

Comprehensive Climate Planning November 17, 2011 Julia Parzen, USDN

- ▶ Current Context for Climate Action Planning: All About Benefits
- ▶ Lessons from the Chicago Climate Action Plan (CCAP)



OUR CITY. OUR FUTURE.

Making the Case By the Benefits

**For the
Community**



For the Municipality

A Way to Save the City and Residents Money

F&F Foods produces cough drops, mints and various over the counter vitamins and tablets for the confectionary and pharmaceutical industry. The total footprint of their buildings is 153,444 square feet.

ENERGY COSTS:

\$280,121 per year (including electricity, gas and water)

ACTIVITIES UNDERTAKEN:

- Upgraded to new process technologies
 - Replaced existing boiler
- Installed a new closed loop cooling system with a cooling tower that would reduce plant water consumption by over 11,524,099 gallons/year

COST OF AUDIT AND RETROFIT:

\$785,400

COST SAVINGS:

\$296,500 per year

PAYBACK TIME:

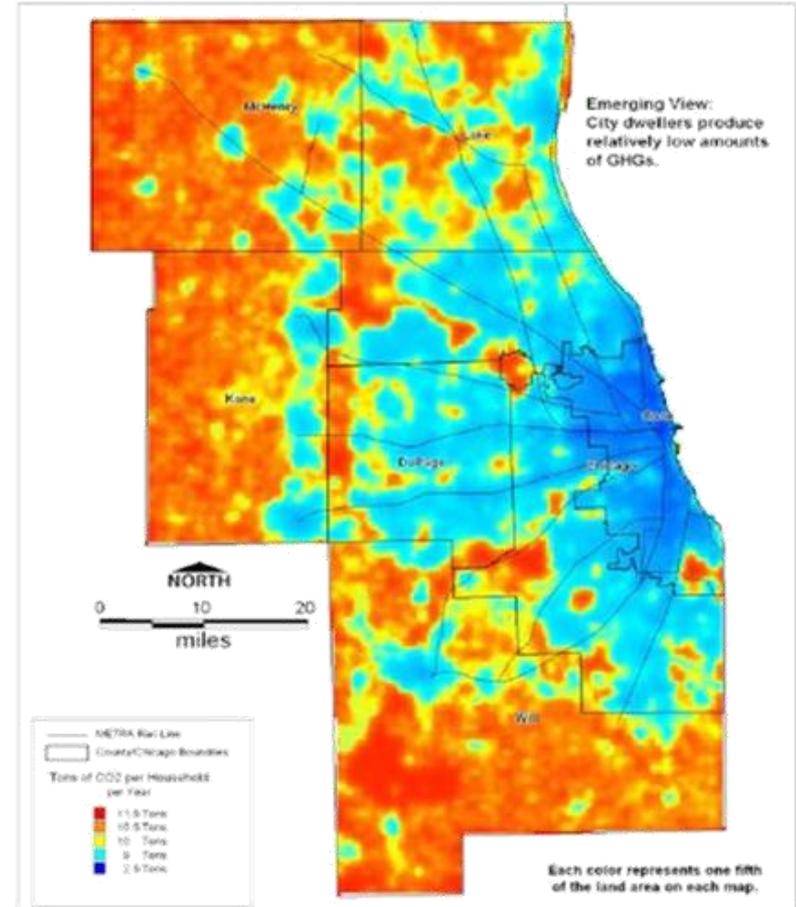
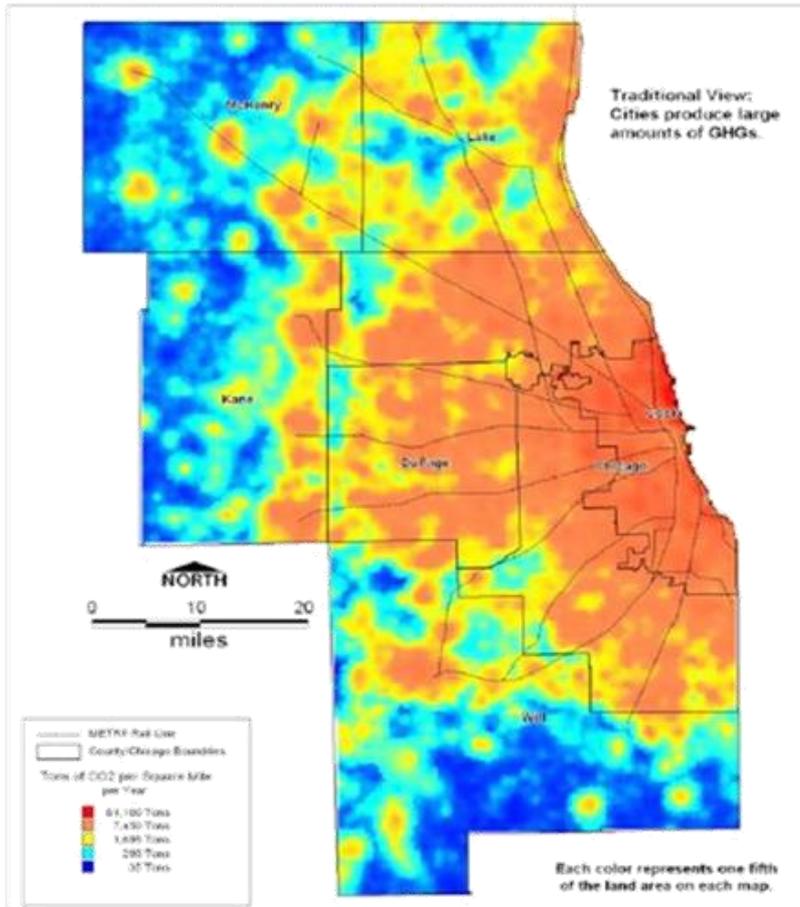
2.65 years

CO₂ REDUCTIONS:

218,841 pounds per year



Two Views of Where GHGs Produced



Ex. Transit Oriented Development



- **Transportation # 2 Household Cost**
- **When workers buy homes far from work, they often end up paying more than $\frac{1}{2}$ their income for H + T**
- **Building housing close to transit reduces car use, lowers transportation costs, reduces congestion (and reduces greenhouse gas emissions)**
- **By 2030, the # of US HH wanting to live near transit will grow from 6 M to 16 M (U.S. Census) and they can be accommodated**

A Way to Organize To Exploit New Markets and Job Creation



What needs to be done to protect vulnerable citizens from heat-related illnesses?



