



# PUBLIC PRIVATE PARTNERSHIPS

## Achieving High Performance Buildings

Ash Awad | McKinstry | October 2007

ENERGY + INNOVATION  
FOR THE LIFE OF YOUR BUILDING





**A ROOM FULL OF**

**» Believers**

**» Leaders &**

**» Doers!**



## Three Topics to Cover

- » The significant impact of High Performance Buildings
- » What private firms can do for you
- » A few examples of public-private partnerships



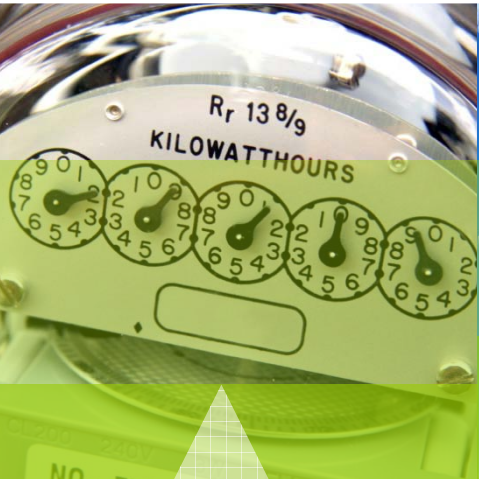
# High Performance Buildings – Most Visible Icon

- » Can be new or old buildings
- » Use energy efficient systems
- » Provide superior physical learning, working, healing, and living environments
- » Use recycled and sustainable materials
- » Buy green power or create renewable energy onsite
- » Operate sustainably & optimally

