





USGBC

We can make buildings  
more efficient using a  
comprehensive  
framework

- ⚙ Technology
- ⚙ Policy
- ⚙ Capacity
- ⚙ Finance

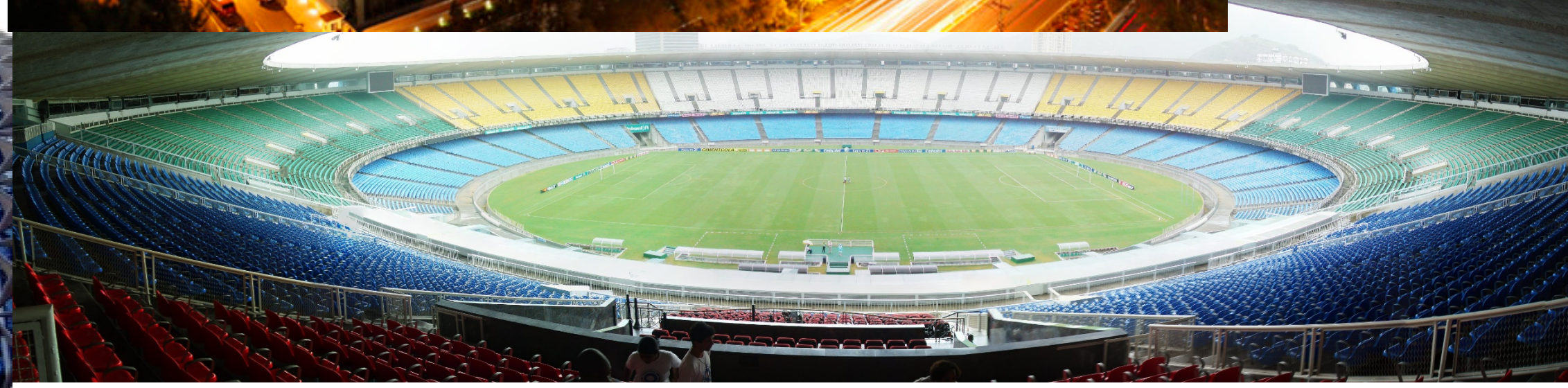


# What is Green Building?





# Buildings Around the World that Have Received a Third-Party Green Building Certification Score





# Green Building Certification Programs

## Common features

- ✓ Third party review
- ✓ Above baseline buildings
- ✓ Credits or points
  - Minimum requirements
  - Optional
- ✓ Systems updated to stay above code
- ✓ Different building types, new and existing



# Green Building Certification Programs

## Thematic considerations

- ✓ Performance & measurement
- ✓ Life Cycle Assessment
  - Whole Building
  - Materials
- ✓ Life Cycle Cost Analysis
- ✓ Environmental Product Declarations
- ✓ Health Product Declarations
- ✓ Local Materials
- ✓ Innovation
- ✓ Flexibility



# How Green Building Certification Systems Work



# Green Building Certification Programs

## Green Building Systems

- ✓ Categories of building impacts
  - Environmental
  - Human health & wellness
  - Social
- ✓ Documentation, worksheet, and/or score
- ✓ Pass/fail certification, or different levels/ratings







Location &  
Transportation



Sustainable  
Sites



Water Efficiency



Energy &  
Atmosphere



Materials &  
Resources



Indoor Env'tl.  
Quality





# LEED v4 TECHNICAL IMPROVEMENTS: ENERGY & ATMOSPHERE

## Prerequisites

- ✓ Fundamental Commissioning and Verification
- ✓ Minimum Energy Performance
- ✓ Building-Level Energy Metering
- ✓ Fundamental Refrigerant Management

## Optional Credits

- ✓ Enhanced Commissioning
- ✓ Optimize Energy Performance
- ✓ Advanced Energy Metering
- ✓ Demand Response
- ✓ Renewable Energy Production
- ✓ Enhanced Refrigerant Management
- ✓ Green Power and Carbon Offsets