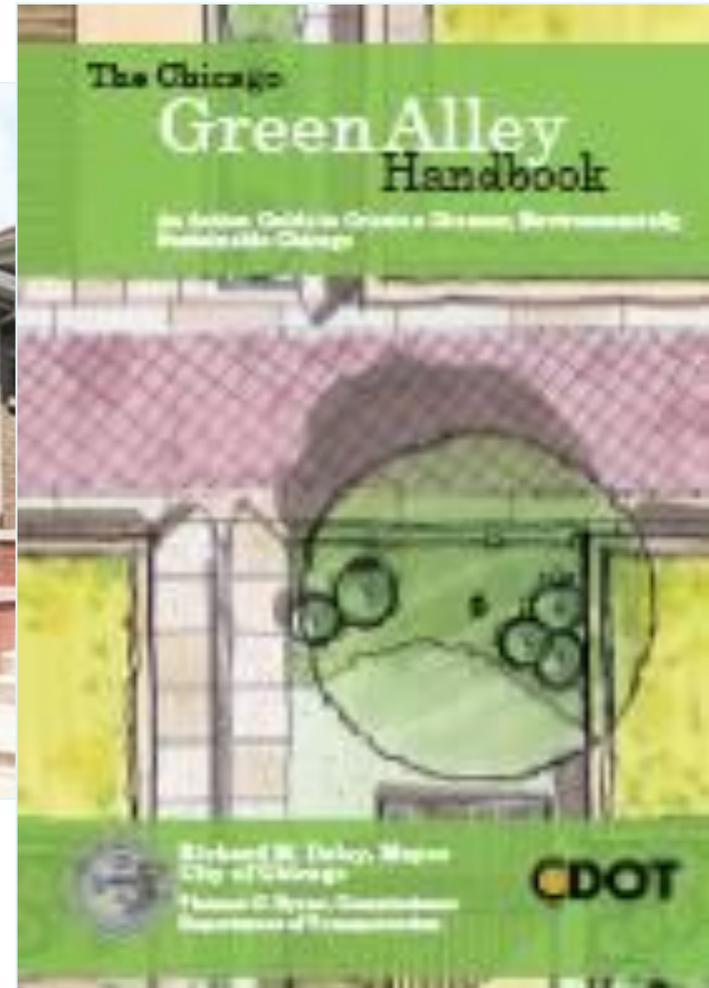
A Way to Preserve Quality of Life

Higher Emissions:
31 days

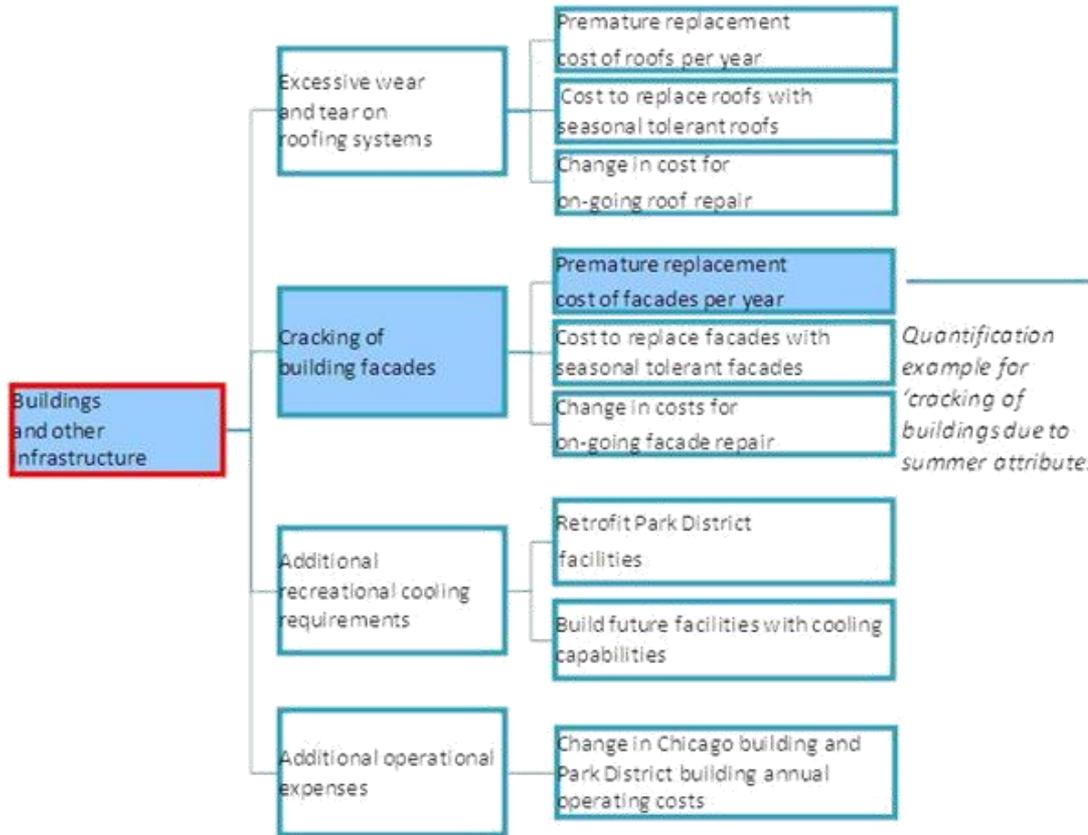
Lower Emissions:
8 days

**U of I Research
Team**

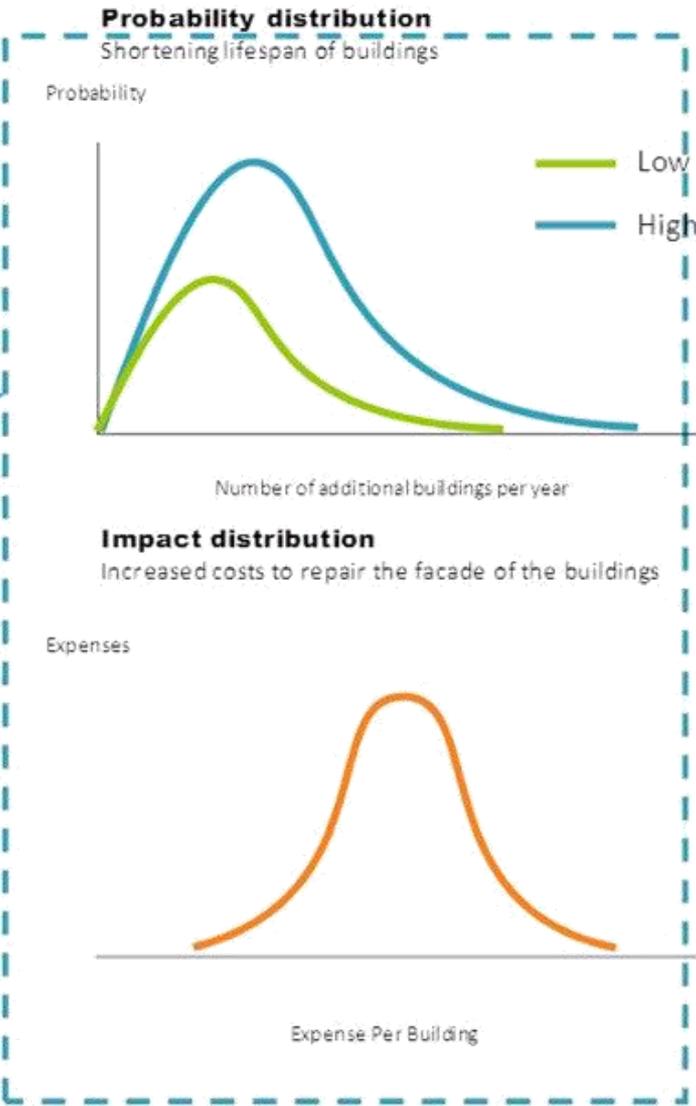
A Way to Organize & Build on Current Initiatives & Leverage Current Resources



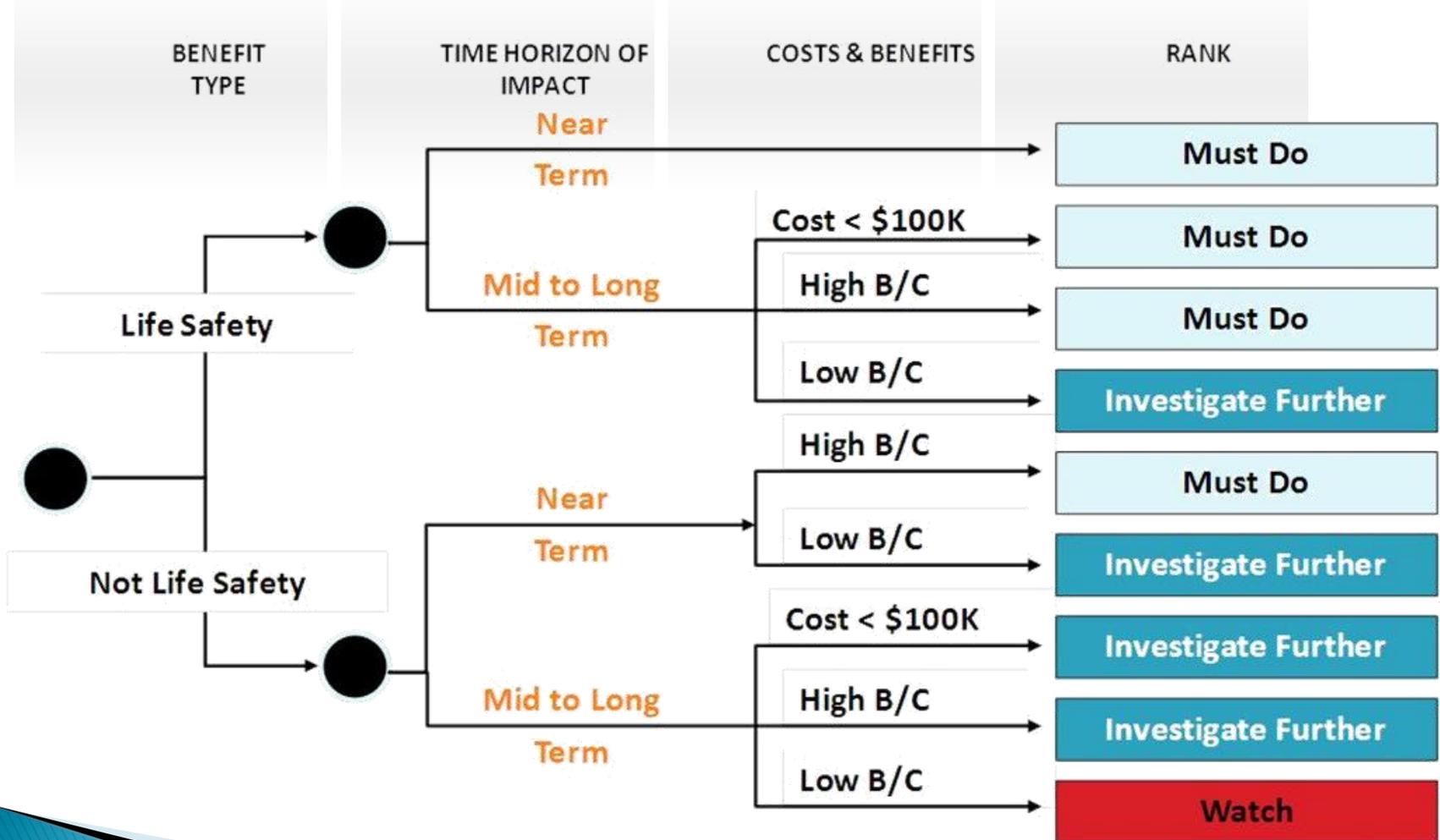
A Way to Improve City Planning



Quantification example for 'cracking of buildings due to summer attributes'



Prioritization Process: Adaptation



A Way to Build Cross-Departmental Learning & Improvement

And Long-Term
Partnerships
and
Collaboration
Structures



A Way to Get Ready for New Federal RFPs



Energy Efficiency and
Conservation Block Grant



Green Jobs Act



Transportation Infrastructure



Green Infrastructure

A Way to Build Philanthropic Partnerships



The **Joyce Foundation**

THE LLOYD A. FRY FOUNDATION



GRAND VICTORIA
FOUNDATION

The Legacy Fund

THE NATHAN
CUMMINGS
FOUNDATION



WILLIAM J. CLINTON FOUNDATION

Lessons From CCAP



OUR CITY. OUR FUTURE.



