Citywide Action
2015 Energy Update

Presented by – Denise Quarles, City of Atlanta
Ben Taube, City Energy Advisor
March 2015
Overview

1. Atlanta’s Citywide Sustainability Initiative
2. City Energy Footprint
3. Atlanta Better Buildings Challenge
4. Southface - ACBI
5. City Energy Project
6. Invest Atlanta - PACE
7. Q & A
Atlanta’s Sustainability Initiative
5 Stakeholders, 10 Impact Areas…100+ initiatives
Citywide Emissions

Greenhouse Gas Emissions

- 10% Reduction citywide
- 7% Reduction in municipal assets
  {3rd party certified}

Climate Action Plan

- 1st Publication 2012 by GA Tech
- 2nd Publication 2013 by OoS
  {3rd party certified}

City of Atlanta Emissions 2013

Target: Reduce GHG emissions 20% by 2020 (BL2009)
Overview Energy Efficiency Goals

- Reduce citywide commercial building energy and water consumption **20% by 2020**
- Triple the renewable capacity **by 2015**
Atlanta Better Buildings Challenge

Reduce **energy and water** consumption by at least **20 percent** in participating buildings across Atlanta by **2020**

Atlanta collectively showing nearly **$3M** in savings in the last year alone

404 buildings & 94M sq ft

**CITY Leading by Example:**

- **73** City Facilities

**ENERGY Savings Leaders** (‘09 baseline):
- Airport South and North Parking – **43%**
- Hemphill WTC – **47%**

**NEWEST participants:**

- **EMORY**
- **COX ENTERPRISES**
- **FULTON COUNTY**
The Office of Sustainability has:
- Energy modeling of all 31 active fire stations
  - 5 assessments completed
- Average of 45% energy savings with 5-7 year payback period
ACBI
Energy Conservation Measures

RM Clayton WTC
Historic Fourth Ward Park
Atlanta Civic Center

American Society of Civil Engineers
Cogeneration Project of the Year

Urban Land Institute Award 2013 –
Historic 4th Ward Park

U.S. Department of Energy
1st Better Buildings Challenge Showcase

3rd Nationally - EPA Energy Star Buildings
Overview City Energy Project

- CEP is a national initiative aimed at **improving the energy efficiency of commercial buildings.**

- **Priorities**
  - Innovative economic solutions
  - cut energy bills
  - boost the local economy
  - reduce pollution

Move Atlanta toward becoming a top tier city for sustainability.
Through CEP, Atlanta will develop its own *locally tailored plan to advance energy efficiency* and reduce waste in its buildings.

The plan will integrate many strategies to promote:

- Energy efficient building operations
- Energy efficiency investment opportunities

First priority:
- Defining what those opportunities are for City assets
- Identifying ways to leverage existing programs

**Next Step**
- Benchmarking, Transparency, & Audit Ordinance

[www.p2catl.com](http://www.p2catl.com)
Questions
Alternative Fuel Vehicles

Atlanta’s the top U.S. market for LEAF sales for 13 of past 15 months

Electric Car Sales Are Skyrocketing In Georgia
Registered electric vehicles and percentage growth in the United States

- California: 28,634 (614%) in March 2014 compared to 1,469 in March 2013
- Georgia: 10,482 (138%) in March 2014 compared to 1,469 in March 2013
- Washington: 8,488 (116%) in March 2014 compared to 3,559 in March 2013
- Michigan: 6,576 (128%) in March 2014 compared to 3,038 in March 2013
- Texas: 6,533 (128%) in March 2014 compared to 2,862 in March 2013
In large cities with significant public transportation, buildings typically account for 70% or more of CO$_2$ emissions and energy usage.
Totaling approximately 5.8 billion SF of floor space in major real estate markets.
According to a 2012 EPA analysis, buildings that used Portfolio Manager to track energy usage between 2008 and 2011 realized an annual energy savings of 2.4% and a total energy savings of 7%.

