



**Better  
Buildings®**  
U.S. DEPARTMENT OF ENERGY

# Tackling Efficiency in CRE: Lessons from Leading Cities

Better Buildings Summit

May 10, 2016

# Agenda

- 11:00** Welcome & Introductions
- 11:05** Speaker Presentations
- 11:20** Moderated Discussion
- 11:55** Key Takeaways
- 12:00** Audience Q&A
- 12:30** Adjourn

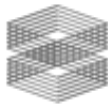
# Today's Presenters

**Ellen Bell**



**Manager,  
Environmental Defense Fund  
Clean Energy**

**JP Flaherty**



TISHMAN SPEYER

**Director of Sustainability,  
Tishman Speyer**

**Jaxon Love**



**Sustainability Manager,  
Shorenstein**

Ellen Bell,  
Environmental Defense Fund



CLIMATE CORPS



# Chicago: In Depth

65 buildings



21 million  
kWh

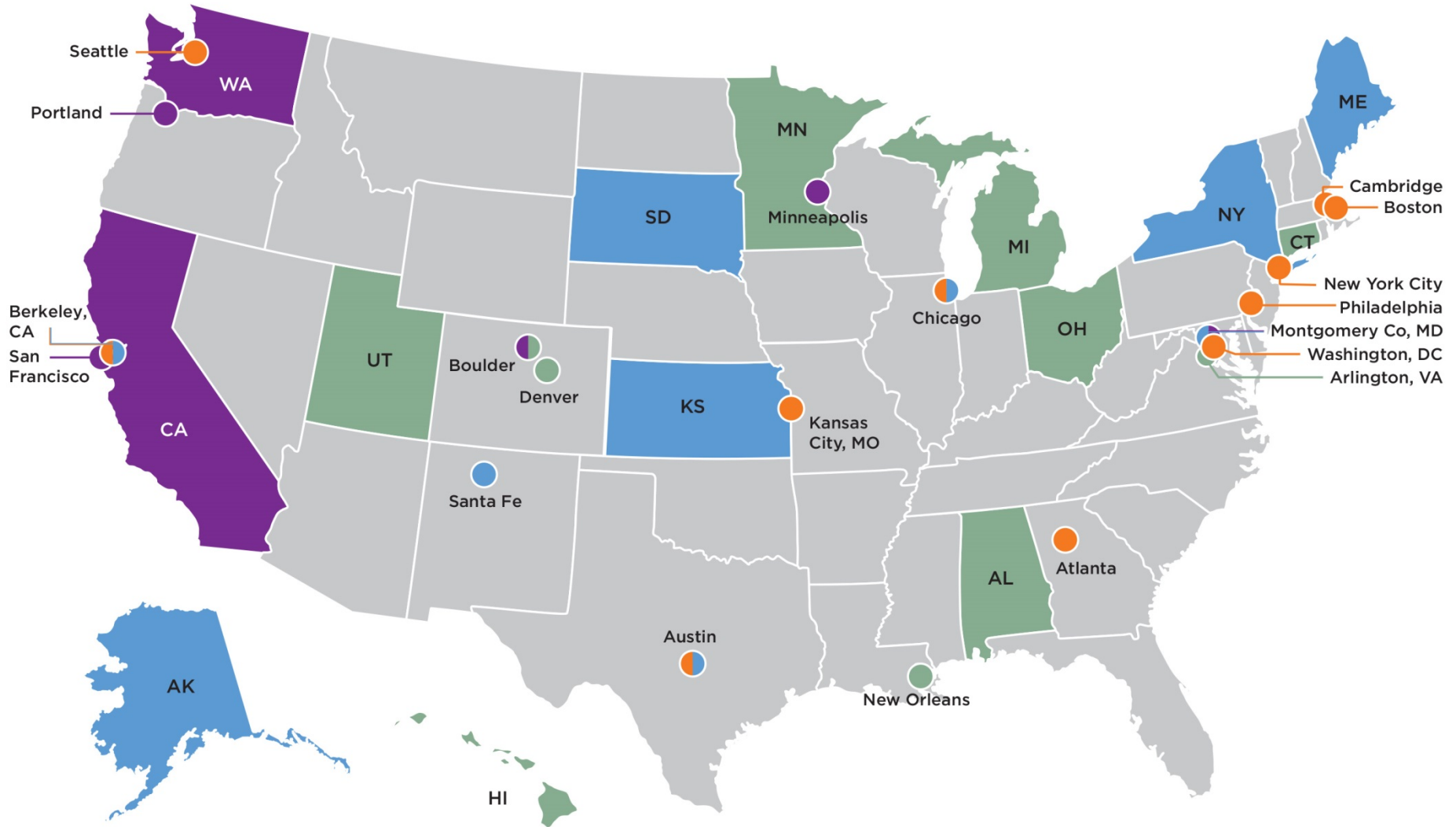


2,000  
homes



Jaxon Love,  
Shorenstein

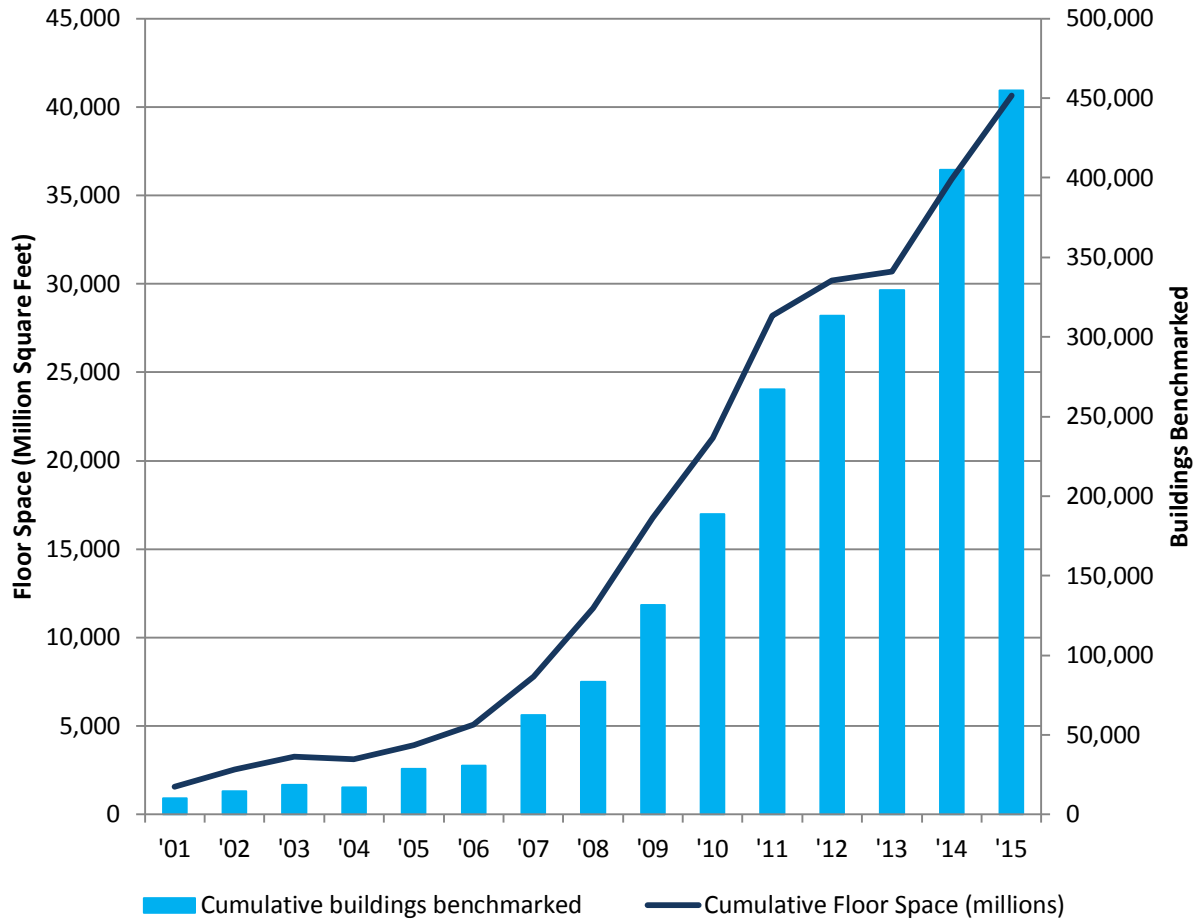
# U.S. Building Benchmarking and Transparency Policies