2020 Goals

ADDRESSING THE CHALLENGE
OF CLIMATE CHANGE

ENERGY EFFICIENT BUILDINGS

8 ACTIONS 4.6 MMTCO₂e

CLEAN & RENEWABLE ENERGY SOURCES

5 ACTIONS 5.33 MMTCO₂e

IMPROVED TRANSPORTATION OPTIONS

10 ACTIONS 3.61 MMTCO₂e

REDUCED WASTE &
INDUSTRIAL POLLUTION

3 ACTIONS 2.03 MMTCO₂e

PREPARATION

9 ACTIONS

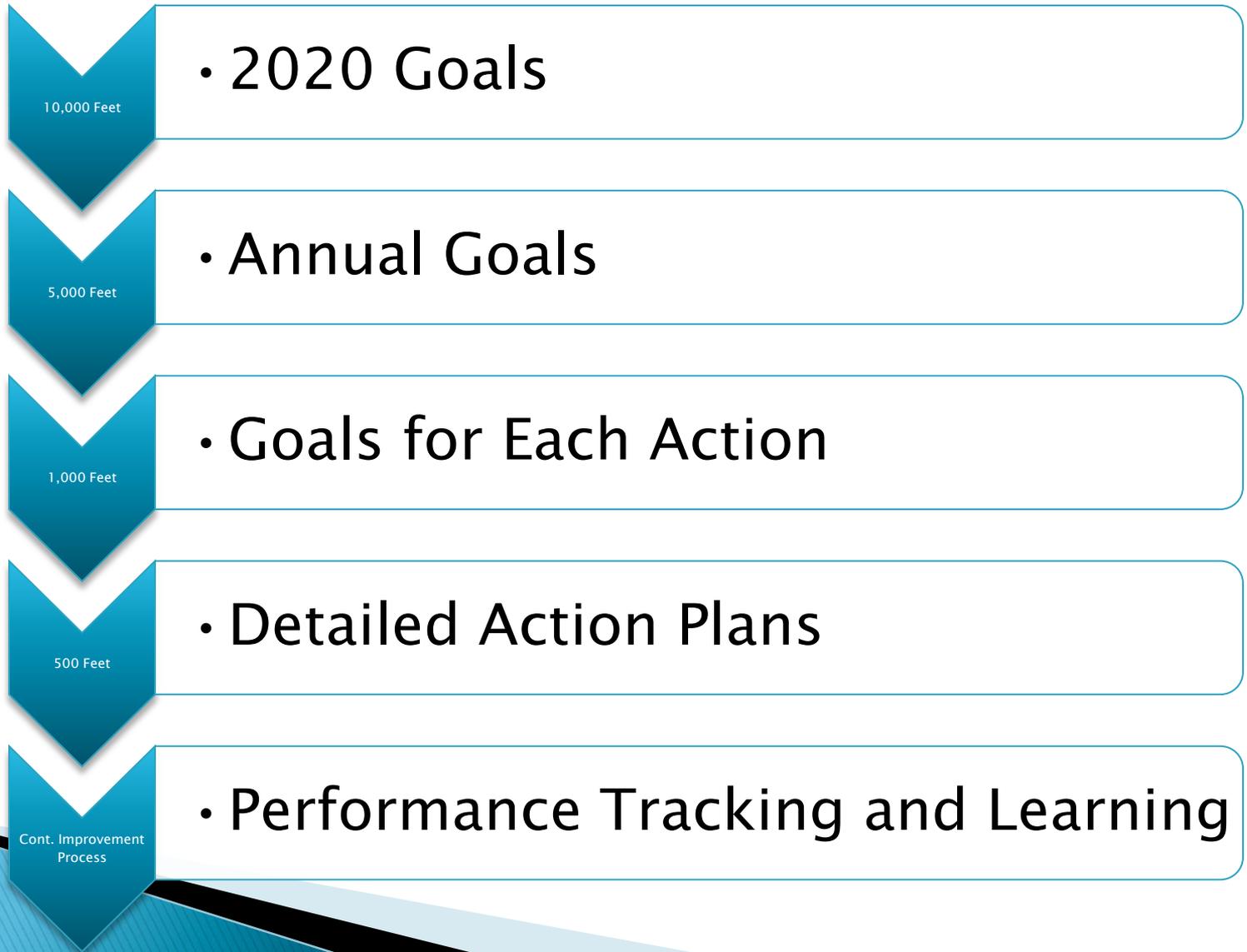
= 15.1 MMTCO₂e

35 WAYS

TO ENSURE A RESILIENT CITY

FIVE
STRATEGIES

Summary: 5 Layers of the Plan



Deep Assessment

Helped Chicago to:

- ▶ Understand Impacts Of Action & Inaction
- ▶ Choose Ambitious, But Doable Goals
- ▶ Prioritize Actions
- ▶ Demonstrate Credibility Of Decisions
- ▶ Engage The Public
- ▶ Track Performance