**MUST have a Total Cost  
of Ownership return to  
the tax-payer!**



# Average Savings of High Performance Buildings



**Energy Savings**  
**30%**

**Carbon Savings**  
**35%**

**Water Use Savings**  
**30-50%**

**Waste Cost Savings**  
**50-90%**

# Energy Efficiency Impact on Carbon Footprint

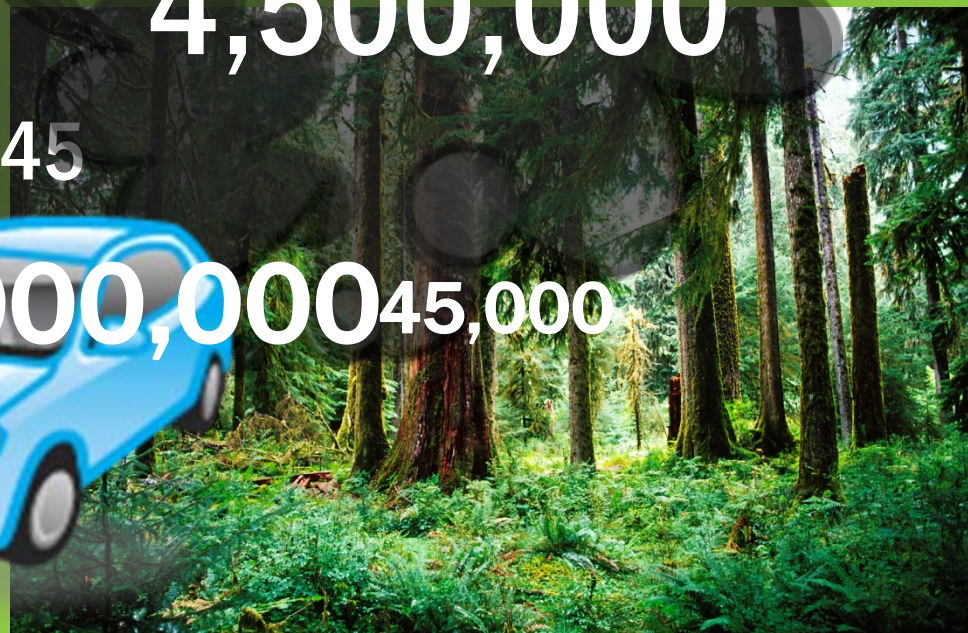
**10 BILLION SQ FT**

10 Billion Sq Ft Muni-Building


- » 20% Energy Savings
- » 5 to 12 year payback



4,500,000  
45  
4,500,000  
45,000

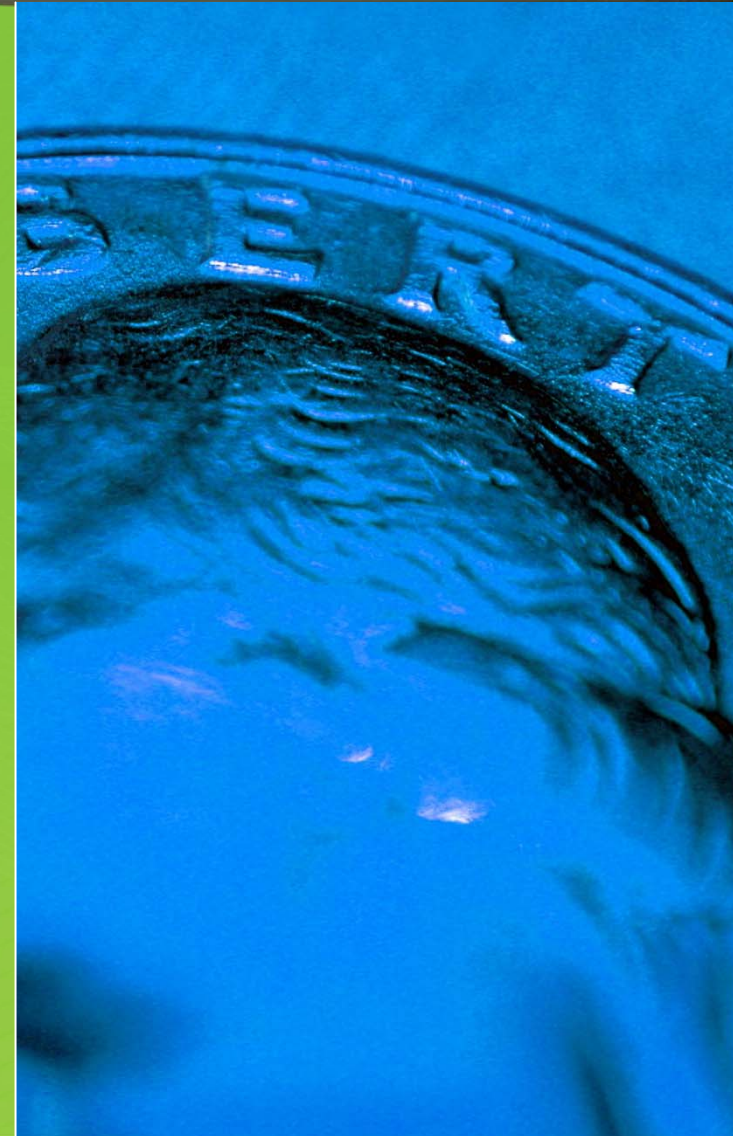


\* Emission Factors and Energy Prices for Leonardo Academy's Cleaner and Greener® Program



# Challenge in Achieving High Performance Buildings

- »Funding! Funding! Funding!
- »Risk Mitigation
- »Focus



# Minimizing Risk & Leveraging Funds

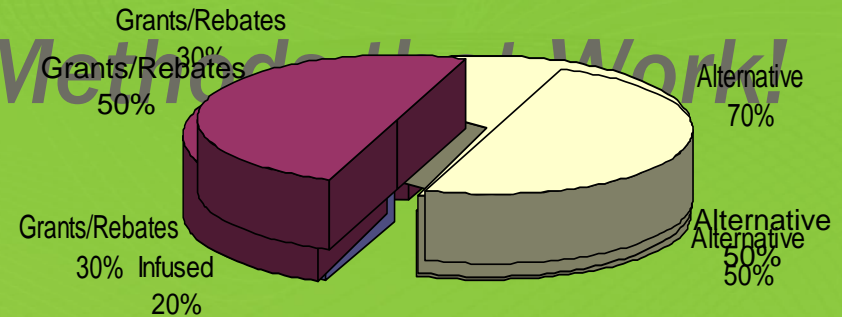
## » Funding

- » Navigate alternative, creative, best funding
- » Optimize & secure all grant funds

