

The 2013 City Energy Efficiency Scorecard

Eric Mackres, Local Policy Manager September 19, 2013 MWCOG BEEAC meeting

American Council for an Energy-Efficient Economy (ACEEE)

- 33 year old, nonprofit 501(c)(3) dedicated to advancing energy efficiency through research, policy, and technical assistance.
- Focus on end-use efficiency in Industry, Buildings and Equipment, Utilities & Transportation; Economic Analysis; Behavior; Finance.
- Policy Program working at National, State, and Local levels
- Local Policy work focused on:
 - Technical assistance to local governments and community groups
 - Local Policy Toolkit, policy calculator, best practice research
 - Project on energy efficiency programs for multifamily housing
 - City Energy Efficiency Scorecard (today's topic) & related Self-Scoring Tool (coming soon)
 - www.aceee.org/portal/local-policy











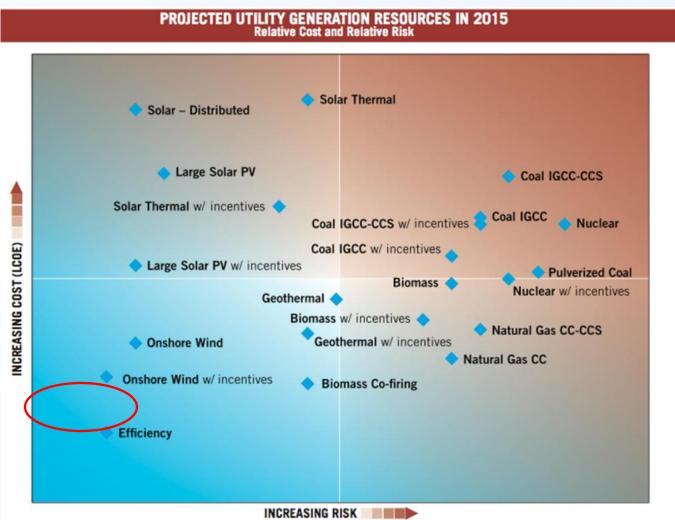




Why Energy Efficiency?

It's the Cheapest and Lowest Risk Energy Resource

(And saves money, creates jobs, increases resilience, improves health and the environment...)





Why Cities?





- Where most energy is used 80% of U.S. consumption in cities, 66% globally
- Efficiency makes cities better all aspects of city life can be improved, but currently underutilized for economic and community development
- Actions by cities are important have considerable influence over energy use



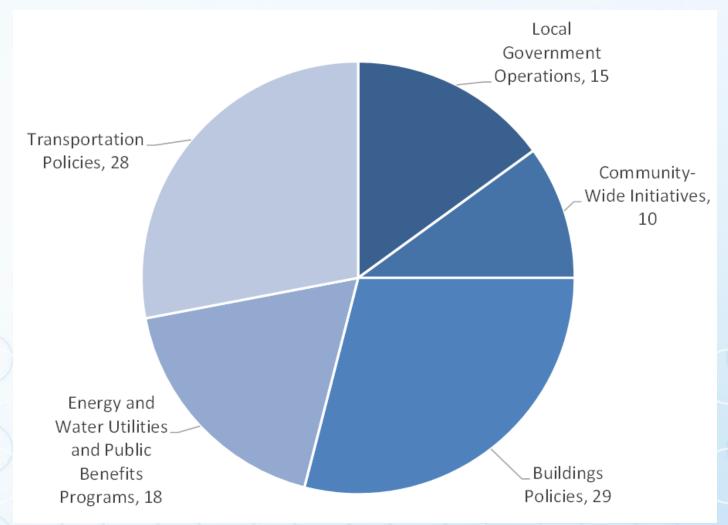
Goals



- Compare large cities exclusively on efficiency – identifying leaders and where improvement is needed
- 2. Focus on policies highlight important actions that can be taken
- 3. Roadmap for other cities examples and best practices



Policy Areas and Points





Buildings Metrics



Buildings Policies	29	29%
Building Energy Code Stringency	6	6%
Commercial	3	
Residential	3	
Building Energy Code Implementation	6	6%
Spending on code compliance	2	
Third-party code compliance strategies	2	
Upfront code support	2	
Requirements and Incentives for Efficient Buildings	9	9%
Above code requirements for certain private buildings	2	
Energy audit requirements	1	
Energy retrofit requirements	2	
Incentives or financing programs	3	
Building energy savings goals	1	
Benchmarking, Rating, and Disclosure	6	6%
Commercial	3	
Residential	3	
Comprehensive Efficiency Services	2	2%







Energy and Water Utility Policies and Public Benefits Programs	18	18%
Spending on Electricity Efficiency Programs	4	4%
Spending on Natural Gas Efficiency Programs	3	3%
Savings from Electricity Efficiency Programs	2	2%
Energy Efficiency Savings Targets and Funding Agreements	2	2%
Provision of Energy Data by Utility	2	2%
Availability of energy consumption data to customers	0.5	
Availability of aggregated building data to owners	0.5	
Availability of community-wide data for planning	0.5	
Advocacy to improve customer access to utility energy data	0.5	
Efficiency Efforts in Water Services	5	5%
Water efficiency	2	
Energy efficiency in water services	2	
Green stormwater infrastructure	1	





