

Arlington Initiative to
***Rethink
Energy***



**Green Buildings and
the Community Energy Plan
Arlington, VA
May 16, 2013**

Arlington's Journey – Creating & Implementing a Vision



"Smart Growth"
(1960s)

Green Building
(1999)

*Analysis of
Global Best
Practices*
(2000s)

*Arlington
Initiative to
Rethink Energy*
(AIRE)
(2007)

*Community
Energy Plan*
(2010)

Green Building Density Incentive Program: History



- **Green Building Density Incentive program began in 2000**
 - Incentive for LEED Silver only
 - Commercial office only
- **Update in 2003**
 - Included all LEED levels and all site plan projects
- **Update in 2009**
 - Adjusted bonus to reflect market transformation
- **Update in 2012**
 - Focus on energy efficiency to align with Community Energy Plan goals, minor bonus adjustment

Public Facilities -- LEED



Washington-Lee High School
(LEED-Gold)



Fire Station 3 (LEED Silver)



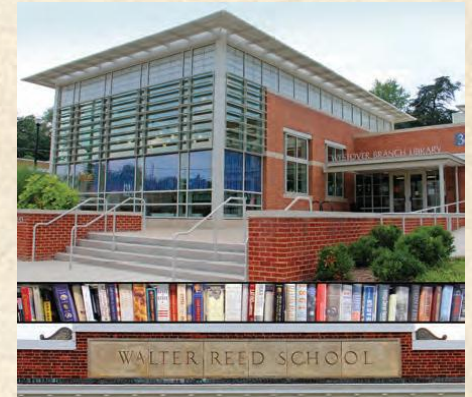
Wakefield High School
(under construction)



Walter Reed Community
Center (LEED Silver)



Langston-Brown School/
Community Ctr (LEED Silver)



Westover Reed School/
Library (LEED Silver)

Green Building Incentive Program

- Awards density for LEED certification
- Floor Area Ratio (FAR) bonus for **office** buildings:
 - 0.20 FAR (Silver + 20% energy efficiency)
 - 0.35 FAR (Gold + 20% energy efficiency)
 - 0.45 FAR (Platinum + 20% energy efficiency)
- **Multifamily residential** projects may request additional 0.05 FAR and must meet 18% energy efficiency
- Developer posts a bond that is released when the USGBC issues certification