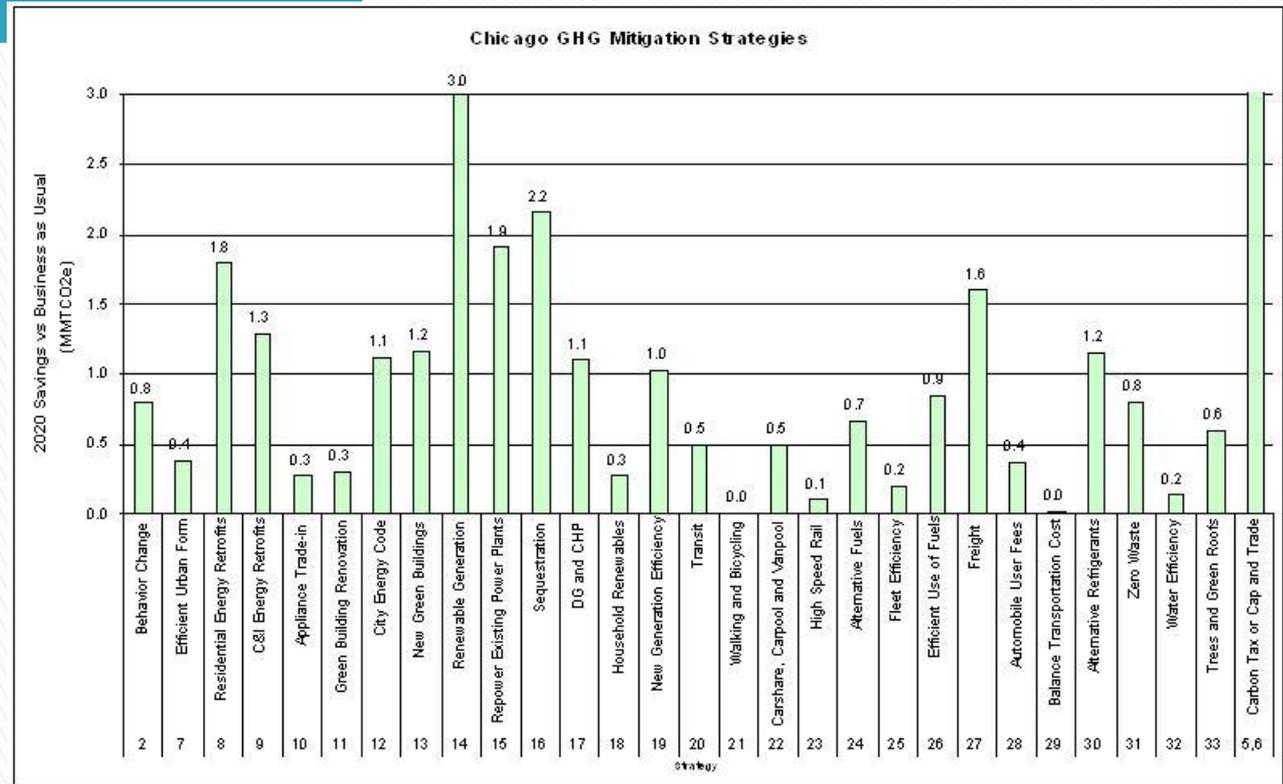


Illustration: Power of Assessment

Strategy Summary	Rating	Value
CO2e Savings Against BAU	+	0.10-0.17 MMT CO2e
Scale of deployment	+++	Plant one million new trees by 2020 and add 500 green roofs per year
Timing	+++	Start in 2008
Regional Impact	+	Full data unavailable
Financial Savings in relation to Cost	+++	Low costs, energy savings
Additional Benefits in relation to Burdens	+++	Many documented environmental and social benefits to greening
Feasibility assessment	++	Large in scale, but politically and culturally popular

Figure 1 Benefits of Trees

Leaves, Branches: Absorb Sound, Block Rainfall

Leaves: Cool the Air through Evapotranspiration

Leaves: Filter Pollutants from the Air

Leaves: Provide Shade, Reduce Wind Speed

Roots: Stabilize Soil, Prevent Erosion

Roots, Leaves, Trunk: Provide Habitat for Birds, Mammals, and Insects

Source: U.S. EPA, <http://www.epa.gov/heatisland/strategies/vegetation.html>

Trees Have Low CO2e savings, High Cooling & Other Benefits

12 Page Overviews for Each Action:

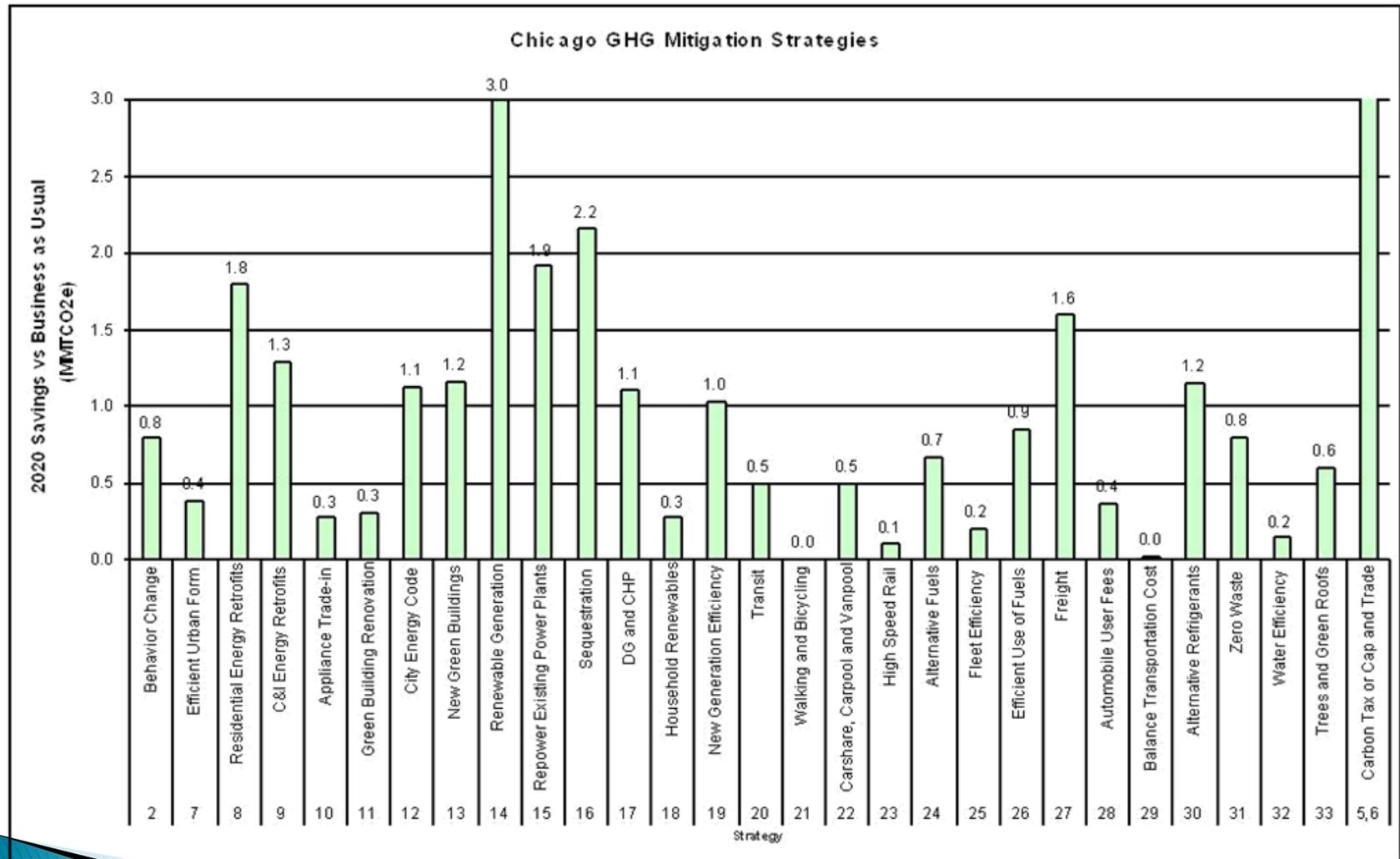
Including
Recommendations
for Potential to:

- Scale up Current Programs
- Import Programs from Other Cities
- Achieve Other Benefits (Jobs, Cost Savings, Etc.)

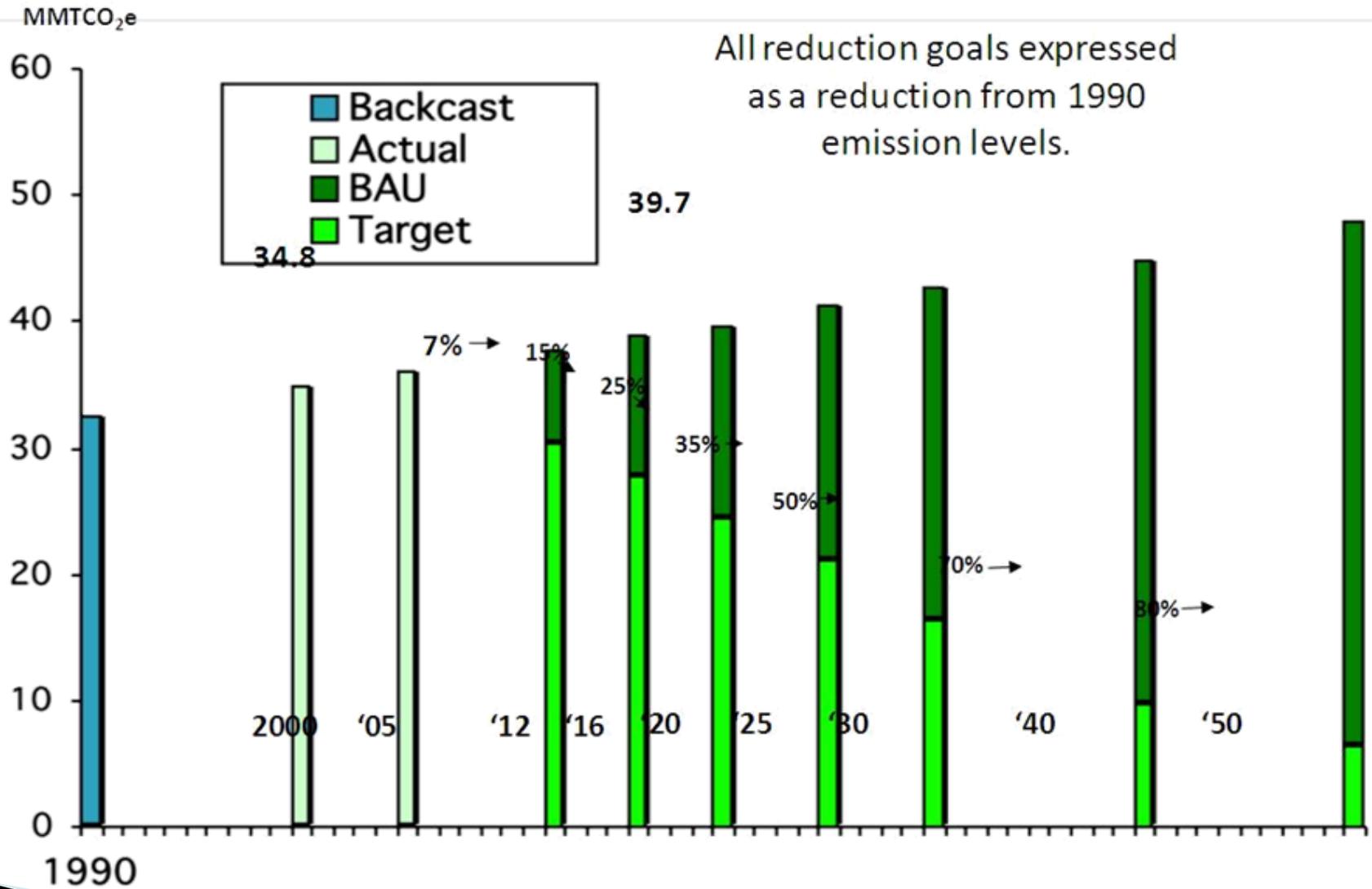
Ex.
**Residential
Building
Retrofits**

Strategy Summary	Scale	Value
CO2e Savings Against BAU	+++	1.3 MMTCO2e
Scale of deployment	+++	400,000 homes
Timing	+++	beginning with 6,000 homes in 2008
Regional Impact	+++	2.5 MMTCO2e
Financial Savings in relation to Cost	+++	12.5 – 30% ROI
Additional Benefits in relation to Burdens	+++	affordable housing
Feasibility assessment	+++	proven models