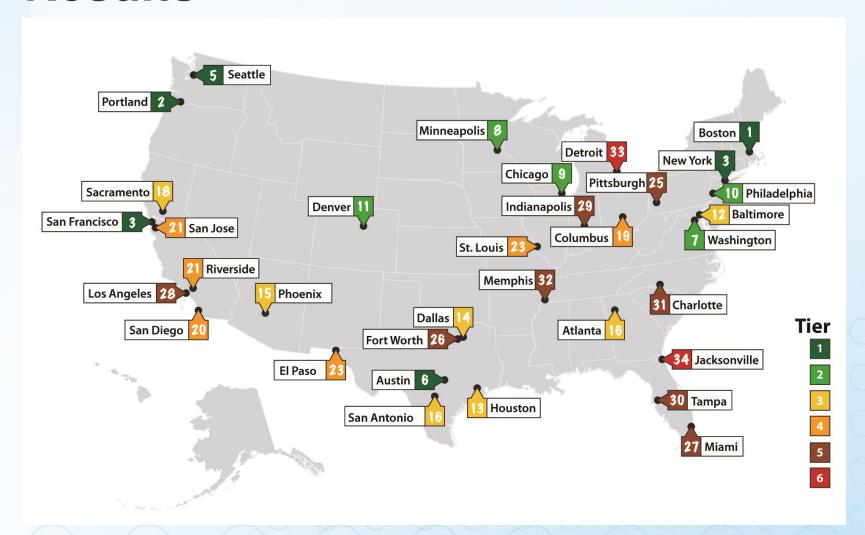
Transportation Metrics

Transportation

Transportation Policies	28	28%
Location Efficiency	8	8%
Location-efficient zoning	2	
Removal or reduction of minimum parking requirements	2	
Complete streets policy	2	
Location efficiency incentives and information	2	
Mode Shift	8	8%
Integration of transportation and land use planning	4	
Car sharing	1	
Bicycle sharing	1	
Transportation demand management programs	2	
Transit	6	6%
Transportation funding	4	
Access to transit services	2	
Efficient Vehicles and Driver Behavior	3	3%
Incentives for energy-efficiency vehicle purchase	1	
Incentives for electric vehicle charging infrastructure	0.5	
Efficient driver behavior	0.5	
Transportation partnerships	1	
Freight—Intermodal Freight Facilities	3	3%



Results



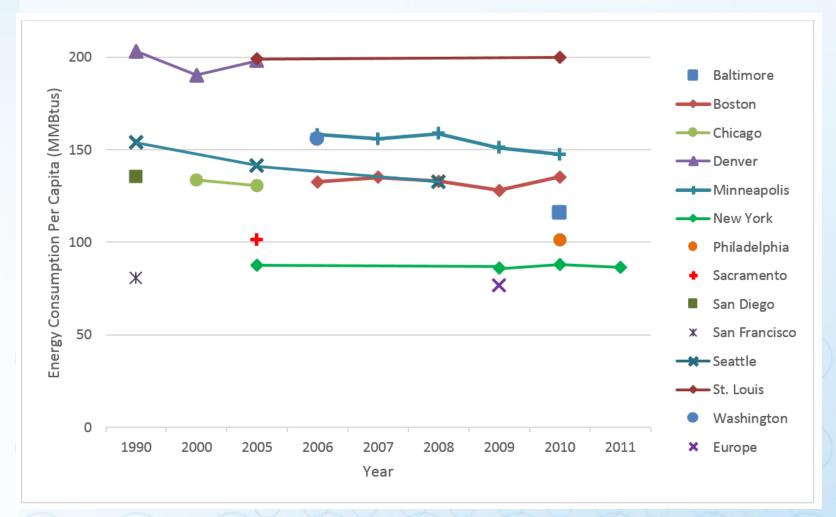


Overall and Policy Area Scores

Rank	City	State	Local Government Operations (15 pts.)	Community- Wide Initiatives (10 pts.)	Buildings Policies (29 pts.)	Energy & Water Utility Policies and Public Benefits Programs (18 pts.)	Transportation Policies (28 pts.)	TOTAL SCORE (100 pts.)
1	Boston	MA	11	9.5	21.5	15.75	19	76.75
2	Portland	OR	13.75	7.5	14.5	14.75	19.5	70.73
3	New York City	NY	10.5	9	22	15.25	13	69.75
3	San Francisco	CA	13	8	17	15.75	16	69.75
5	Seattle	WA	10.75	6	22.5	14.75	11.25	65.25
6	Austin	TX	9.75	9	21.5	10.75	11	62
7	Washington	DC	8.25	4	21	8.75	14	56
8	Minneapolis	MN	10	6.5	10	13.75	15	55.25
9	Chicago	IL	10.75	8	12	13.5	10.5	54.75
10	Philadelphia	PA	10.5	8.5	11.5	8.5	15.5	54.5
11	Denver	СО	11	7.5	7.5	14.25	12.5	52.75
12	Baltimore	MD	8.75	8	9	8.75	12	46.5
13	Houston	TX	8.75	6	11.5	9	10	45.25
14	Dallas	TX	9.5	6	7.5	8.25	13	44.25
15	Phoenix	ΑZ	12.25	4.5	11	10.25	5.5	43.5
16	Atlanta	GA	6.75	6	6	6.25	17.5	42.5
16	San Antonio	TX	9.5	6	7.5	8	11.5	42.5
18	Sacramento	CA	8.5	4.5	8.5	11.75	7.5	40.75



