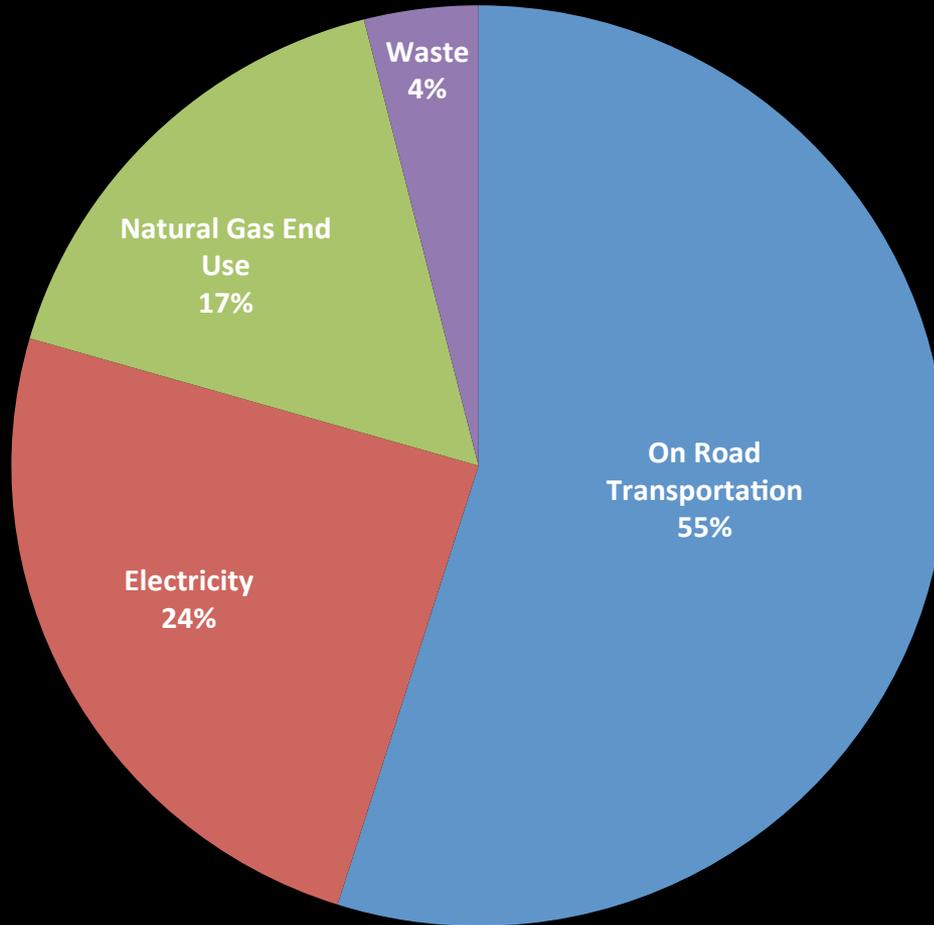


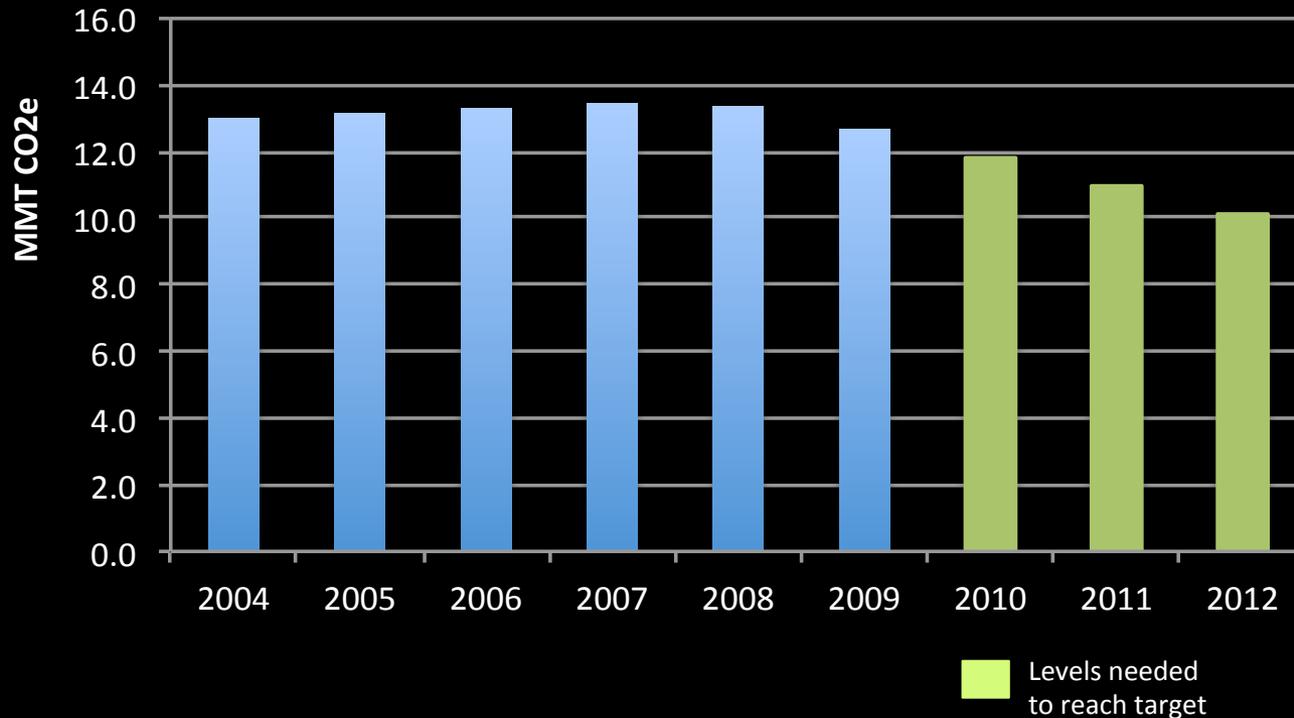
City of San Diego CMAP: Community Mitigation Benchmarking Summary



City of San Diego Communitywide GHG Emissions by Category (2007)



Communitywide GHG Emissions City of San Diego



Source: City of San Diego Inventory

Note: 2005 and 2006 are interpolated values.