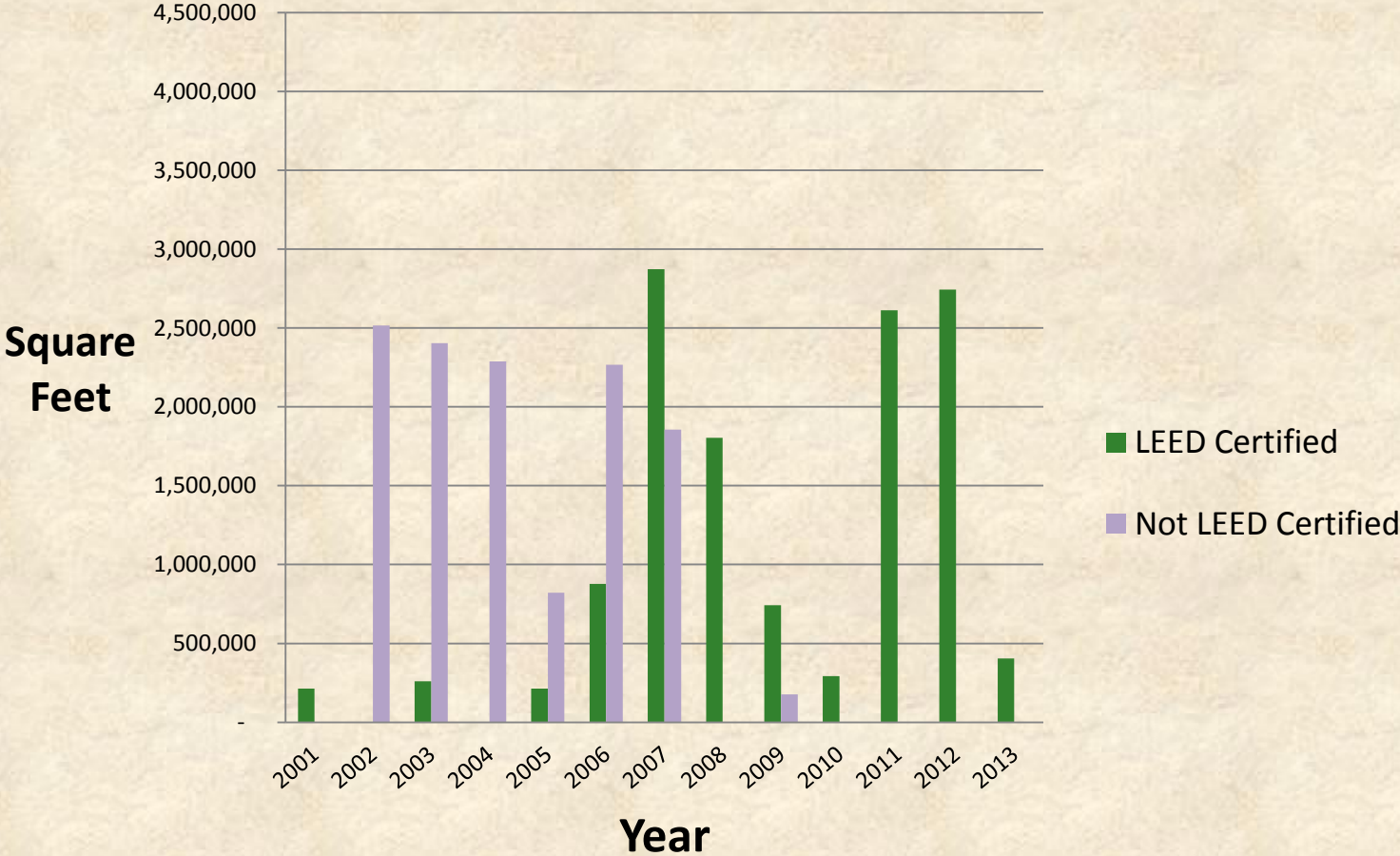


*Energy efficiency based on LEED 2009 (ASHRAE 90.1-2007)