- Commercial policy adopted
- Commercial & multifamily policy adopted
- Public buildings benchmarked
- Single-family transparency adopted



# ENERGY STAR Portfolio Manager<sup>®</sup> *by the numbers*



More than  
**40%** of U.S.  
commercial  
building space

# ENERGY STAR Portfolio Manager<sup>®</sup>

*making sense of the data*

## Shorenstein Environmental Performance Report

*Portfolio Performance, Q4 2015*

### Portfolio Summary

Environmental Performance Metrics <sup>1,2</sup>	Dec 2014	Mar 2015	Jun 2015	Sep 2015	Dec 2015	Annual Variance % <sup>5</sup>
ENERGY STAR Score <sup>3</sup>	86	87	87	87	88	2.3%
Total Energy Cost ( <i>thousands</i> )	\$37,225	\$37,009	\$36,902	\$36,731	\$36,089	3.1%
Water Use Intensity (Gal/SF)	14.2	14.2	14.1	14.3	14.5	-2.0%
Total Water Cost ( <i>thousands</i> )	\$2,253	\$2,291	\$2,340	\$2,408	\$2,497	-10.8%
Waste Diversion Rate	48%	48%	48%	51%	52%	8.3%
GHG Emissions Intensity (KgCO <sub>2</sub> e/SF)	7.2	7.1	7.0	7.0	6.9	4.9%
Portfolio Square Feet	18,388,343					

