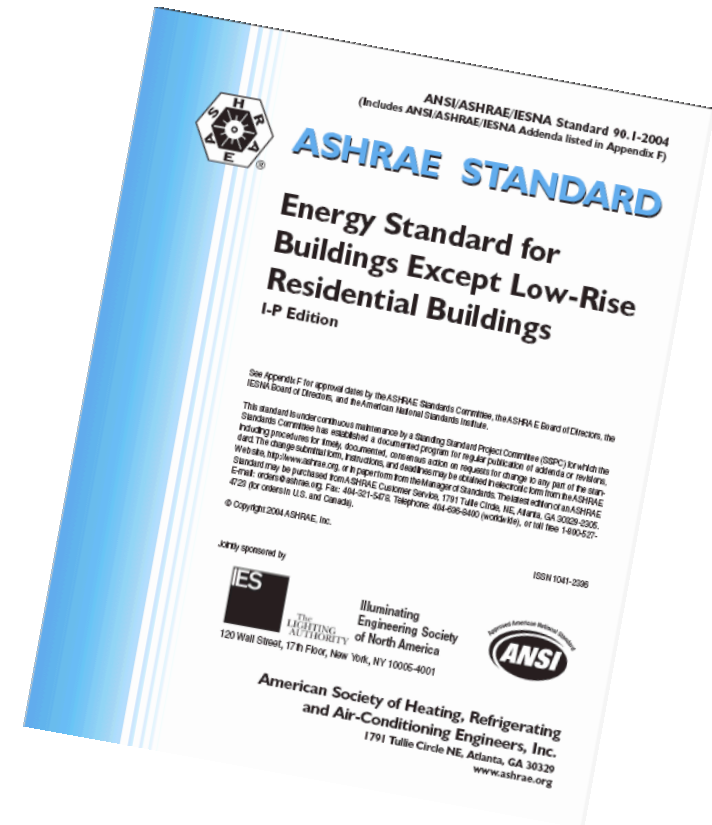
Sources: EPA WaterSense Program, NAHB, ASHRAE Standard 189.1P

# Washington's Current Commercial Energy Code

International Energy Conservation  
Code (IECC 2000)

ASHRAE Standard 90.1 1989

- ASHRAE is the American Society of Heating, Refrigeration and Air Conditioning Engineers

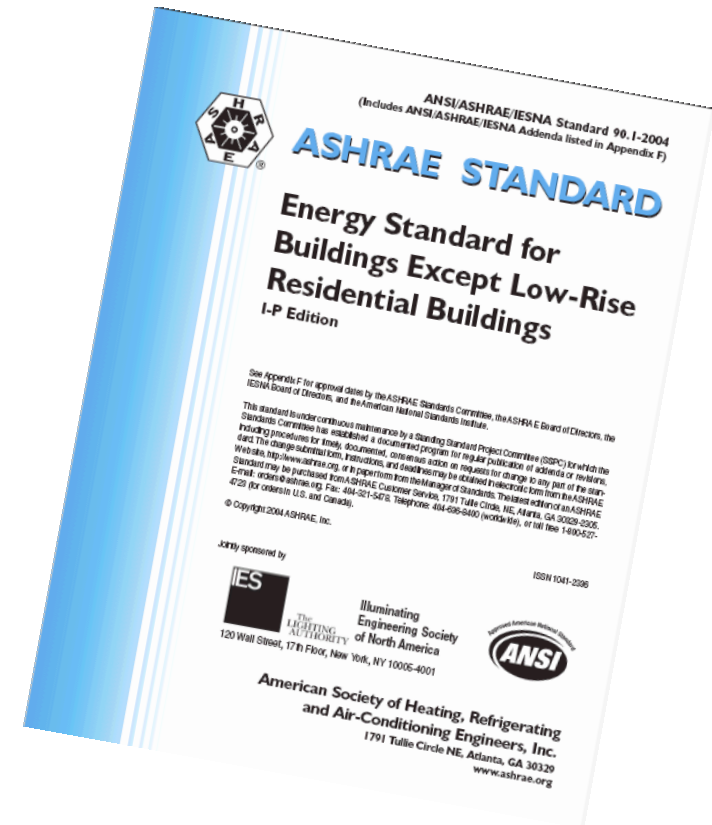


# Washington's New (2008) Commercial Energy Code

International Energy Conservation  
Code (IECC 2006)

ASHRAE Standard 90.1 2007

- ASHRAE 90.1 2007 requires +7% more efficiency than the prior version
- DC Energy Conservation Code will likely soon be improved to +30%



# Washington's New (2008) Commercial Energy Code



Major changes include:

- Lower lighting power densities (LPDs)
- Improved lighting controls
- Demand-controlled ventilation required
- Boiler efficiency improvements
- Increased fan power limitations
- More stringent opaque elements
- More stringent fenestration elements