# Green Building Certification Programs

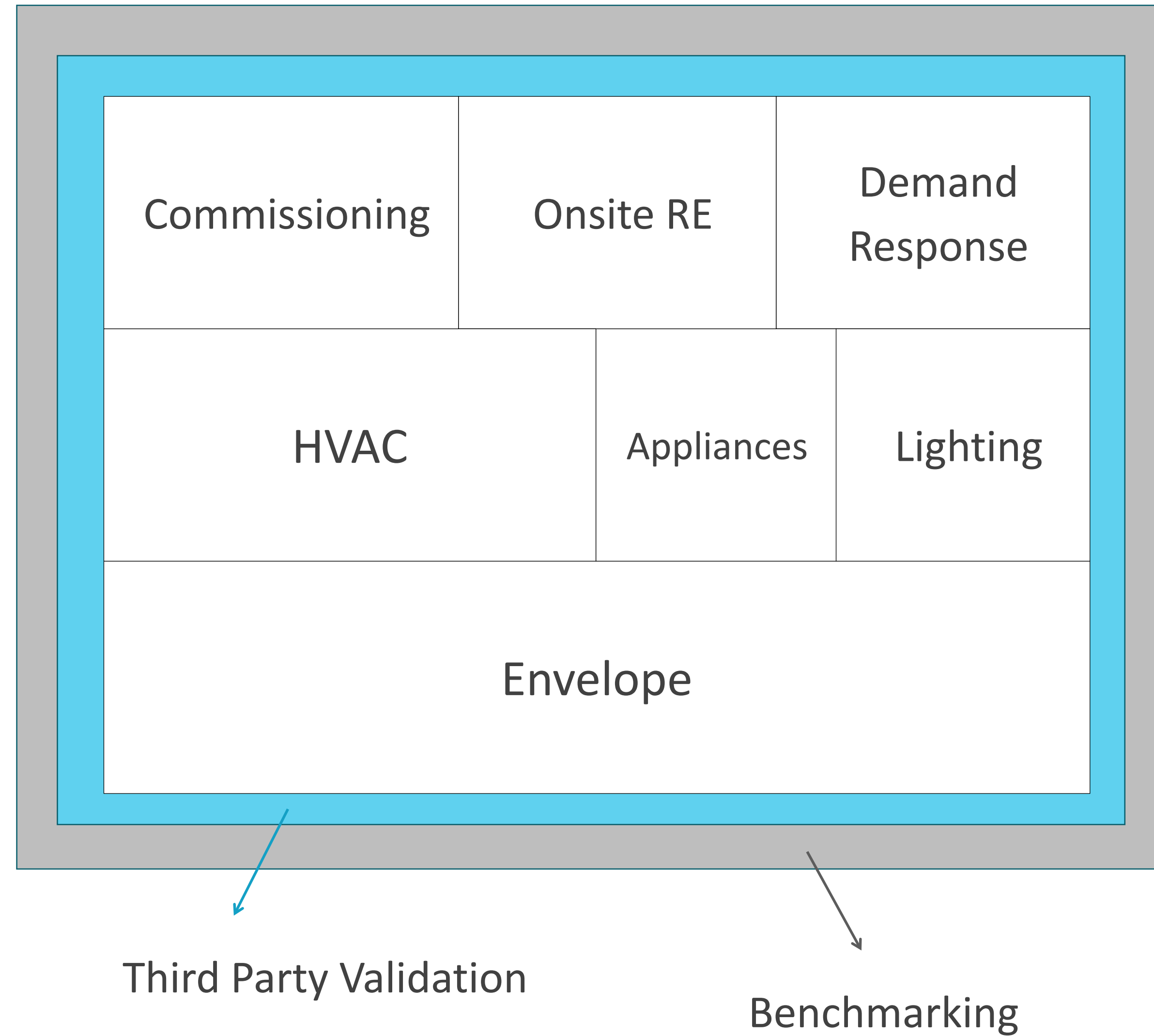
Certification models promote accountability and provide assurance