# Environmental Performance Strategy

SHORENSTEIN

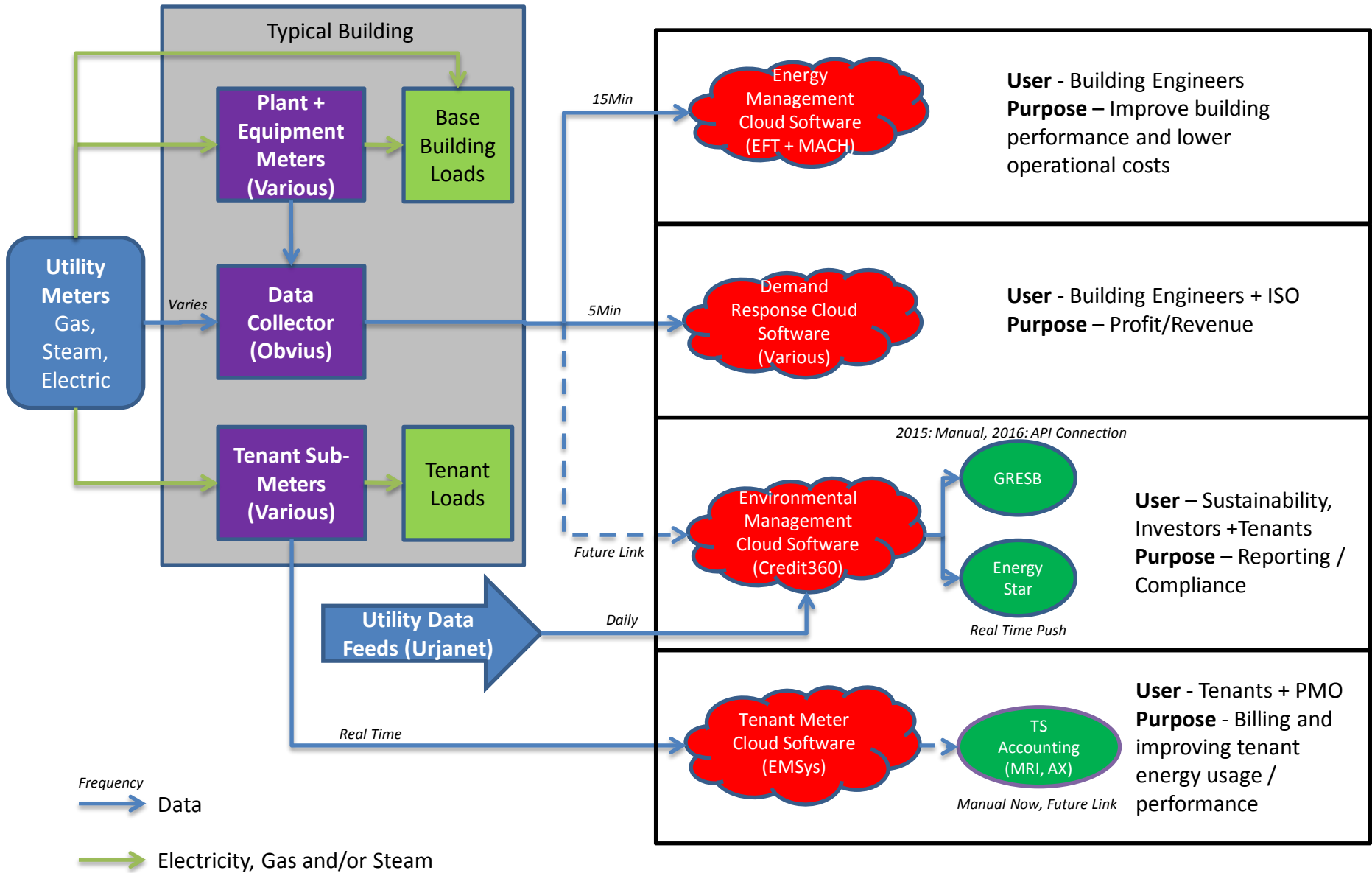




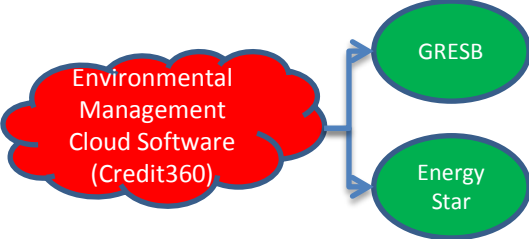
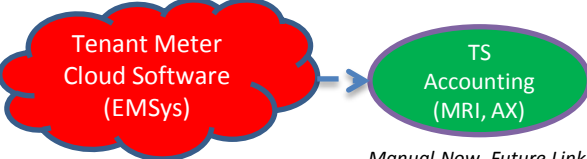
- **Investment in Efficiency**
- **Smart Operation**
- **Tenant Engagement**



JP Flaherty,  
Tishman Speyer

# Energy and Environmental Management Systems Operations



 <p>Energy Management Cloud Software (EFT + MACH)</p>	<p><b>User</b> - Building Engineers  <b>Purpose</b> – Improve building performance and lower operational costs</p>	<p><i>Current Deployment</i>                  All US operating properties</p>
 <p>Demand Response Cloud Software (Various)</p>	<p><b>User</b> - Building Engineers + ISO  <b>Purpose</b> – Profit/Revenue</p>	<p><i>Current Deployment</i>                  NYC and Chicago operating properties  <i>Future</i>                  All US operating properties</p>
<p>2015: Manual, 2016: API Connection</p>  <p>Environmental Management Cloud Software (Credit360)</p> <p>Real Time Push</p>	<p><b>User</b> – Sustainability, Investors + Tenants  <b>Purpose</b> – Reporting / Compliance</p>	<p><i>Current Deployment</i>                  All global operating properties</p>
 <p>Tenant Meter Cloud Software (EMSys)</p> <p>Manual Now, Future Link</p>	<p><b>User</b> - Tenants + PMO  <b>Purpose</b> - Billing and improving tenant energy usage / performance</p>	<p><i>Current Deployment</i>                  Some NYC and CA properties  <i>Future</i>                  All NYC and some other US properties</p>

# Moderated Discussion

# Key Takeaways

- No need to start from scratch! Many resources exist for energy management programs.
- Being supportive and proactive when ordinances roll out will help your business.
- Benchmarking offers valuable information about building portfolio.
- Water tracking is the next frontier.



# Thank you!

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