
Cities for Climate Protection: A Roadmap to Reducing Emissions

Garrett Fitzgerald
Director of Programs
ICLEI - Local Governments for Sustainability

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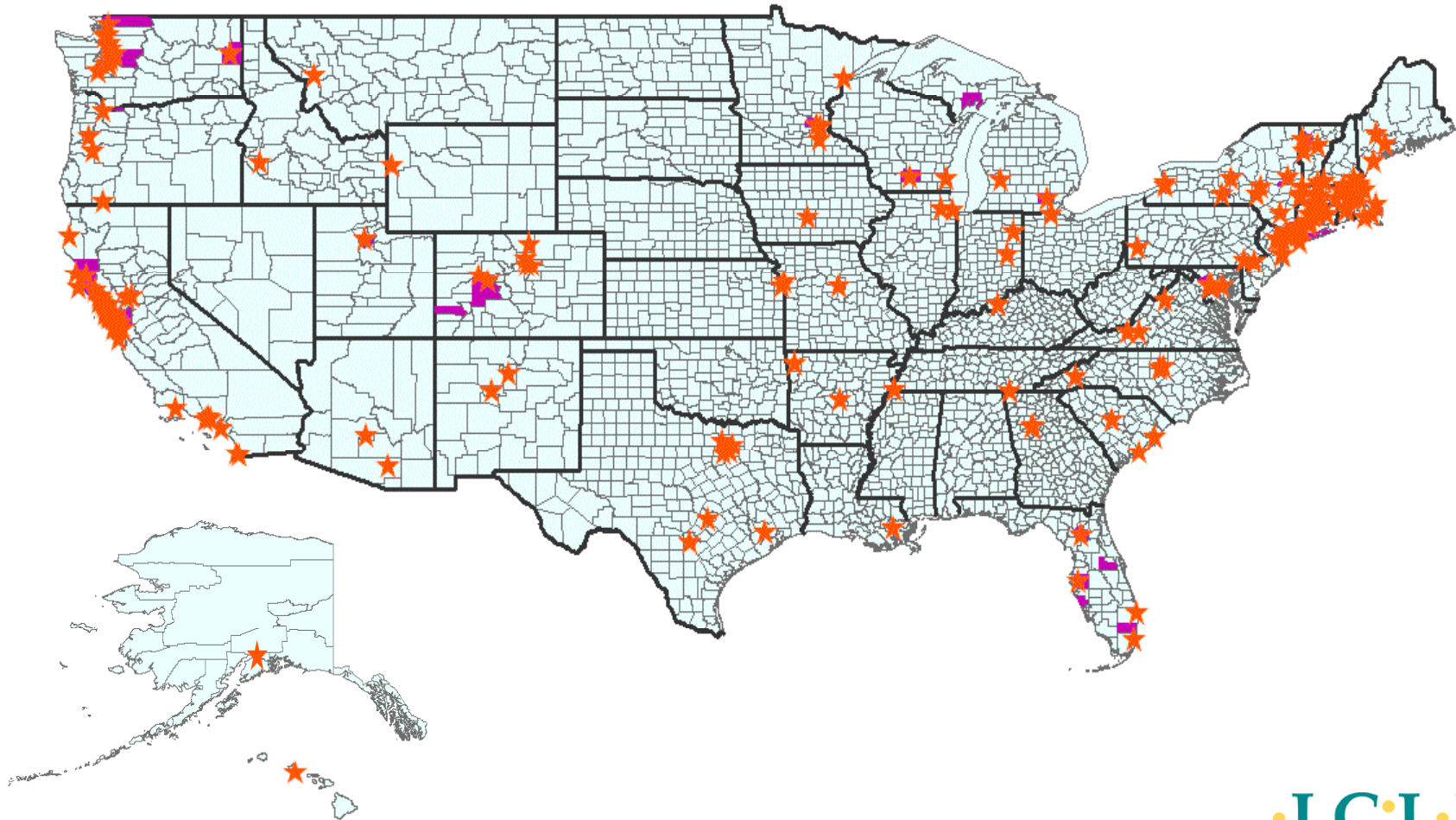
ICLEI – Local Governments for Sustainability



A worldwide movement of local governments dedicated to achieving tangible improvements in global environmental conditions through cumulative local action

- Association of cities, towns, counties in over 50 countries
- Offices in 10 countries

The ICLEI Network



Annual Results from CCP Participants

Cumulative local actions have a positive impact on global climate change.