- ✓ Documentation
- ✓ Operating data
- ✓ Third party review





# Green Building Certification Programs

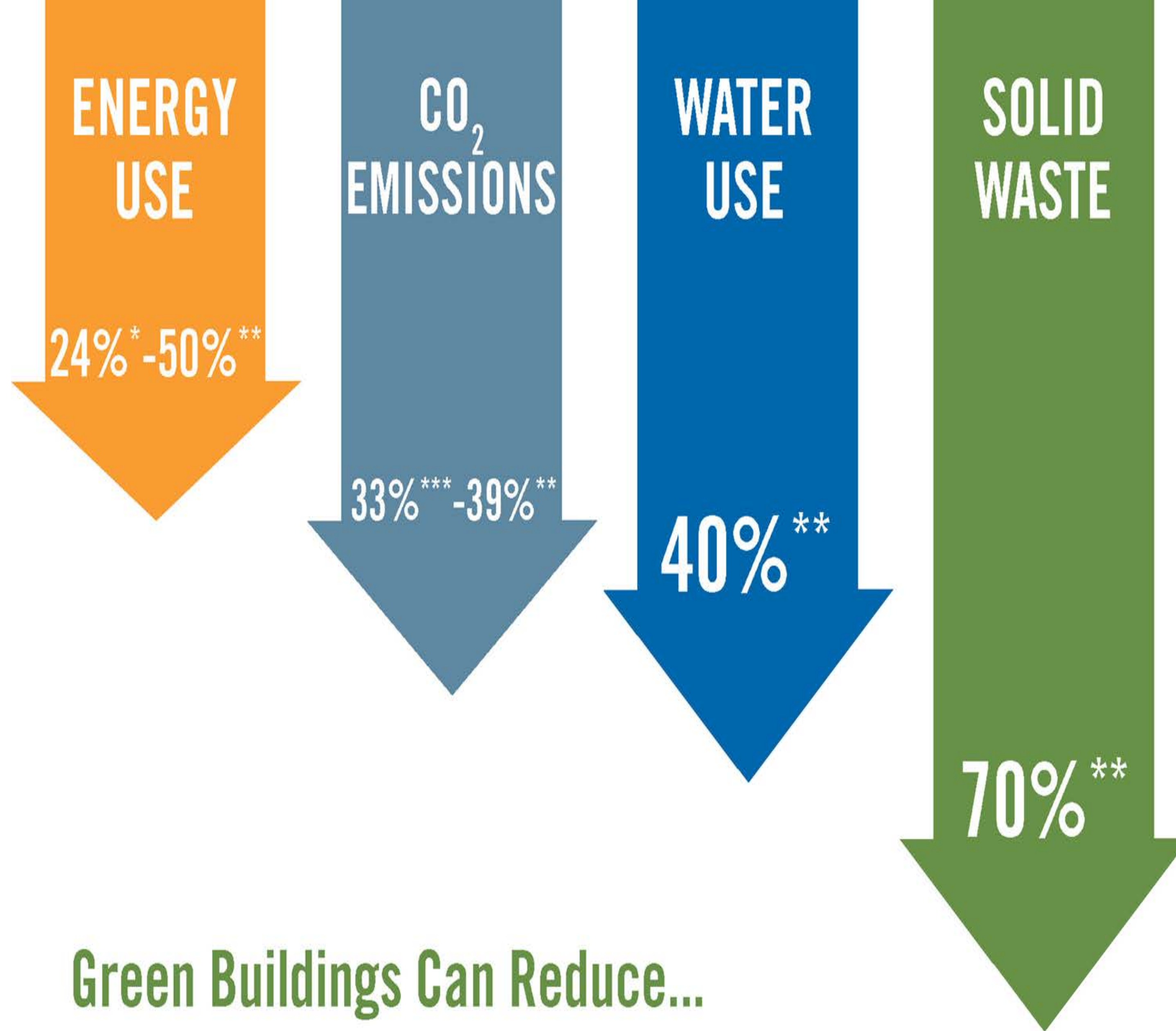




# Benefits for Cities







## Green Buildings Can Reduce...

\* Turner, C. & Frankel, M. (2008). Energy performance of LEED for New Construction buildings: Final report.

\*\* Kats, G. (2003). The Costs and Financial Benefits of Green Building: A Report to California's Sustainable Building Task Force.

\*\*\* GSA Public Buildings Service (2008). Assessing green building performance: A post occupancy evaluation of 12 GSA buildings.