Levers of Change in the Community

What does the City control or influence?

Land use and zoning

Building codes

Community centers and libraries

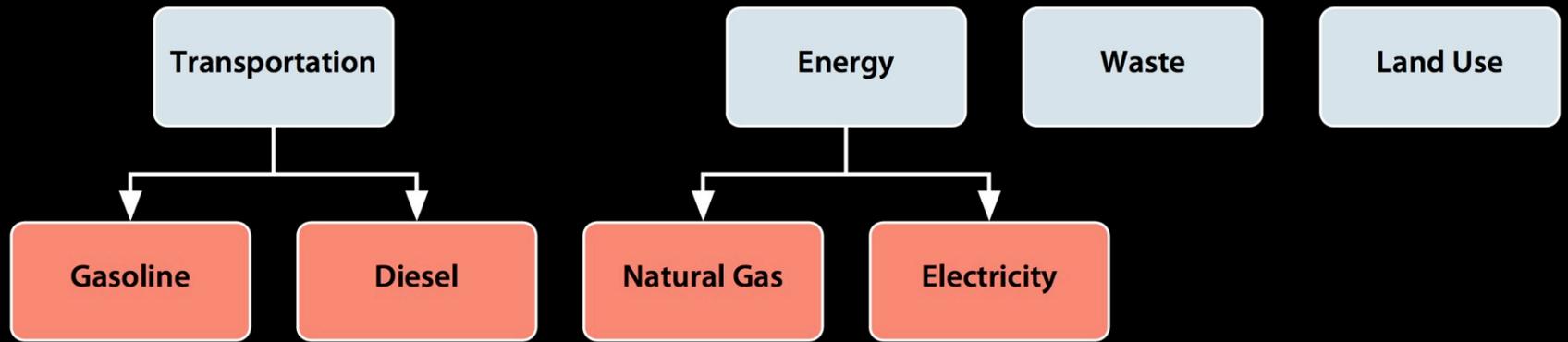