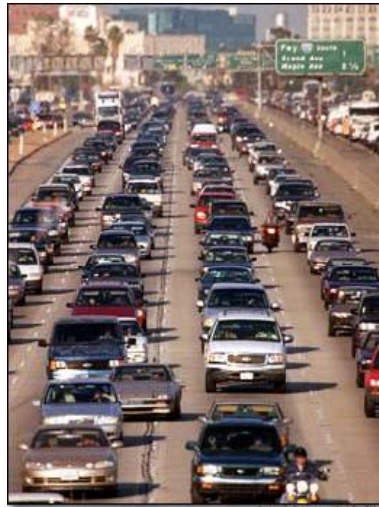
- 23 million tons of CO₂e reduced
- \$535 million saved in fuel costs
- 4 million MWh of electricity savings
- 74 million gallons of gasoline savings

Local Government Opportunities

Local governments influence all major sources of global warming and local air pollution



Energy Use



Transportation and
Land Use

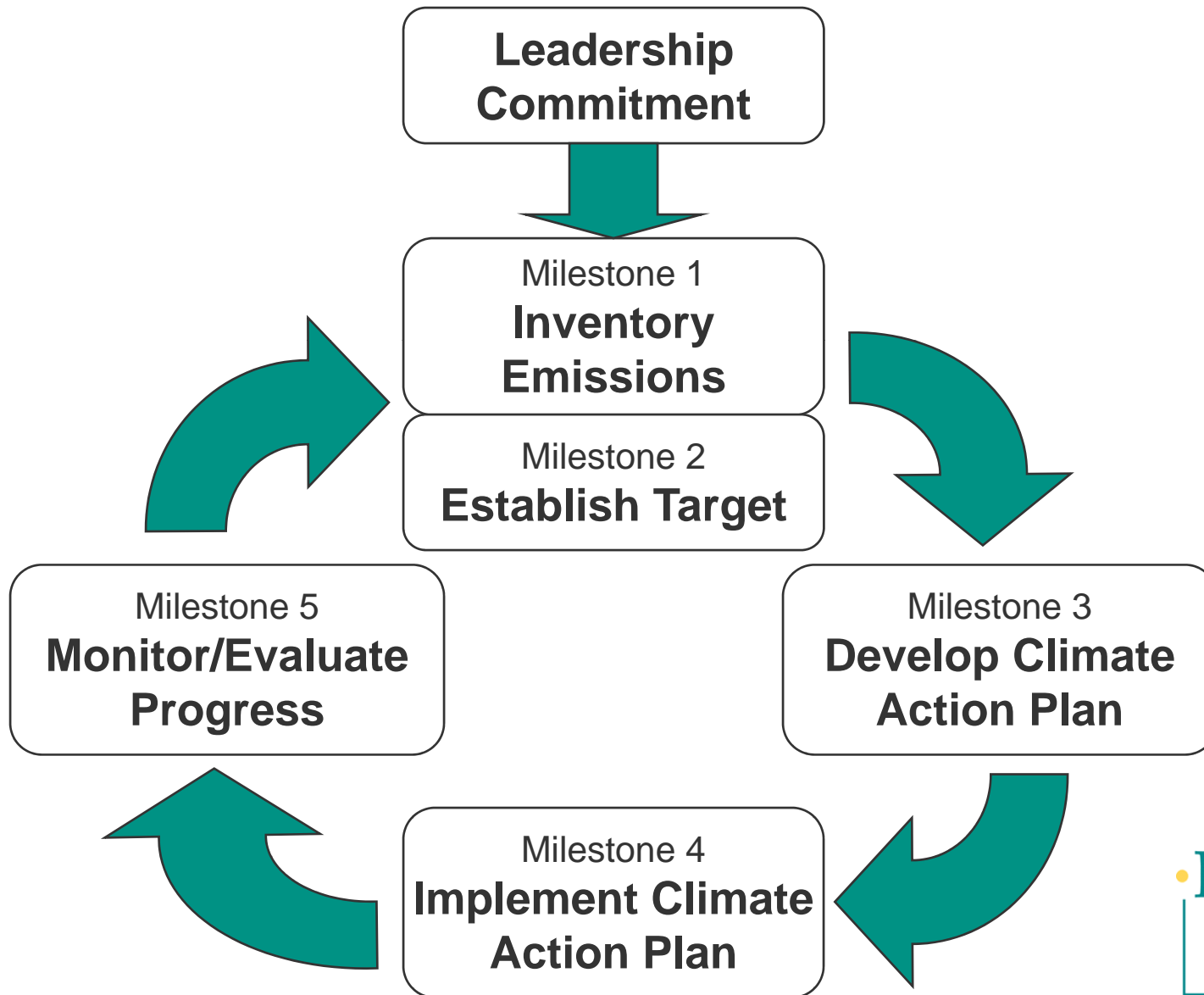


Solid Waste

How do Cities Benefit from Reducing Emissions?

- Reduce municipal operating costs
- Improve air quality
- Protect public health
- Address traffic and other transport woes
- Develop local economy and employment
- Improve sustainability and livability of the community
- Create a legacy of leadership

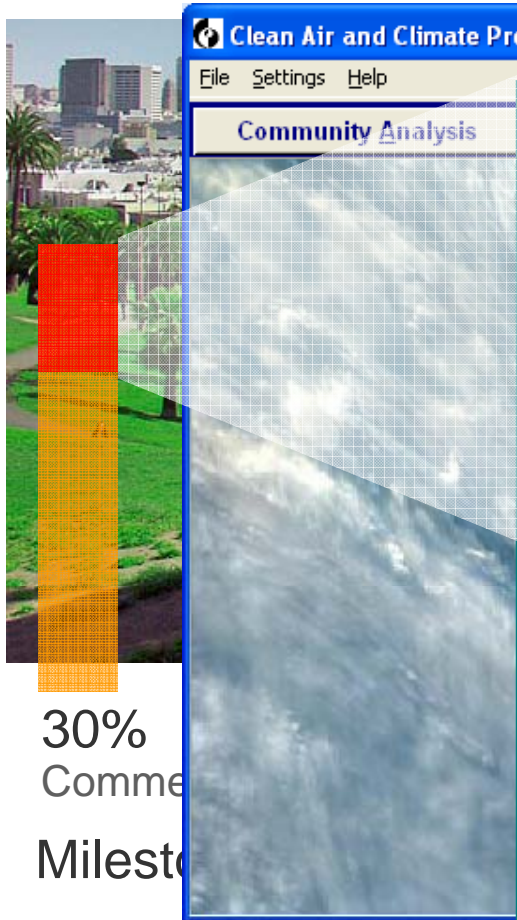
The CCP 5-Milestone Process



What Does ICLEI Provide?

- Standard Methodology
- Technical Assistance
- Emissions Analysis Software
- Tools and Resources
- Training Sessions
- Professional Network
- Competitive Grants
- Media and Recognition

Milestones 1-3: Baseline; Target; Action Plan



30%
Comm

Milestone

Milestone 2: 20% Red

Milestone 3: Develop

Commercial Sector Emissions Reductions

New Construction Energy Codes

- Require higher efficiency HVAC, lighting and window technologies; reduced air infiltration; and appropriate solar orientation
- Implement in 2009
- Anticipated annual savings: 64.5 million kWh
450,000 therms
77,300 tons CO₂e
\$110,404,859

Existing Commercial Facility Retrofits

- Offer free facility energy audits and expert advice, along with financial incentives for HVAC and lighting equipment improvements
- Implement in 2008
- Anticipated annual savings: 80 million kWh
700,000 therms
105,200 tons CO₂e
\$79,407,558

Install Solar Photovoltaic Panels

- Install photovoltaic panels on all municipal facilities where feasible
- Implement in 2007
- Anticipated annual savings: 140,000 kWh
103 tons CO₂e
\$14,000

What Actions are Cities Taking?

