The 2015 City Scorecard: Assessing energy efficiency policies in US cities

Dave Ribeiro
Senior Research Analyst, ACEEE
Climate Action 2016
University of Maryland
May 4, 2016
American Council for an Energy-Efficient Economy (ACEEE)

- 35 year old, nonprofit 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; and finance
- Policy program working at national, state, and local levels and some international work
- Local policy work focused on:
  - City Energy Efficiency Scorecard & related Self-Scoring Tool
  - Projects on energy efficiency in multifamily housing; community resilience; and energy affordability
  - Technical assistance to local governments and community organizations
  - Local Policy Toolkit, policy calculator, and best practice research
  - www.aceee.org/portal/local-policy
Presentation outline

• Why energy efficiency?
• Overview of ACEEE’s 2015 City Energy Efficiency Scorecard
• Discussion of energy planning and EE
• City progress toward achieving community-wide energy efficiency-related goals
• Examples of energy efficiency initiatives in cities on track to achieve goals
Why include energy efficiency as part of climate planning?

• **Mitigation.** Efficiency reduces energy waste and pollution.

• **Adaptation.** Efficiency promotes more resilient energy systems.

• **Secure, sustainable and affordable energy.** Efficiency helps make energy more affordable and reduces vulnerability to price volatility.
Scorecard policy areas and points

<table>
<thead>
<tr>
<th>Policy area and subcategories</th>
<th>Maximum score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Local government operations</strong></td>
<td>15</td>
</tr>
<tr>
<td>Local government energy efficiency goals</td>
<td>4</td>
</tr>
<tr>
<td>Performance management</td>
<td>2.5</td>
</tr>
<tr>
<td>Procurement and construction policies</td>
<td>3.5</td>
</tr>
<tr>
<td>Asset management</td>
<td>5</td>
</tr>
<tr>
<td><strong>Community-wide initiatives</strong></td>
<td>10</td>
</tr>
<tr>
<td>Community-wide energy efficiency goals</td>
<td>4</td>
</tr>
<tr>
<td>Performance management</td>
<td>2</td>
</tr>
<tr>
<td>District energy and combined heat and power</td>
<td>2.5</td>
</tr>
<tr>
<td>Urban heat island mitigation</td>
<td>1.5</td>
</tr>
<tr>
<td><strong>Buildings policies</strong></td>
<td>29</td>
</tr>
<tr>
<td>Building energy code stringency</td>
<td>6</td>
</tr>
<tr>
<td>Building energy code compliance</td>
<td>6</td>
</tr>
<tr>
<td>Requirements and incentives for efficient buildings</td>
<td>9</td>
</tr>
<tr>
<td>Benchmarking, rating, and transparency</td>
<td>6</td>
</tr>
<tr>
<td>Comprehensive efficiency services</td>
<td>2</td>
</tr>
<tr>
<td><strong>Energy and water utilities</strong></td>
<td>18</td>
</tr>
<tr>
<td>Electric efficiency spending</td>
<td>4</td>
</tr>
<tr>
<td>Natural gas efficiency spending</td>
<td>2</td>
</tr>
<tr>
<td>Electric savings</td>
<td>2</td>
</tr>
<tr>
<td>Natural gas savings</td>
<td>1</td>
</tr>
<tr>
<td>Energy efficiency targets and requirements</td>
<td>2</td>
</tr>
<tr>
<td>Energy data provision</td>
<td>2</td>
</tr>
<tr>
<td>Efficiency efforts in water services</td>
<td>5</td>
</tr>
<tr>
<td><strong>Transportation policies</strong></td>
<td>28</td>
</tr>
<tr>
<td>Location efficiency</td>
<td>8</td>
</tr>
<tr>
<td>Mode shift</td>
<td>8</td>
</tr>
<tr>
<td>Transit</td>
<td>6</td>
</tr>
<tr>
<td>Efficient vehicles and vehicle behavior</td>
<td>3</td>
</tr>
<tr>
<td>Freight</td>
<td>3</td>
</tr>
<tr>
<td><strong>Maximum total score</strong></td>
<td>100</td>
</tr>
</tbody>
</table>
Plans that detail US cities’ energy efficiency priorities

SUSTAINABLE SALT LAKE  PLAN 2015

One New York
The Plan for a Strong and Just City
Goal types in US cities

- Climate goals
  - Boston aims to reduce greenhouse gas emissions reductions by 25% by 2020 from a 2015 baseline

- Energy consumption goals
  - Baltimore aims to reduce its energy use by 30% by 2022 from 2006 baseline levels
Progress toward community-wide goals

• Cities with goal: 30 out of 51
• Cities with available data to project savings: 16 out of 51
• Cities on track for goal: 11 out of 51
WASHINGTON D.C.

Rank #3 TOTAL SCORE: 76.5

CITY STATS
- Point Change from 2013 Scorecard: +20.5
- City pop.: 646,449
- Metro pop.: 5,949,859
- Utilities: PEPCO/DC SEU (elec), Washington Gas

BEST PRACTICES
- Clean and Affordable Energy Act of 2008 requires large commercial and multifamily buildings to benchmark and report energy use.
- Transportation demand management programs promoted through goDCgo, and car- and bicycle-sharing programs encourage a switch from driving to other modes of transportation.
- High levels of transit service.
- DC Sustainable Energy Utility is charged with achieving energy savings through efficiency programs.

AREAS FOR IMPROVEMENT
- Develop a specific energy efficiency target for drinking water and wastewater treatment services.

POLICY CATEGORIES

Infographic data based on ACEEE's 2015 City Energy Efficiency Scorecard released May 2015

http://aceee.org/local-policy(city-scorecard)
LOS ANGELES
Rank #12 TOTAL SCORE: 51.5

CITY STATS
- Point Change from 2013 Scorecard: +20
- City pop.: 3,884,307
- Metro pop.: 13,131,431
- Utilities: LADWP (elec), SoCalGas (gas)

BEST PRACTICES
- Adopted an electric savings target for municipal utility that is more stringent than statewide electric savings target for municipal utilities.
- Strong efficiency efforts in water services, including drinking water, wastewater, and stormwater management.
- Established strategies to mitigate urban heat island and target to plant 1 million trees.

AREAS FOR IMPROVEMENT
- Encourage more compact communities, well connected to transit, and a switch from driving to other modes of transportation.
- Increase resources for building energy code compliance.

POLICY CATEGORIES

Infographic data based on ACEEE’s 2015 City Energy Efficiency Scorecard released May 2015

http://aceee.org/local-policy/city-scorecard
Conclusions

• Energy efficiency is a critical component of any climate or sustainable energy plan.
• Many US cities are showing strong leadership on EE as a way to address climate change.
• Room for improvement in setting goals and tracking performance.
Questions?

Dave Ribeiro
Senior Analyst
ACEEE
202-507-4750
dribeiro@aceee.org