## » RISK

- » Develop, budget neutral, high performance projects
- » Guarantee loan repayment and performance
- » Own risk
- » Collaborate with your staff

## Typical Leveraged Funding Model

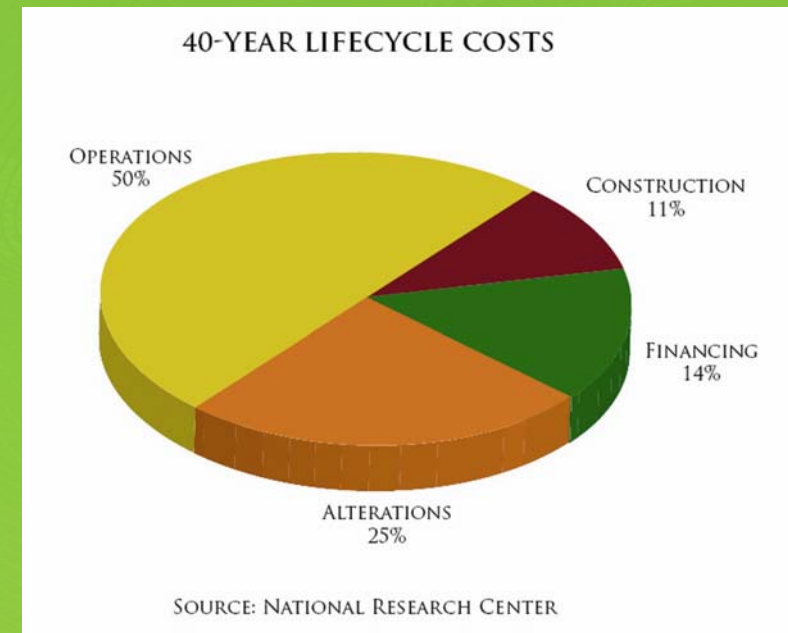


\$0 to \$2 of Capital Infusion yield \$10 of project work



# High Performance Integrated DBOM

- » *“High Cost of Low-Bid”*
  - » Impact on 40 yr operational budget is great
  - » Make decisions using *Total Cost of Ownership*
- » DB teams create true partnerships – most innovative solutions
  - » Private OM is optional in most cases
- » DBOM Lease-to-Own options
  - » i.e. Remove cost of central energy plant
- » Caldwell School District, Idaho
  - » Constructing 2 high performance LEED certified elementary schools





# Guaranteed Loan Re-Payment - ESPC

- » Partner can guarantee the loan repayment
  - » ...takes risk to develop project & secure financing
  - » ...takes risk to guarantee loan re-payment
  - » ...takes risk to guarantee energy savings
  
- » Best Rates for High Performance Buildings
  - » Non-voted debt – Lease or Loan

*“Energy performance/high-performance building projects receive the benefit of lower interest rates and fewer covenants than standard design-bid-build projects due to excellent return on investment with low risk.” - Karen Keeler, SVP, All American Investment Group, LLC*

# Power Purchasing Agreements

Private Partner Outright Owns the Renewable or Central Energy Plant



*No capital, reduced carbon foot print*



**Design/Build  
Operate/Maintain**



**Financing**




# Public-Public-Private Partnerships

- » Clean Renewable Energy Bonds (CREBs)
  - » Secure, very low interest bonds
- » School District and City Partner (Inter-local)
  - » Could establish separate taxing district
  - » Build a Renewable Energy Plant
- » Private Firm can develop and deliver project
- » Power from renewable energy plant can be used or sold



*Small scale Wind Farms – Popular in Montana*



# Secure All Rebates, Grants, & Credits

- » Utilities offering Billions in rebates & incentives
  - » Conservation is the lowest cost fuel
- » \$10 Billion Energy Efficiency Block Grant for Cities
- » State & Federal Tax Credits
- » State health & safety grants
- » Ask partner to share in the risk of the grant funding!