- Energy Efficiency (retrofits, ordinances, procurement)
- Renewable Energy (solar, wind, grid purchases)
- Energy Generation (cogeneration, districting)
- Alternative Fuel Vehicles (biodiesel, CNG)
- Transit-Oriented Development (zoning, infill)
- Trip Reduction Programs (carshare, telecommute)
- Waste Reduction (recycling, composting)
- Urban Forestry (planting, management)

Cities in Action:

Energy Efficiency in Oakland



- Energy efficiency projects in the City Administration building save over \$180,000 per year and reduce emissions by nearly 750 tons annually
- Replaced green and red traffic lights with LED lights, saving the city over \$400,000 annually and reducing emissions by 1,700 tons a year
- Energy retrofits at the Oakland Museum save \$160,000 per year and 500 tons of CO₂e per year



1 MW solar installation on the ice rink downtown

Cities in Action:

Ann Arbor LED Street Lighting

- Piloted LED pedestrian street lighting in downtown
- Installing throughout downtown
- Energy use reduced ~ 50%
- Maintenance costs reduced 70-80%
- 250 tons CO₂e saved annually



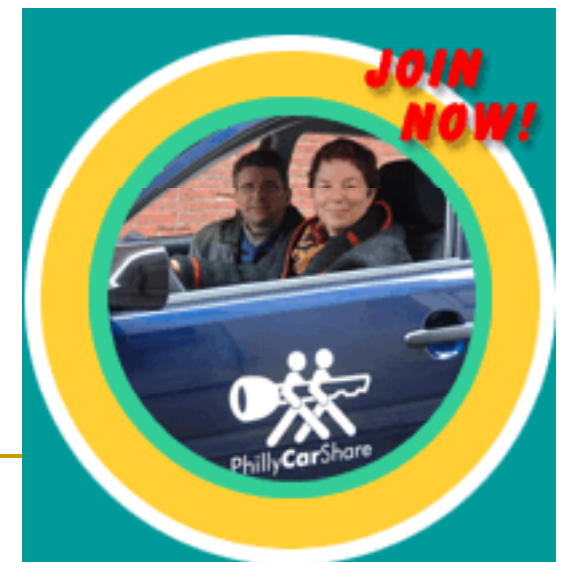
Cities in Action:

Fleet Carsharing in Philadelphia, PA

- Partnership between the City and PhillyCarShare for local residents & government employees
- Replaced 330 municipal vehicles, saving the city \$2 million/year & reducing car use 30%
- Replaced 1,200 citizen vehicles, saving about \$5.5 million and 8.2 million fewer vehicle miles driven



PhillyCarShare
Our wheels. Your freedom.



Cities in Action:

Sacramento's Transit Village Redevelopment

- Mixed use, transit-oriented development in East Sacramento
- Goal to improve pedestrian and bicycle circulation, increase residents' access to light rail system
- Predicted VMT reduction 2,000/year



New Tools & Resources

- www.CoolMayors.org
- Local Climate Action Map
- Emissions Analysis Software
- Climate Action Handbook
- Climate Action Planning Assistant



Climate Action Planning Assistant

Community info

Operations info

Implemented measures

Relative value of
decision criteria

Experiences of
Your Peers

Expert input

Your Local Climate Action Plan!

What's Next?

- Commit to Lead
- Staff that Commitment
- Join ICLEI
- Emissions Inventory
- Examine Progress
- Reduction Target
- Action Plan
- Implementation



Contact Information

Garrett Fitzgerald

Director of Programs

ICLEI - Local Governments for Sustainability

510.844.0699

Garrett.Fitzgerald@iclei.org



Climate Action Planning Assistant

| Assigned Weight | 3 | 5 | 3 | 4 |
|-----------------------------|--------------|------------------|-----------------|----------------|
| | Initial Cost | Financial Return | Level of Effort | Public Support |
| Free CFL Giveaway | 4 | 5 | 4 | 5 |
| Designate Hybrid Parking | 4 | 2 | 3 | 2 |
| Expanding Recycling Program | 3 | 3 | 3 | 5 |