Economic development

Business licenses

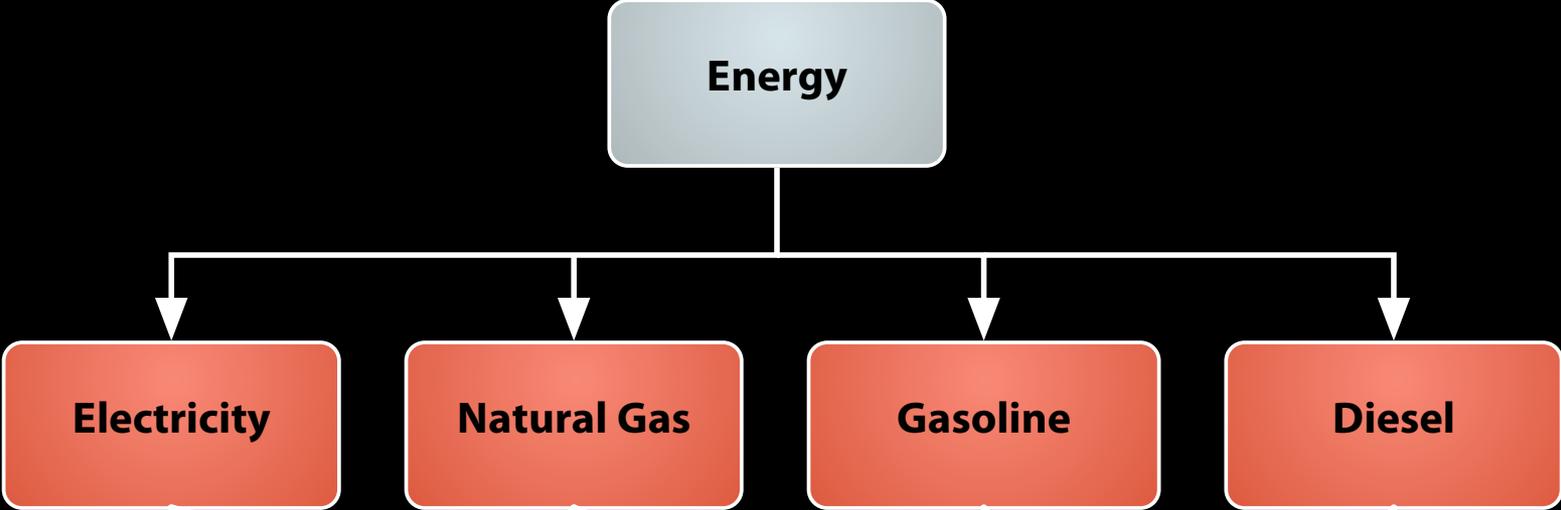
City employees

Redevelopment and housing

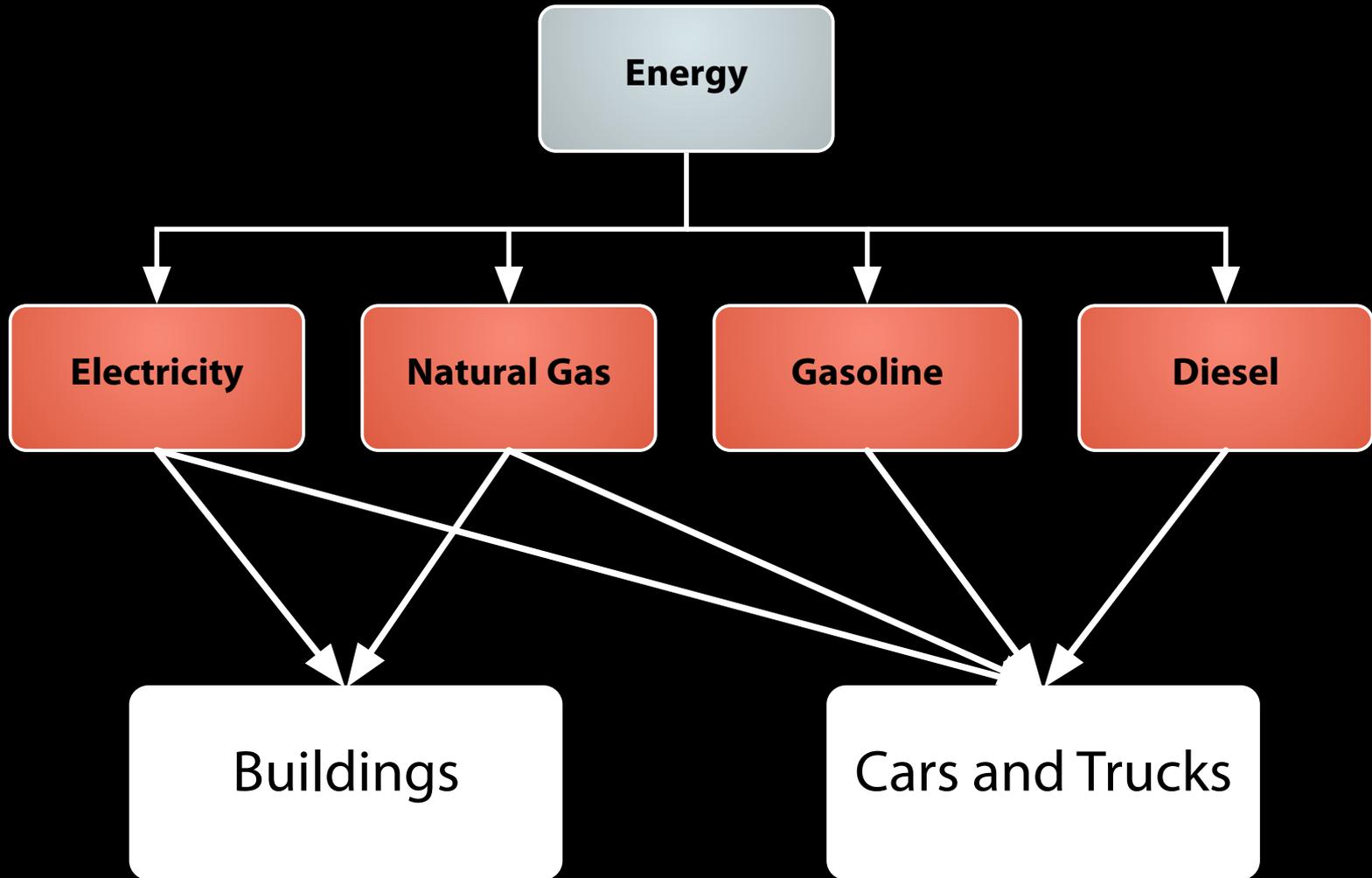
CMAP Categories