Goals for Each Action



Annual Reduction Goals



How Chicago Did It: Deep Assessment

- ▶ Research Advisory Committee, Expert Consultants
 - ▶ Research on likely priority climate change impacts
 - ▶ Emissions baseline & projections
 - ▶ Scan of current city initiatives, resources and capabilities
 - ▶ Scan of funding & other opportunities
 - ▶ Benchmarking against best practices from other cities
 - ▶ Prioritization process for mitigation & adaptation options
- 

Broad Engagement

Helped Chicago with:

- Expert advice
- Offers of resources and partnerships
- Increased cross-departmental collaboration
- Buy-in



Multi-Stakeholder Task Force



Recommend to the Mayor:

- Goals for GHG emissions reductions and preparation for climate change
- Actions to achieve the goals
- Strategy to engage all of Chicago

Departmental Engagement



<p>Multi-Stakeholder Task Force and Working Groups</p>	
<p>Green Steering Committee</p>	<ul style="list-style-type: none"> • Departments and Sister Agencies • Monthly Meetings
<p>Multi-departmental working groups</p>	<ul style="list-style-type: none"> • Developed Plans • Periodically Will Update
<p>Sign Off By Every Department on Plan</p>	

Public Outreach



How Chicago Did It: Productive Planning and Engagement

- ▶ Hire expert facilitation
 - ▶ Involve researchers in the process
 - ▶ Develop Engagement Plan
 - Task Force
 - Departmental Steering Committee & Work Groups
 - Other Committees/Sector Groups
 - Summits (Business, Community, Labor)
 - ▶ Plan for at least 3 meetings
 - Introductory Briefing
 - Brainstorming
 - Prioritization
 - ▶ Develop communications function and plan
- 

Early Start on Implementation

Helped Chicago to:

- ▶ Identify barriers before go public
- ▶ Show early progress, which built support and countered skepticism
- ▶ Have time to learn and manage expectations
- ▶ Be ready for new federal resources for climate mitigation and energy



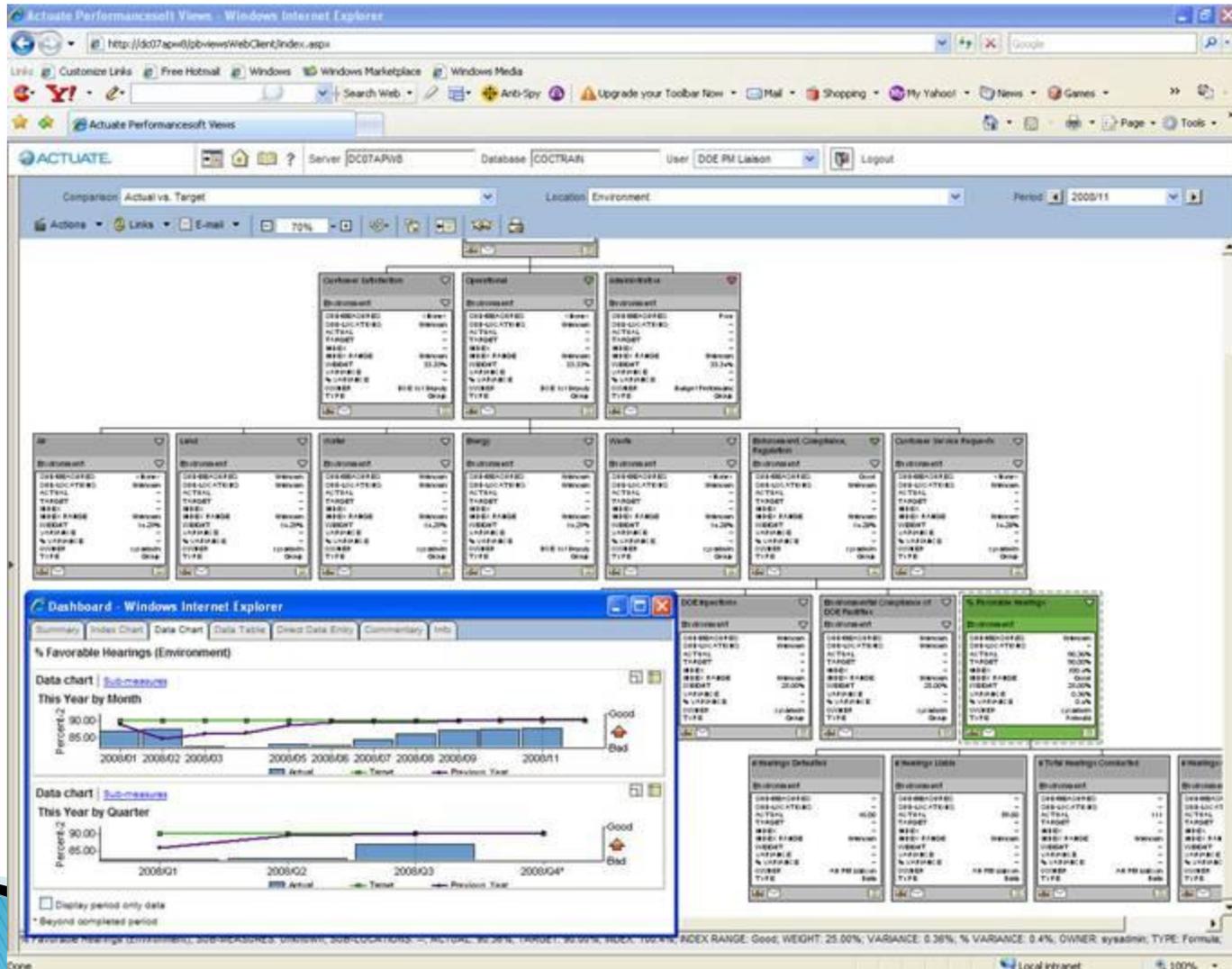
Detailed Implementation Plans: Retrofit Example