Climate Action Planning Assistant

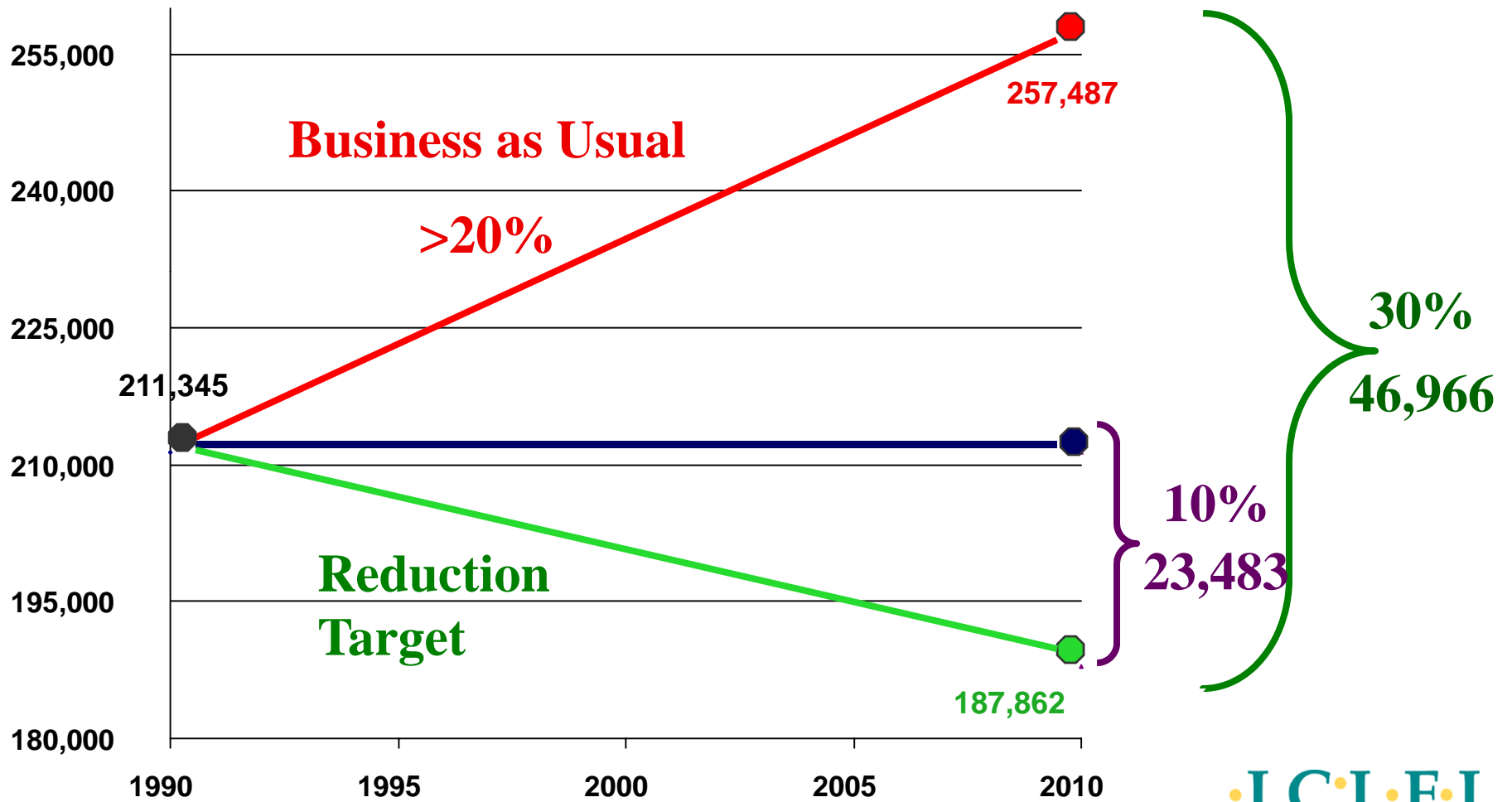
Draft Local Action Plan

Free CFL Giveaway

- Description
- Resource Savings
- Emissions Benefits
- Financial Costs and Savings
- Co-Benefits
- Links to Examples
- Links to Tools & Resources

Expand Recycling Program...

Picking a Target



Be strategic!

Side-by-side measure comparisons allow jurisdictions to assess the relative impact of the actions included in their actions plans