CMAP Categories

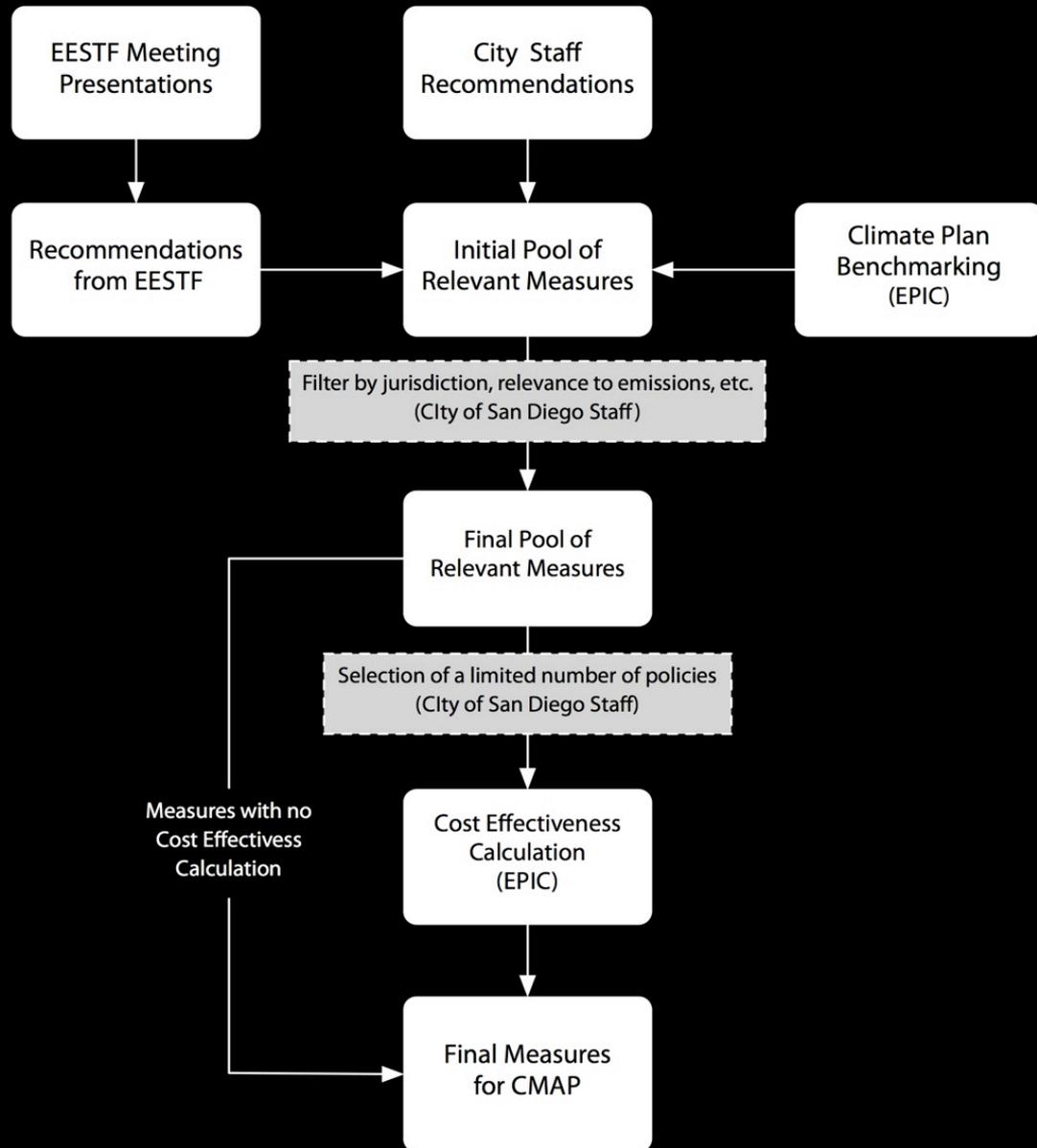


CMAP Categories



CMAP Process

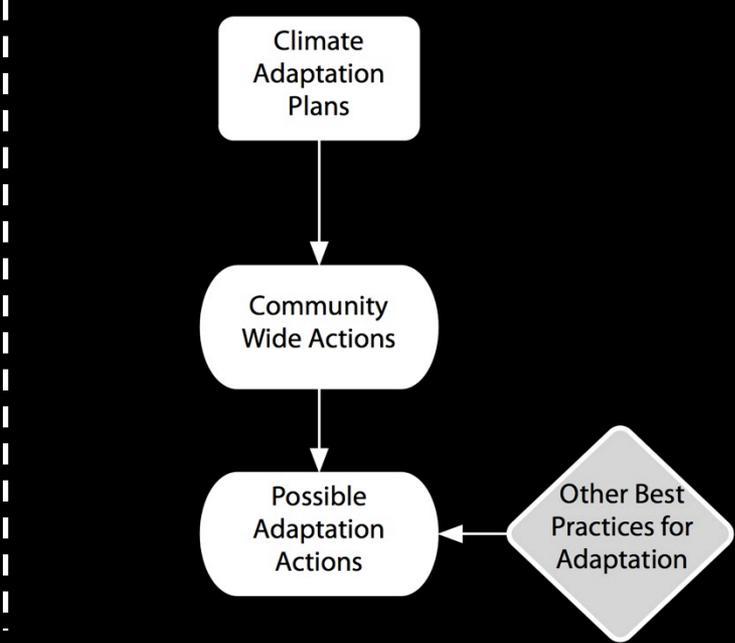
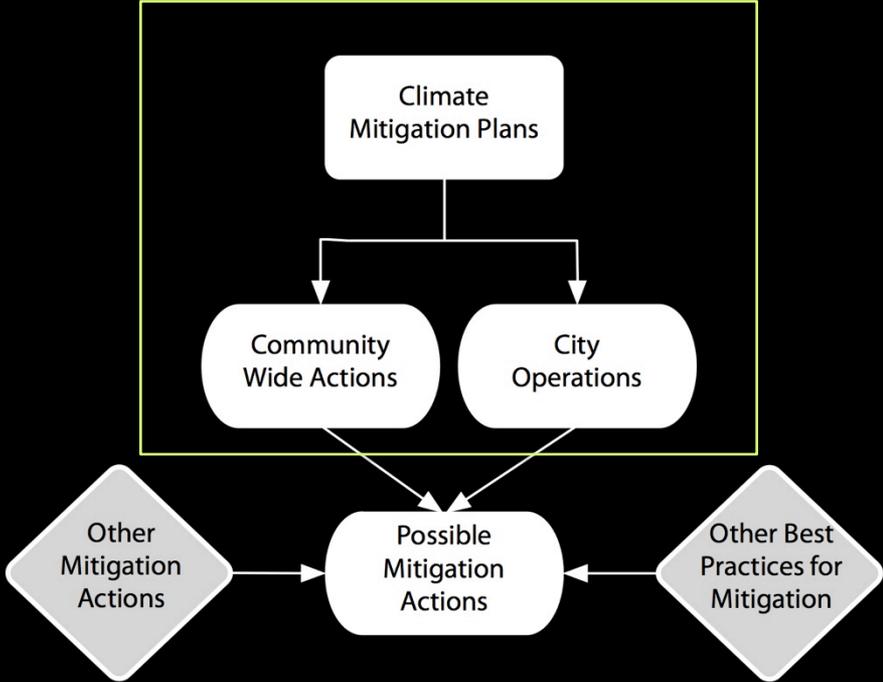
Mitigation Measures



