

Renew Boston Strategy Board

Meeting 9



June 6, 2014



Chorus Foundation

Agenda

2013 Update on progress to 2020 goals

- City's 2020 GHG goals
- Challenge for Sustainability & Other Partnerships
- BERDO

Large buildings initiatives & enhancements to City's C&I strategy

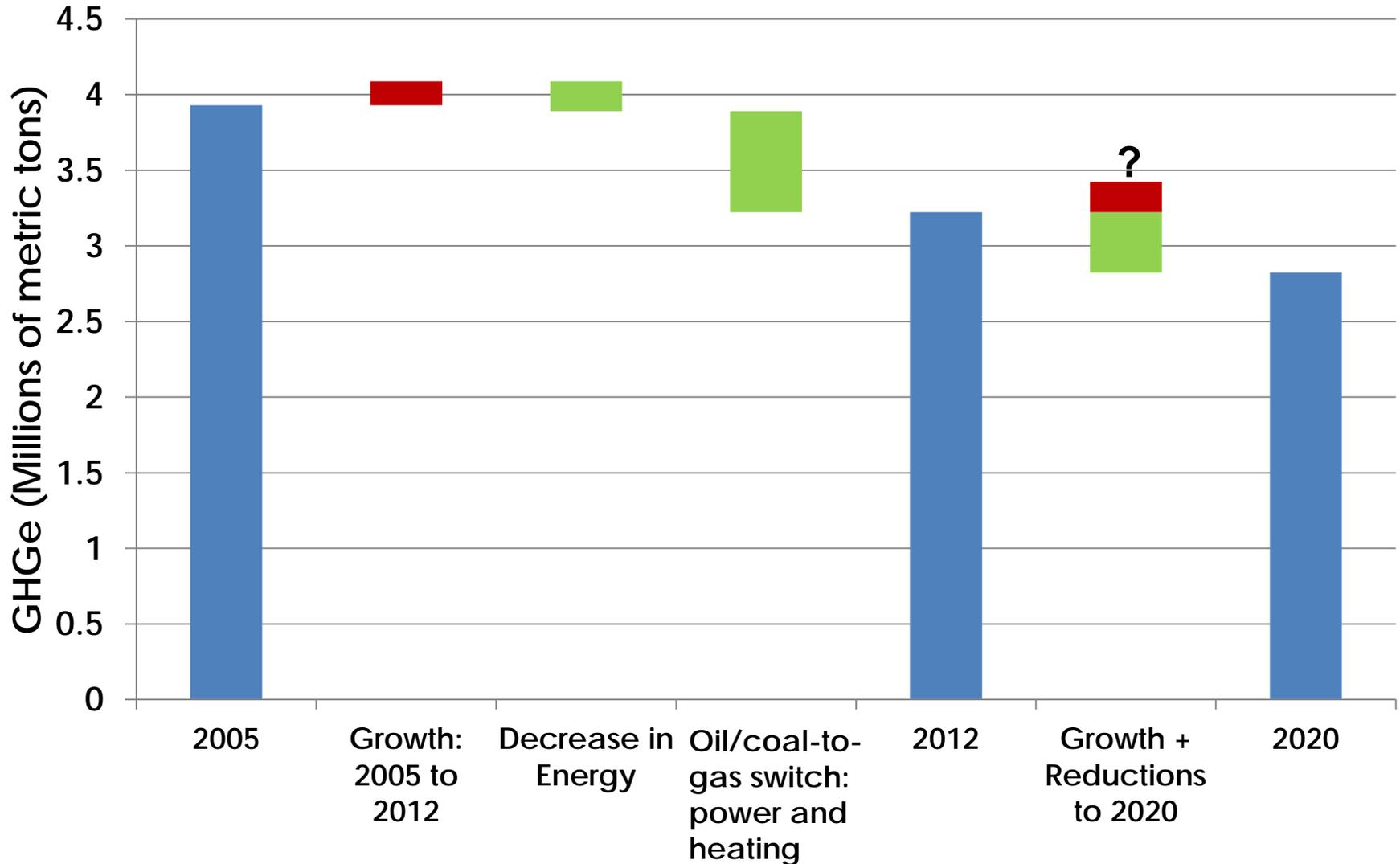
- BERDO
- Challenge for Sustainability & Other Partnerships
- Mayor's Carbon Cup

Discussion throughout:

- How we can continue to work together to:
 - increase participation?
 - achieve deeper savings?
- What other initiatives are needed to further enhance C&I Strategy in Boston?