# State & City Green Funds!

- » City of Seattle
  - » \$5 million pending “Green Building Fund”
  - » Cost effective projects, with savings paying for future projects
- » Washington State Treasurer’s Office (LOCAL)
  - » Low interest bonds
  - » Streamlined process
- » Many states have loan & grant programs
  - » i.e. California Energy Commission
  - » Available to public and private clients

# Public Private Partnerships

- » City of Seattle
  - » University of Washington
  - » Northshore School District
  - » City of Eden Prairie
  - » Washington State University
  - » Salem Keizer School District
  - » City of Vancouver, WA
  - » City of Golden
  - » Hayden School District
  - » King County
- ... and many, many more!



## A Few Examples

### » City of Seattle

- » Variety of energy conservation projects (lights to HVAC)
- » Leveraging department funding with utility rebates
- » Pending Green Building Fund

### » Washington State University

- » ~\$30 Million in energy conservation projects
- » Over 60% in alternative financing & utility rebates

### » St. Anthony-New Brighton Schools

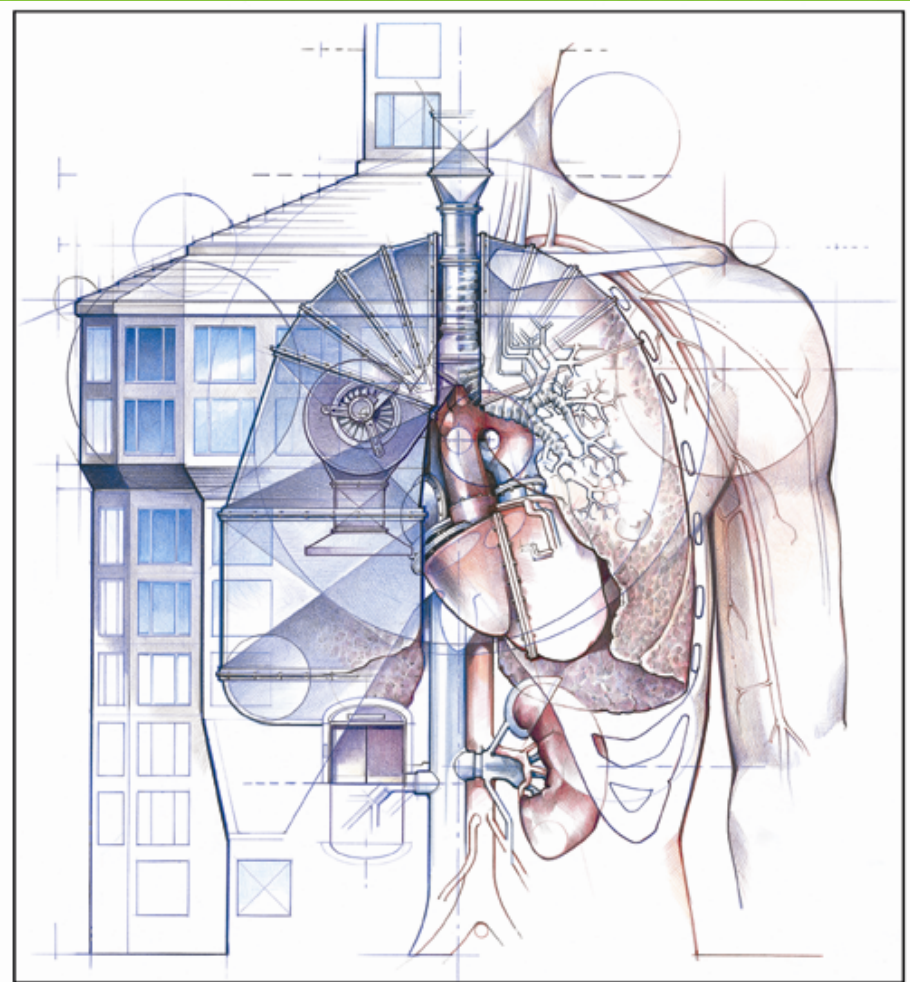
- » 100% in alternative financing & utility rebates
- » Boiler Plant, Solar Wall System





THANK YOU FOR

- » Believing
- » Leading &
- » Doing!



**FOR THE LIFE OF YOUR BUILDING.**