Benchmarking Overview

- Selected 7 Cities
 - Similar population, some CA cities, climate planning
- Reviewed
 - Mitigation plans/Progress Reports
 - Adaptation plans
 - Other best practices
- Detailed Matrix of Measures
 - Includes summary for each category
- Not Best Practices or Recommendations
 - Benchmarking for comparison
 - Might be better ideas out there

Benchmarking Process

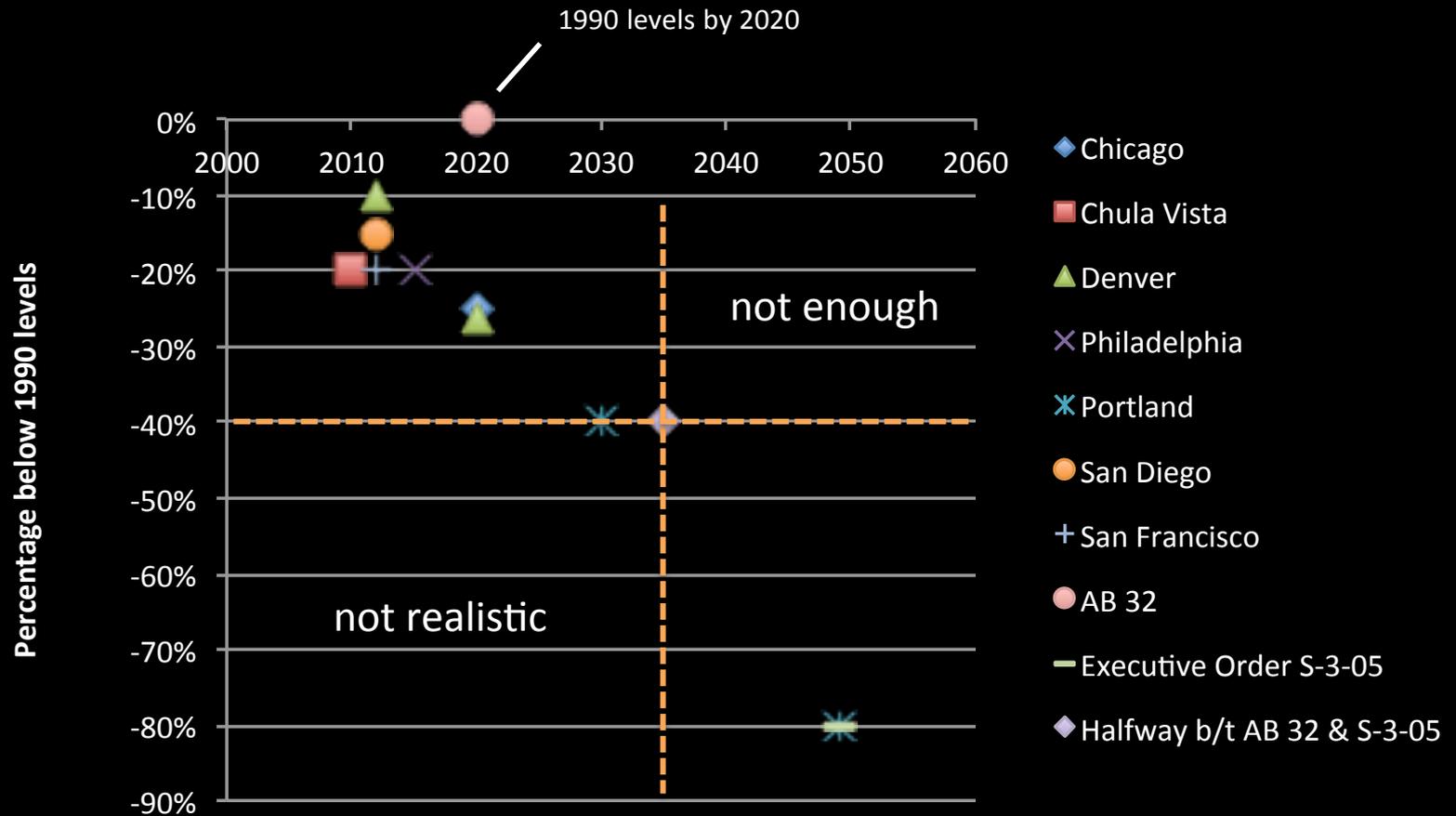


Benchmark Cities

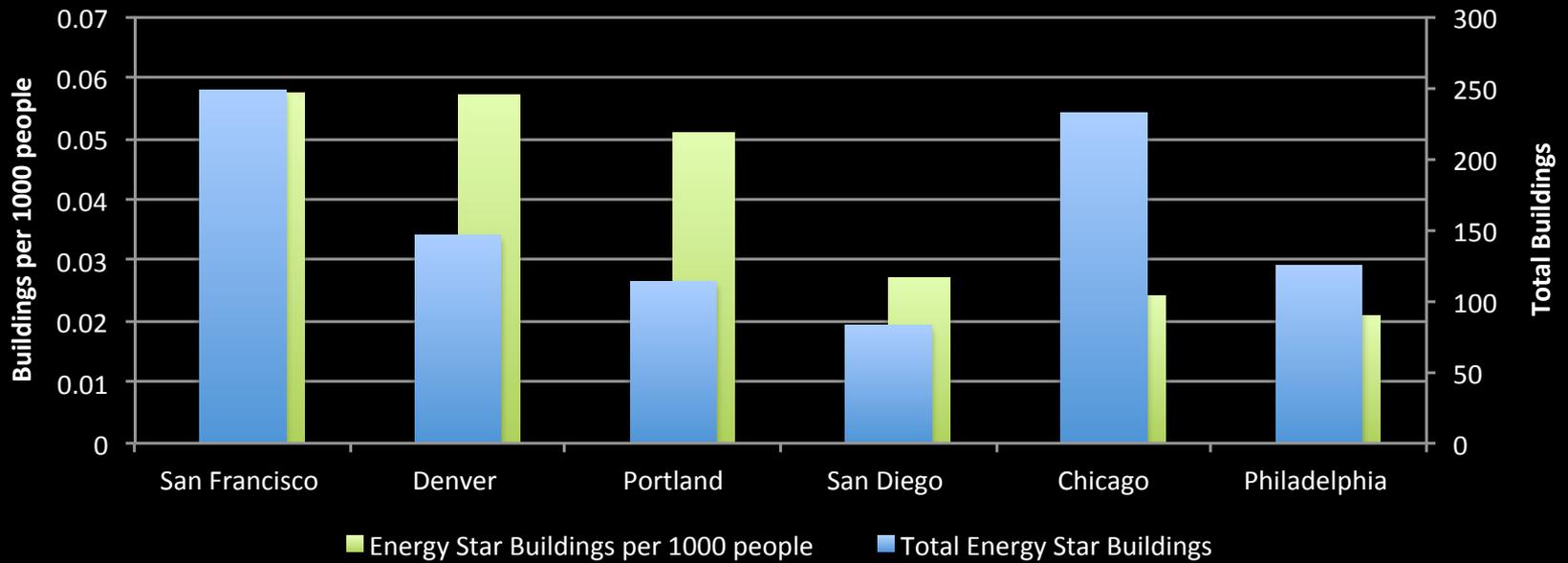
City	Population vs. SD	Year Mitigation Plan Adopted	Short-Term GHG Target	Long-Term GHG Target
Chicago	2.2	2008		25% below 1990 by 2020
Chula Vista	0.2	2008	20% below 1990 levels 2010	
Denver	0.5	2007	10% per capita reduction below 1990 by 2012	25% reduction below 1990 by 2020
Melbourne	0.6	2008	50% below 1996-97 by 2010	Zero net emissions by 2020
Philadelphia	1.2	2007	20% below 1990 by 2015	
Portland	0.4	2009		40% below 1990 by 2030; 80% below 1990 by 2050
San Diego	1.0	2005	15% below 1990 by 2012	
San Francisco	0.6	2004	20% below 1990 by 2012	

Comparison of GHG Targets

Percentage below 1990 levels



Comparison of Energy Star Buildings



Source: US EPA and US Census Bureau

ENERGY

ENERGY

Targets

Building Energy

- Retrofit 50% of commercial and industrial building stock to reduce energy use by 30% by 2020 (Chicago)
- Retrofit 50% of residential units to reduce energy use by 30% by 2020 (Chicago)
- By 2030, achieve zero net GHG emissions in all new buildings and homes. (Portland)

Energy Supply

- By 2030, produce 10% of the total energy used within Multnomah County from onsite renewable sources and clean district energy systems. (Portland)

ENERGY

Categories

BUILDINGS

Existing

Retrofit commercial and industrial buildings
Retrofit residential buildings
Retrocommissioning and building management
Financing

New