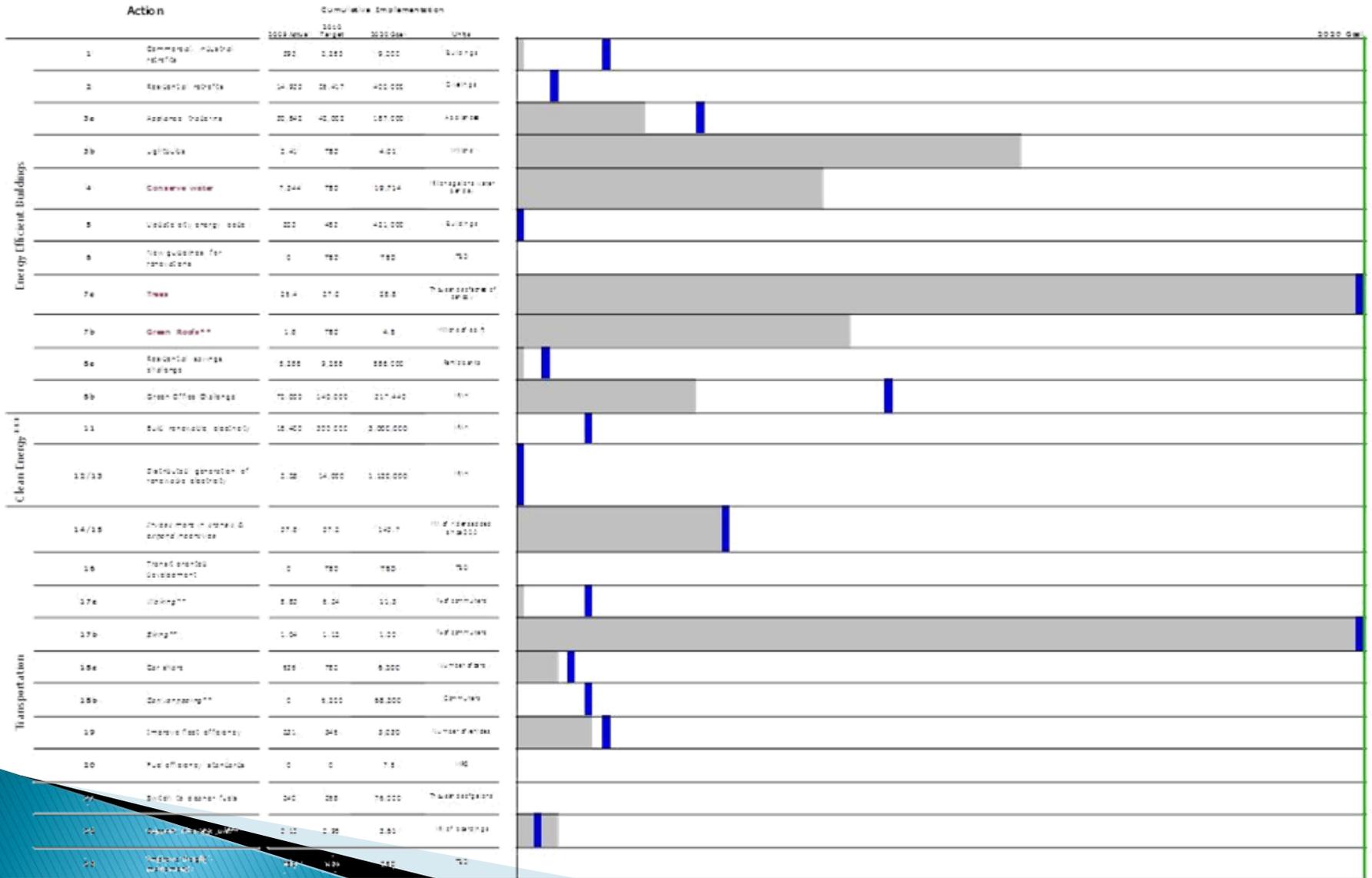
How Chicago Did It: Rapid Shift to Implementation

- ▶ Develop and staff Working Groups
- ▶ Develop assessment plans, budget and funding
- ▶ Develop and implement performance tracking plan
- ▶ Hire consultants
- ▶ Include in each plan:
 - Benchmarking and Inventory
 - Financing strategy
 - Communications and public engagement plan
 - Performance Tracking Plan
 - Costs and Benefits
 - Jobs and Economic Development Plan

Performance Tracking to Inform Continuous Improvement



Tracking By Action



How Chicago Did It: Managing a Complex Process

- ▶ **Plan for Staffing**
 - Internal Team
 - Nonprofit / External Project Manager and Partner
- ▶ **Secure Support and Liaison from Mayor's Office**
- ▶ **Create a Plan and Time Line (1 Year +)**
 - Assessment
 - Planning and Outreach
 - Implementation
- ▶ **Develop Budget and Funding Partners**
- ▶ **Choose Research Advisory Committee and Consultants**
- ▶ **Choose Task Force and Committee Members**

A Nonprofit Partner

Non-Profit

Partner Roles:

- **Strategy**
- **Project Management**
- **Facilitation**
- **Partnership Building**
- **Fundraising**
- **Grant Management**
- **Contractor Management**



Summary: What Chicago Says About Factors for Success

- ✓ Using Climate Action As A Means to A Common Vision for Prosperity & Resilience
- ✓ Early Support From the Mayor
- ✓ Early Support From Government, Civic, and Business Leaders
- ✓ A Senior Level Champion
- ✓ Dedicated City Staff Time
- ✓ Strategic Non-Profit Partner
- ✓ Solid Analysis
- ✓ Systematically Building on Existing Initiatives
- ✓ Dedicated Analysis and Planning Funds
- ✓ Foundation Partners
- ✓ Task Force of Supportive Local Leaders
- ✓ Process for City Commissioners & Sister Agencies
- ✓ Frequent Public Events and Climate Summits
- ✓ Early Start on Implementation
- ✓ An Aligned Communications Strategy
- ✓ A Mechanism for Tracking Progress

All CCAP Reports Available

http://www.chicagoclimateaction.org/pages/research___reports/8.php