<table>
<thead>
<tr>
<th>Component</th>
<th>Audience</th>
<th>Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benchmarking</td>
<td>Building Owners</td>
<td>Owners compare their properties to peers and become aware of opportunities for improving building performance</td>
</tr>
<tr>
<td>Reporting</td>
<td>Policy makers</td>
<td>Target incentives toward low performers</td>
</tr>
<tr>
<td></td>
<td>Utility program administrators</td>
<td>ID and support low performing buildings and market sectors</td>
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<tr>
<td></td>
<td>Researchers</td>
<td>Track progress toward goals</td>
</tr>
<tr>
<td>Transparency</td>
<td>Buyers and tenants</td>
<td>Market considers building energy performance when making purchasing and leasing decisions.</td>
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<tr>
<td></td>
<td>Appraisers</td>
<td>High performing buildings achieve higher valuations and lower vacancy rates</td>
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<td></td>
<td>Financing and investment firms</td>
<td></td>
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</tbody>
</table>
ENGLY STAR Performance Category

- Excellent (91 or greater)
- Good (75 to 90)
- Fair (50 to 74)
- Poor (below 50)
Chicago’s Building Energy Use Benchmarking Ordinance

**Benchmarking:** Non-industrial buildings >50,000 square feet required to annually benchmark energy consumption using ENERGY STAR Portfolio Manager

- Commercial buildings >250,000 sq. ft. – June 1, 2014
- Residential buildings >250,000 sq. ft. – June 1, 2015
- Commercial buildings 50,000-250,000 sq. ft. – June 1, 2015
- Residential buildings 50,000-250,000 sq. ft. – June 1, 2016

**Data Verification:** First year and every third year, data verification required by LA, PE, or other professional designated by the Commissioner

**Reporting & Disclosure:**
- Annual reporting to the City
- City publishes annual report on overall trends
- Building-level data publicly shared starting the 2nd year of benchmarking
Benchmarking often serves as the foundation for a complimentary suite of energy efficient policies and programs.
# Building Benchmarking Policy Elements