New building energy codes/standards
Incentives for new building efficiency

General Building

Marketing and outreach campaign to promote efficiency
Rooftop gardens
Plant trees
Appliance standards

ENERGY SUPPLY

Fossil fuel power plants
Large-scale renewable energy
Distributed generation - fossil fuels
Distributed generation - renewables

MISCELLANEOUS ENERGY

Power purchasing pool
Smart meter / smart grid

ENERGY

Existing Buildings

1. Require certain remodel projects to meet green building standards (Chicago, Melbourne) and renewable energy requirements (Denver).
2. Mandatory disclosure of building energy (Portland) and GHG performance (Melbourne) at the time of sale or lease.
3. Impose a special levy on building owners who have not met minimum greenhouse performance standards by a set date. (Melbourne)
4. Conduct an analysis of existing building stock. (Melbourne)
5. Reinstate mandatory efficiency upgrades at time of sale for commercial buildings. (San Francisco)
6. Offer energy audits to homeowners to diagnose the best ways to improve the energy performance of their homes. (Denver, Melbourne)
7. Create a financing program for efficiency projects. (Philadelphia, Portland)

ENERGY

New Buildings

1. Set new greenhouse performance standards in new retail and wholesale developments to achieve a 15 percent reduction by 2020. (Chicago)
2. Develop a Carbon Offset fee available for projects not meeting City building standards. (Chula Vista)
3. Allow buildings that meet energy efficiency guidelines to receive two more years in property tax relief. (Philadelphia)
4. Change zoning codes to create floor area ratio or height bonuses for energy-efficient buildings. (Philadelphia)
5. Adopt incentives for high performance new construction projects that consider life-cycle carbon emissions impacts. (Portland)