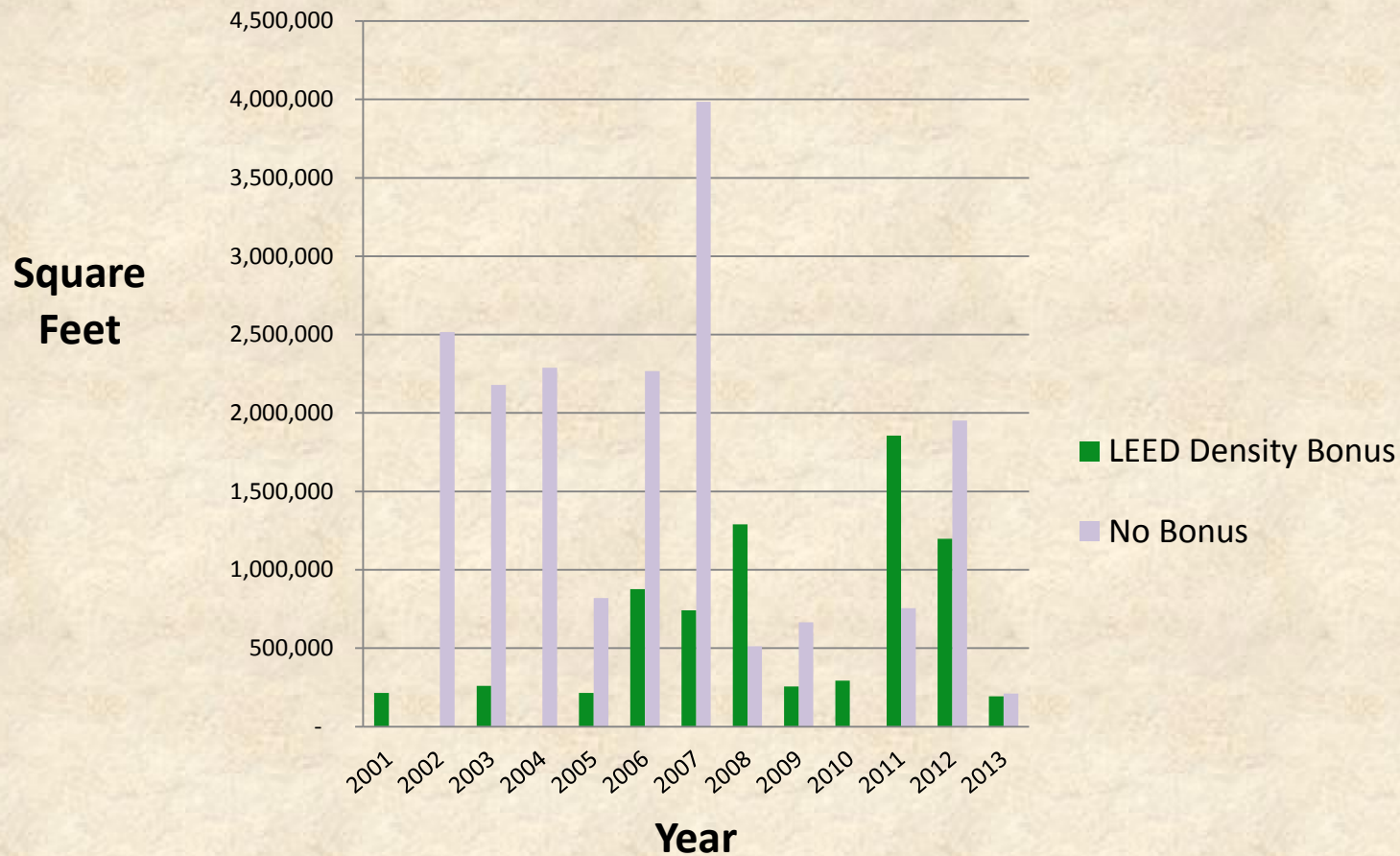
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Green Buildings Approved in Arlington





Green Building Bonus Density Approved



2012 GB Program Update: Ongoing Energy Use



- In addition to LEED certification:
 - Report energy utility data to Arlington County every year for ten years
 - Offer additional 0.10 FAR bonus for post occupancy ENERGY STAR label or LEED for Existing Buildings (LEED-EB) certification
- Evaluate policy at least every 3 years or as LEED/code standards are updated

Community Energy Plan



- Market transformation to LEED has been successful
- Retain focus on holistic “green” buildings with incentive for energy efficiency
- Focus on energy efficiency
 - New construction
 - Existing buildings