Energy Consumption Trends



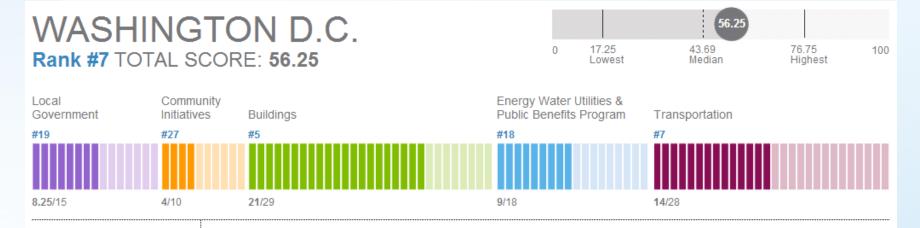


Findings

- The top scoring cities have comprehensive efficiency strategies, and broad-ranging policies or programs, often history of implementing efficiency.
- All cities, even the highest scorers, have room for improvement. Only 11 cities scored more than half of the possible points.



Washington, DC - #7



CITY STATS

• City pop.: 632,323

Land area: 61 mi²

Metro pop.: 5,860,342

- Utilities: WGL (gas), PEPCO (elec)
- Non-car commuters: 60%

BEST PRACTICES

- Clean and Affordable Energy Act of 2008 requires large commercial and multifamily buildings to rate and report energy use.
- . DC Sustainable Energy Utility is charged with saving energy and creating jobs through its efficiency programs.
- · High presence of efficient freight facilities serving the city.

AREAS FOR IMPROVEMENT

- Develop energy savings goals for local government operations.
- Increase use of combined heat and power and efficient district energy systems.



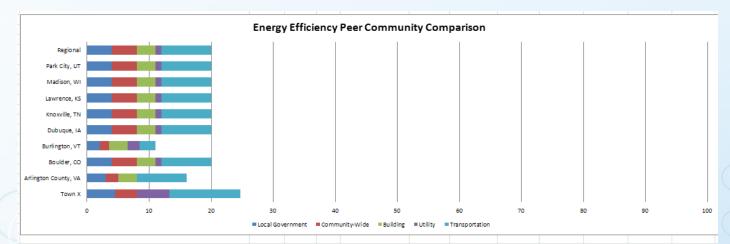
Strategies to Improve Efficiency

- Lead by example in government operations.
- Adopt energy savings goals.
- Actively manage energy use, track and communicate progress.
- Enable access to data on energy usage.
- Adopt policies to improve efficiency in new and existing buildings.
- Partner with utilities to promote efficiency programs.
- Encourage location-efficient development and greater travel mode choices.



Local Energy Efficiency Self-Scoring Tool

- User-oriented, spreadsheet tool to score any local gov't on City Scorecard metrics
- Beta version planned for release in October, testers needed

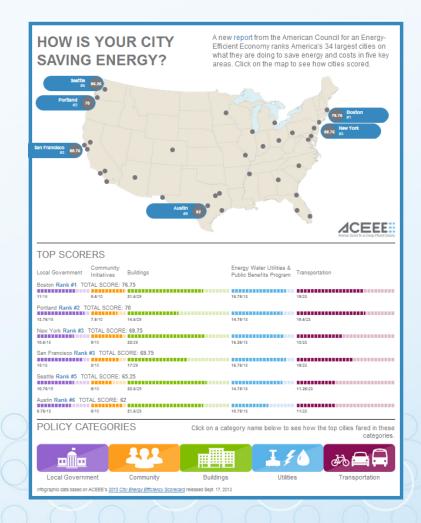


Analysis of Results							
	Policy Area	Score	Policy Analysis	Peer City with Best Practices			
	Buildings Policies	0.00	Within Buildings Policies, the city scored lowest in Improving Access to Energy Usage in				
			Buildings. Programs and policy types to improve your score include the following: Upfront				
Most Room for Improvement			Support for Energy Code Compliance, Energy Audit Requirements, Commercial Building				
			Benchmarking and Disclosure Policies, and Residential Building Benchmarking and				
			Disclosure Policies	TBD			
	Community-Wide	3.50	Within Community-Wide Initiatives, the city scored highest in Informing the Community.				
Day Day Caralina	Initiatives		This high score stems from having several of the following policies put in place: Annual				
Best Performing			Progress Reporting				
				TBD			
	Local Government	4.50	Within Local Government Operations, the city's worst scoring policy step was				
Forders Operation in the Different Section	Operations		Comprehensive Energy Management Strategy for Government Operations				
Explore Opportunities for Different Sectors							
				TBD			



Thank You

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Report and infographic available at aceee.org/local-policy/city-scorecard