ENERGY

General Buildings

1. Develop Green Awareness Program for homeowners and building operators. (Chula Vista)
2. Establish a targeted public relations and marketing campaign to recognize actions and commitments (Melbourne)
3. Provide green building design assistance, education and technical resources to residents, developers, designers and builders. (Portland)
4. Increase rooftop gardens/plant trees. (Chicago)
5. Provide a tax credit for green roofs. (Philadelphia, Portland)

ENERGY

General Buildings

6. Change regulations so that street tree plantings could occur without the express written consent of property owners. (Philadelphia)
7. Prioritize tree planting in low-canopy, high-crime districts. (Philadelphia)
8. Change city regulations and require more trees to be planted on and around parking lots. (Philadelphia)
9. Using vacant, city-owned land as arbors for trees that could then be transplanted to Philadelphia streets.(Philadelphia)

ENERGY

Electricity Supply

1. Establish at least one new district heating and cooling system. (Portland)
2. Use combined heat and power systems in dense built structures such as city blocks; explore opportunities for district CHP. (Melbourne)
3. Facilitate the installation of at least ten megawatts of on-site renewable energy, such as solar energy. (Portland)
4. Reduce city permit fees and streamline permit process. (San Francisco)

TRANSPORTATION

TRANSPORTATION

Targets

Overall



By 2030, create vibrant neighborhoods where 90% of Portland residents and 80% of Multnomah County residents can easily walk or bicycle to meet all basic daily non-work needs and have safe pedestrian or bicycle access to transit. (Portland)

Reduce VMT

-Reduce Vehicle Miles Traveled by 10% by 2015. (Philadelphia)
-By 2030, reduce per capita daily vehicle-miles traveled (VMT) by 30% from 2008 levels. (Portland)

Transit Use

-Invest in transit improvements and boost Chicago transit system ridership by 30%. (Chicago)

GHG intensity of Public Transport

-Reduce public transport emissions by 20% reduction in by 2020. (Melbourne)

Passenger Cars

-By 2030, increase the average fuel efficiency of passenger vehicles to 40mpg and improve performance of the road system. (Portland)

Bicycle Use

-100% increase in bicycle use by 2015. (Melbourne)

Fuels

-By 2030, reduce the lifecycle GHG emissions of transportation fuels by 20%. Portland)

TRANSPORTATION

Categories

REDUCE VMT

Public transportation

Public transportation- continued

Walkable communities

Bikeable communities

Telecommuting/van pools/ride sharing

Roadway design

Car sharing

Employer/Public awareness programs

Parking

REDUCE VEHICLE EMISSIONS

Reduce vehicle gas use / emissions

Alternative fuels

OTHER

Freight movement

Air transportation

Regional policy/planning

General funding

Metrics

System efficiency

Pricing

TRANSPORTATION

Reduce VMT

1. Redefine zoning near transit by decreasing required parking, instituting parking limits, and increasing increase height limits. (Chicago)
2. Develop a pedestrian and bicycle master plan. (Philadelphia)
3. Support creation of a bicycle sharing program. (Philadelphia)
4. Reduce parking ratios for buildings with designated bike spots. (Philadelphia)
5. Require end-of-trip facilities within city buildings. (Melbourne)
6. Expand carpool and vanpool designated parking at both municipal and private parking facilities. (San Francisco)
7. Require that all proposed large developments and existing public and private parking facilities in the City provide preferential parking for carpools and vanpools.(San Francisco)

TRANSPORTATION

Reduce VMT

8. Redefine zoning near transit by decreasing required parking, instituting parking limits, and increasing increase height limits. (Chicago)
9. Provide incentives for car sharing programs – reclassify car sharing companies for tax purposes, provide on-street parking for car sharing, reduce parking ratios for buildings with bike/car share spots. (Philadelphia)
10. Implement employee commute trip reduction program. (Chicago, San Francisco)
11. Implement new regulations to limit parking (e.g., parking maximums). (Chicago, San Francisco)
12. Create parking subsidies for car share programs, high MPG and alternative fuel vehicles. (Denver)
13. Introduce tiered parking rates based on vehicle size in privately owned parking facilities and City operated garages. (San Francisco)

TRANSPORTATION

Reduce Vehicle Fuel Use/Emissions

1. Promote eco-driving education. (Chicago)
2. Enact anti-idling regulations for private vehicles. (Chicago)
3. Implement traffic signal retiming. (Chicago)
4. Reduce/waive taxes on alternative fuels. (Chicago)
5. Require all public buses entering the City to use low-carbon or clean fuel sources. (Melbourne)
6. Require that diesel fuel sold in the City include at least 10% biodiesel, half of which must be made from sources that can be produced in state. (Portland)

TRANSPORTATION

Other

1. Work with the regional planning authority and other local governments to make reducing carbon emissions and adapting to climate change impacts a funding criteria for transportation expenditures. (Portland)
2. Update the Transportation System Plan to incorporate mode-share goals that will result in a 40% reduction in transportation-related carbon emissions by 2030. (Portland)
3. Establish a method for projecting the life cycle carbon footprint of transportation investments, including embodied energy, operations (VMT and flow) and maintenance. (Portland)
4. Develop a reporting mechanism for tracking transportation carbon emissions. (Portland)
5. Expand traffic calming measures (e.g., traffic circles). (Chicago)