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Short Name</th>
<th>Enacted</th>
<th>First Compliance Deadline</th>
<th>Municipal</th>
<th>Commercial</th>
<th>Multifamily</th>
<th>To Gov’t</th>
<th>On Public Website</th>
<th>Time of Transaction</th>
<th>To Current Tenants</th>
<th>Energy Star</th>
<th>Other</th>
<th>Utility Req’t</th>
<th>Water Use Tracking</th>
<th>Additional Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austin</td>
<td>Energy Conservation Audit &amp; Disclosure (ECAD) Ordinance</td>
<td>Nov 2008</td>
<td>June 2011</td>
<td>✓</td>
<td>10K SF+</td>
<td>Audits</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>✓</td>
<td>ACLARA</td>
<td>-</td>
<td>-</td>
<td>Audits &amp; mandatory upgrades for multifamily buildings</td>
</tr>
<tr>
<td>Boston</td>
<td>Boston Energy Reporting and Disclosure Ordinance</td>
<td>May 2013</td>
<td>May 2014</td>
<td>✓</td>
<td>35K SF+</td>
<td>35+ units or 35K SF+</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>Periodic energy assessments and/or actions</td>
<td></td>
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<tr>
<td>Cambridge</td>
<td>Building Energy Use Disclosure Ordinance</td>
<td>July 2014</td>
<td>December 2014</td>
<td>10K SF+</td>
<td>25K SF+</td>
<td>50+ units</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Chicago</td>
<td>Chapter 18-14. Building Energy Use Benchmarking Ordinance</td>
<td>Sept 2013</td>
<td>June 2014</td>
<td>50K SF+</td>
<td>50K SF+</td>
<td>50K SF+</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>-</td>
<td>Verification of benchmarking data by licensed professional 1&lt;sup&gt;st&lt;/sup&gt; year, then every 3 years</td>
<td></td>
</tr>
<tr>
<td>District of Columbia</td>
<td>Clean and Affordable Energy Act of 2008</td>
<td>July 2008</td>
<td>April 2013</td>
<td>10K SF+</td>
<td>50K SF+</td>
<td>50K SF+</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>Energy Star</td>
<td>Target Finder</td>
<td>-</td>
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<tr>
<td>Minneapolis</td>
<td>Chapter 47.190. Commercial Building Rating and Disclosure Ordinance</td>
<td>Jan 2013</td>
<td>May 2014</td>
<td>25K SF+</td>
<td>50K SF+</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
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<td>-</td>
<td></td>
</tr>
<tr>
<td>New York City</td>
<td>Local Law 84 (additional requirements in LL 87, LL 88)</td>
<td>Dec 2009</td>
<td>August 2011</td>
<td>10K SF+</td>
<td>50K SF+</td>
<td>50K SF+</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>ASHRAE level II audits &amp; RCx (LL 87), lighting upgrades &amp; submetering (LL 88)</td>
<td></td>
</tr>
<tr>
<td>Philadelphia</td>
<td>§59-3402 of the Philadelphia Code</td>
<td>June 2012</td>
<td>October 2013</td>
<td>50K SF+</td>
<td>50K SF+</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>Buyers, Lessees, Lenders</td>
<td>-</td>
<td>-</td>
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<tr>
<td>San Francisco</td>
<td>Existing Commercial Buildings Energy Performance Ord.</td>
<td>Feb 2011</td>
<td>October 2011</td>
<td>10K SF+</td>
<td>10K SF+</td>
<td>-</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>† Buyers, Lessees, Lenders</td>
<td>✓</td>
<td>† ASHRAE level I or II audits or RCx every 5 years</td>
<td></td>
</tr>
<tr>
<td>Seattle</td>
<td>CB 116731</td>
<td>Jan 2010</td>
<td>October 2011</td>
<td>20K SF+</td>
<td>20K SF+</td>
<td>20K SF+</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>-</td>
<td>✓</td>
<td>† Buyers, Lessees, Lenders</td>
<td>✓</td>
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</tbody>
</table>
Buildings in Atlanta account for:

- 59% of Greenhouse gas emissions
- 66% of energy consumption

Ordinance to Implement Benchmarking, Transparency, and Audits is in City Council process

- 3.31.15 in Committee Hearing
- Full Council Approval in April
- Year 1 will cover 250M SqFt
- Growing to 460M SqFt
Who does this apply to –

- City Municipal buildings over 10,000 SqFt
- Commercial buildings

When –

- Annual Benchmarking Requirement
- Annual Transparency Reporting through Portfolio Manager
- Audit Required once every 10 years – ASHRAE Level 2
- Retro Commissioning is optional every 10 years
### Atlanta Benchmarking Ordinance

<table>
<thead>
<tr>
<th>Property Type</th>
<th>Covered City Property</th>
<th>Covered Non-City Property, 50,000 sqft+</th>
<th>Covered Non-City Property, 25,000 sqft+</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date first benchmarking submission due</td>
<td>April 2015</td>
<td>90 days after passage</td>
<td>June 2017</td>
</tr>
<tr>
<td>Date of first benchmarking disclosure</td>
<td>July 2015</td>
<td>September 2016</td>
<td>September 2017</td>
</tr>
</tbody>
</table>
Overview PACE
Property Assessed Clean Energy

Goal:
• Support citywide environmental sustainability efforts
• Finance energy and water savings projects
• Provide access to private capital for building retrofits

Structure:
• Create $500 million pool of private capital for projects
• Provide upfront cash for building improvements
• Owners repay over 20 years, billed with property tax
Overview PACE
Property Assessed Clean Energy

Background:
• Atlanta City Charter amended to allow PACE financing
• Fund manager and investor identified

Next Steps:
• Pilot program to require approval from banks
• Prepare for bond validation and issuance
• Develop plan for billing with annual property tax
• Launch program in mid 2015
Q & A - Contact

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