# Green Building Certification Programs

## Potential benefits to cities

- ✓ Assurance from third party certification
- ✓ Value creation
- ✓ New market development
- ✓ Cost savings across society
- ✓ Potential health and productivity gains
- ✓ Supports skills development in building workforce
- ✓ Competitive distinction





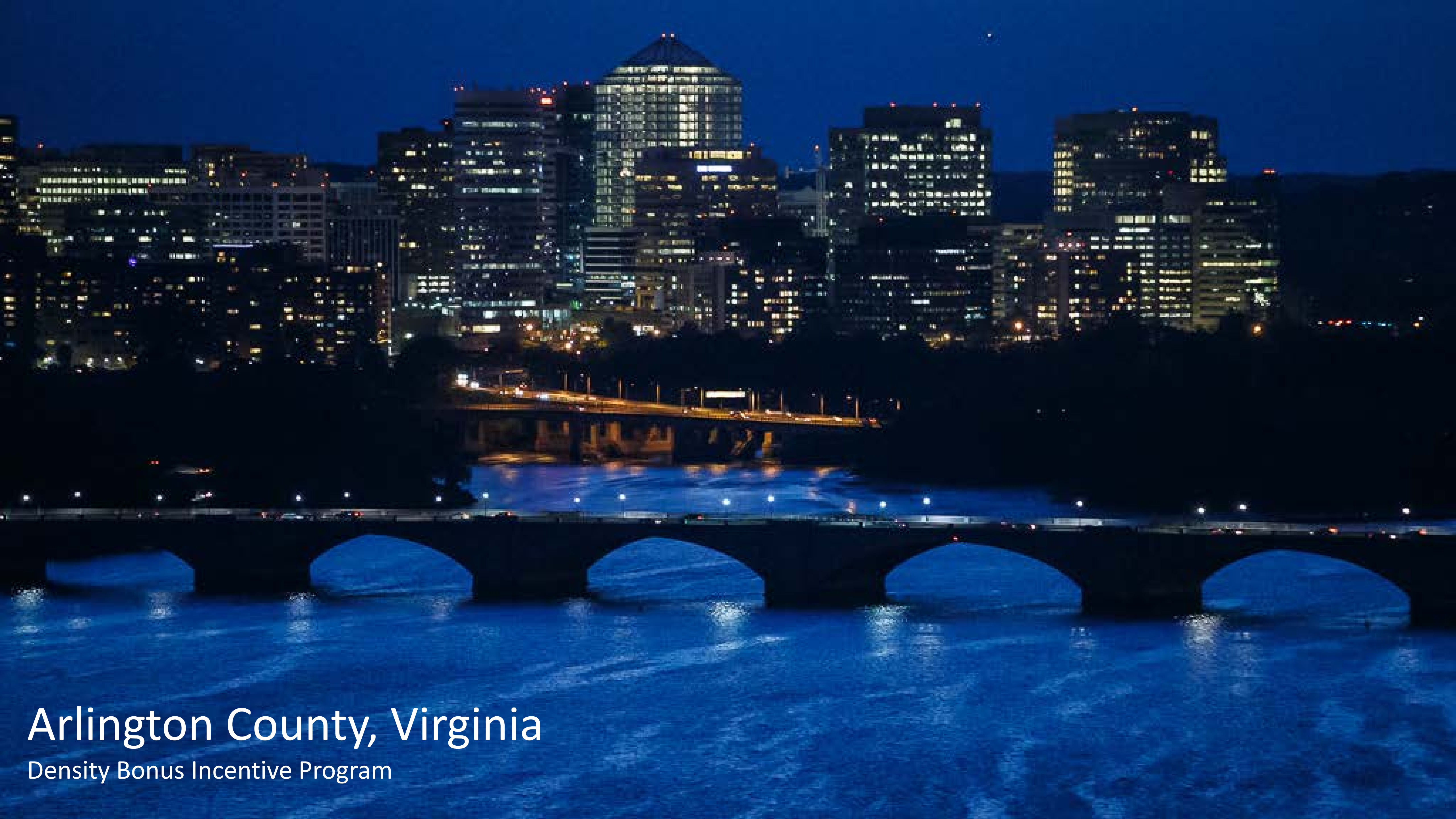


# City of Los Angeles, California

Leadership by Example Policy







# Arlington County, Virginia

Density Bonus Incentive Program



“If your actions inspire others to  
dream more, learn more, do more  
and become more, you are a  
leader.”

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John Quincy Adams  
1767-1848







# Thank You

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