TRANSPORTATION

Other - continued

6. Work with state transportation agency and regional planning agency to implement a congestion-pricing pilot program that prioritizes movement of freight and non-single-occupancy vehicles. (Portland)

LAND USE

LAND USE

Targets

Parks/Open Space

-Provide park and recreation resources within 10 Minutes of 75 % of residents by 2015. (Philadelphia)

-100% of residents live within a 10-minute walk of a green, open space by 2025. (Philadelphia)

Trees

-Increase tree coverage toward 30%in all neighborhoods in 2025. (Philadelphia)

LAND USE

1. Expedite approval process for transit-oriented development (Chicago)
2. Increase council awareness of transit-oriented development (Chicago)
3. Make 20-minute complete neighborhoods a core component of the Portland Plan. (Portland)
4. Limit urban growth boundary and adopt a package of policies and incentives to achieve focused density, particularly around mass transit hubs. (Denver)
5. Advocate for accommodating all population and business growth within the existing Urban Growth Boundary. (Portland)

LAND USE

continued

6. Designate 1,000 acres of parkland as protected Natural Areas in City's park system. (Denver)
7. Prioritize new green space creation within low-served neighborhoods. (Philadelphia)

WASTE

WASTE

Targets

- 90% reduction in waste to landfills by 2020. (Chicago)
- Divert 70 % of solid waste from landfills by 2015. (Philadelphia)
- Double the present recycling rate. (Denver)
- By 2011, reduce landfilled waste by 30% per current customer household through composting, recycling, and modification of collection methods from 2004 baseline. (Denver)
- By 2030, reduce total solid waste generated by 25%. (Portland)
- By 2030, recover 90% of all waste generated. (Portland)
- By 2030, reduce the GHG impacts of the waste collection system by 40% by 2030. (Portland)

WASTE

Recycling/Composting

1. Mandate that 50% of construction debris be diverted from landfills. (Chicago, Denver)
2. Hold neighborhood competitions to promote recycling. (Philadelphia)
3. Increase enforcement and oversight of commercial recycling. (Philadelphia)
4. Expand composting efforts and programs. (Philadelphia)
5. Implement mandatory commercial food waste collection in City and begin collection of residential food waste. (Portland)
6. Assist 1,000 businesses per year to improve compliance with Portland's requirement of paper, metal, and glass recycling. (Portland)

WASTE

Recycling/Composting

7. Provide technical assistance to contractors and construction firms to meet City's new requirement to recycle 75% of construction and demolition debris. (Portland)
8. Institute post-collection sorting for municipal solid waste, particularly for waste coming from sectors like multifamily housing that are typically underperforming on recycling. (Portland)
9. Explore mandatory residential recycling. (Portland, San Francisco)
10. Conduct waste audits in large facilities, provide training and other assistance, and collaborate with associations (e.g., BOMA, restaurant and hotel associations), service providers, unions and others to increase diversion. (San Francisco)

WASTE

Waste Reduction

1. Initiate a public information campaign to discuss the total cost and sources of funding for the City's current residential trash collection and recycling programs to counter the public perception that trash collection is a "free" service, but is actually paid for by Denver taxpayers. (Denver)
2. Provide information and line-item highlights in taxpayer notices of the sources of revenue and expenses associated with City solid waste management services. (Denver)
3. Introduce a fee for trash pick up - "pay as you throw." (Philadelphia)
4. Charge for plastic bags at retailers. (Philadelphia)
5. Ban styrofoam containers from restaurants. (Philadelphia)
6. Charge for plastic bags at retailers. (Philadelphia)

WASTE

Waste Reduction

7. Work with partner organizations to encourage businesses and residents to purchase durable, repairable and reusable goods, to reduce the amount of materials that go to waste, including food; and to reduce consumption of carbon-intensive consumer goods and services. (Portland)
8. Develop a measurement and evaluation mechanism to track waste prevented through preservation, re-use, and thoughtful consumption. (Portland)
9. Clearly label trash cans and other garbage receptacles as “landfill.” (Portland)
10. Research and promote using products that require less materials (e.g. double sided copying). (San Francisco)"

LOCAL FOODS

LOCAL FOODS

Targets

- Bring local food within 10 Minutes of 75% of residents. (Philadelphia)
- By 2030, reduce consumption of carbon-intensive foods. (Portland)

LOCAL FOODS

1. Increase urban gardening and farming. (Philadelphia)
2. Increase the number of farmers markets. (Philadelphia)
3. Publicize the local food source efforts (modeled after London's Capitol Growth strategy. (Philadelphia)
4. Leverage vacant land for food production. (Philadelphia)
5. Require neighborhood grocery stores to stock a certain amount of fresh and local produce (within a 100 mile radius of city). (Philadelphia)
6. Integrate sustainable food system issues, and where practical, quantitative goals and metrics, into planning processes. (Portland)

LOCAL FOODS

continued

7. Develop policy and provide programmatic resources to significantly increase the percentage of home-grown and locally sourced food, including the support of farmers markets and community supported agriculture, the use of public and private land and rooftops for growing food, promoting fruit and nut trees as options for the 33,000 yard trees to be planted as part of the Grey to Green initiative, and develop or facilitate 1,000 new community garden plots. (Portland)
8. Establish quantitative metrics for consumption of regionally sourced food. (Portland)

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