Community Energy Plan Benefits

Competitiveness

- Energy cost
- Employment
- Investment



Energy Security

- Supply security
- Supply quality
- Flexibility

Environment

- Greenhouse Gas Reduction

Community Energy Plan Goals

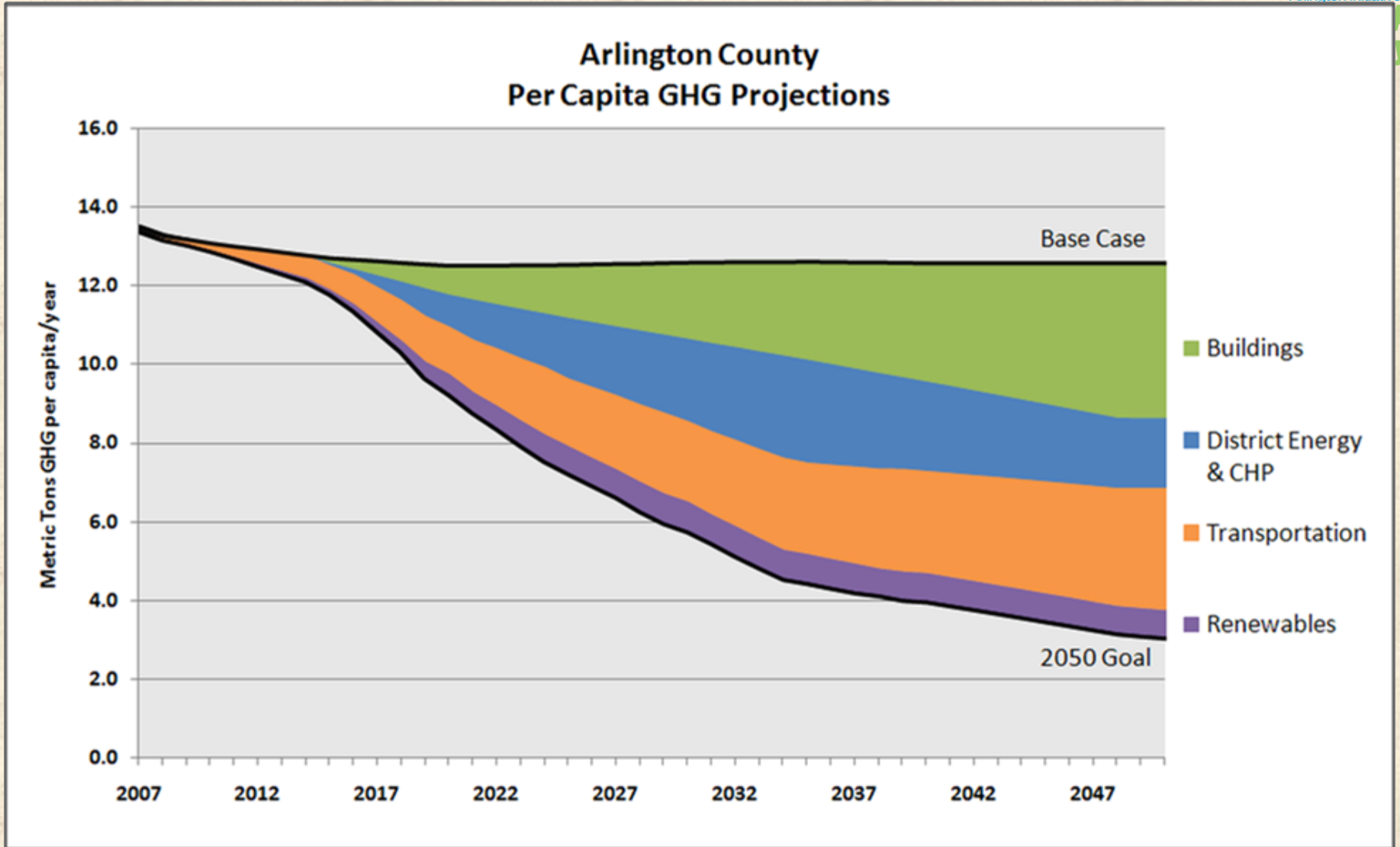
- Reduce greenhouse gas (GHG) emissions by 78% by 2050
- 2007 GHG emissions =
13.4 metric tons/per capita/year
- 2050 GHG emissions goal =
3.0 metric tons/per capita/year

Per Capita GHG Emissions

Impacts of Key Energy Policy Recommendations



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Next Steps

Buildings: Reduce Energy Use in Buildings by 55-60%

Example Programs:

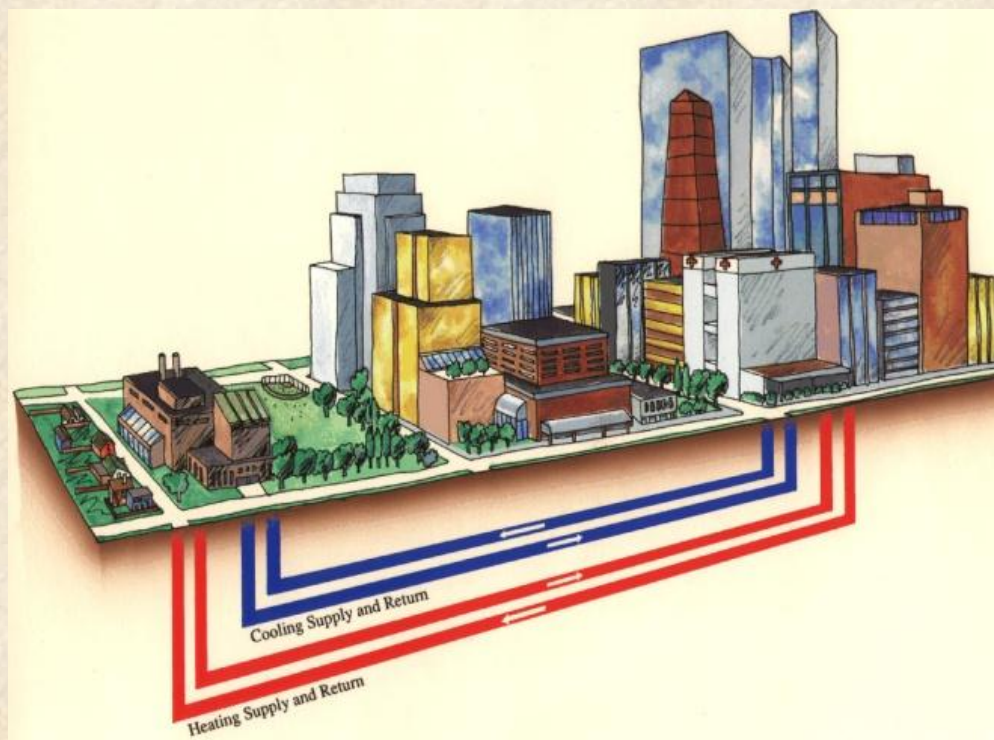
- **Bonus Density Incentive Program**
- **Lighting Incentive**
- **Energy Performance Labels**
- **Green Games**



District Energy: Facilitate District Energy in high density areas

Example Program:

- **Crystal City Integrated Energy Master Plan**





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Renewables: 160 MW of Solar PV

Example Programs:

- **Study feasibility of our target**
- **Solar installation on Central Library**



Transportation: Reduce CO₂e by ~70%

Example Programs:

- **Columbia Pike and Crystal City Streetcars**
- **Capital Bikeshare**



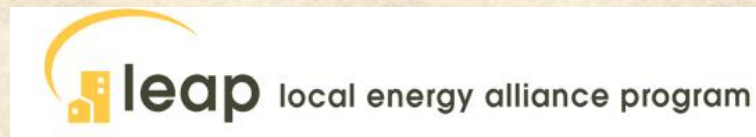
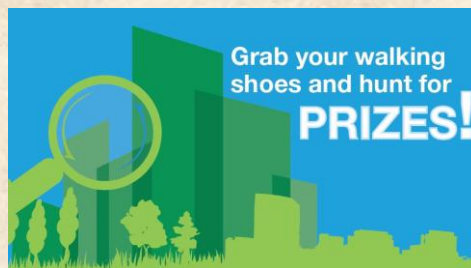
Education and Human Behavior: Ongoing Activities



- Apartment &condos
- Restaurants
- Retailers
- Office

Education and Human Behavior: Ongoing Activities

- Energy Journey
- Energy Scavenger Hunts
- Energy Jeopardy
- County Fair
- Taste of Arlington
- Green It workshops
- LEAP home energy assessments
- Social media/website



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Come Join Us!

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