Next Steps

GHG Reduction Goals & Progress: Commercial/Industrial

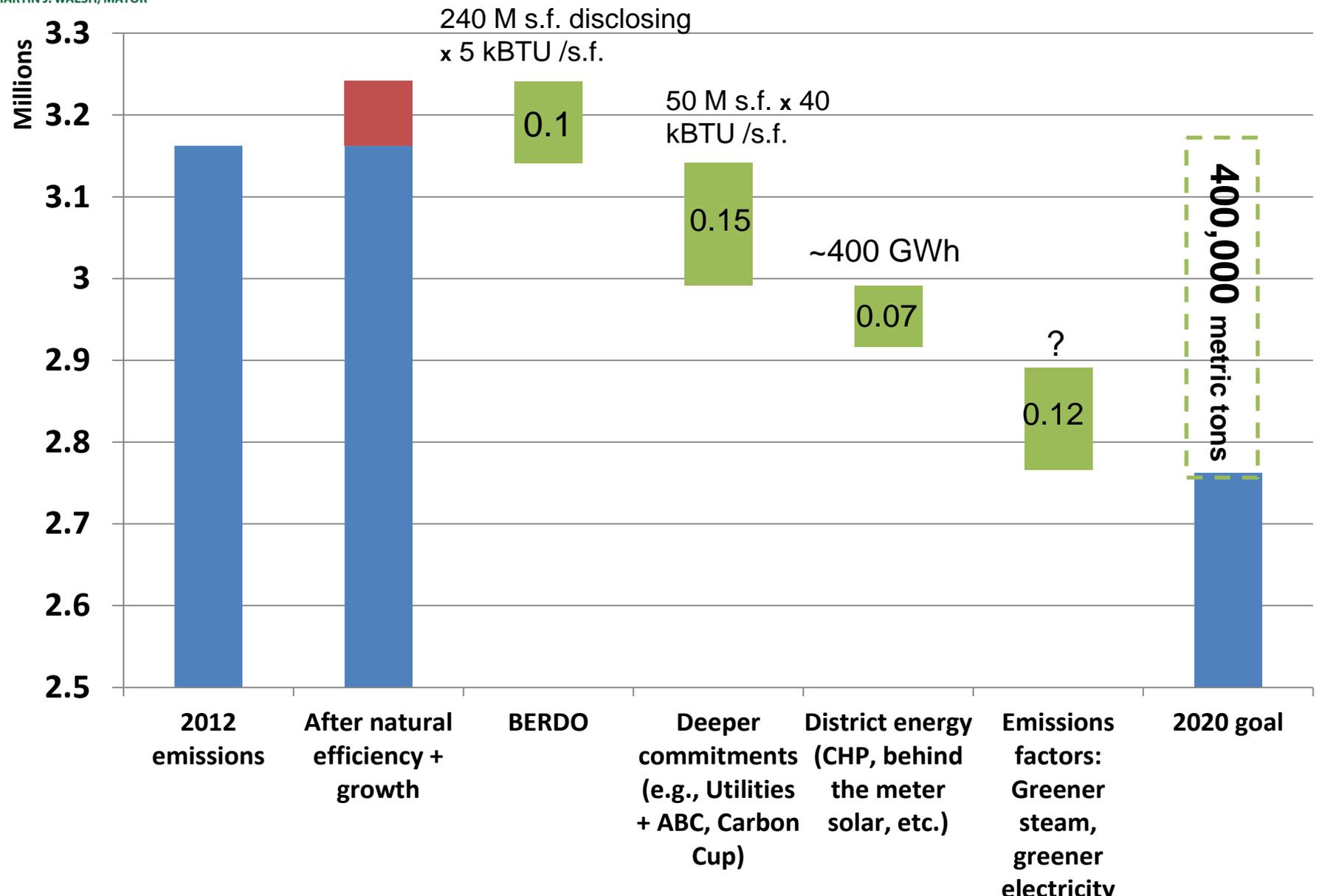




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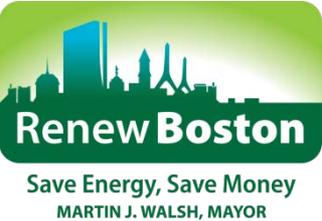
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Getting to C/I Goals: By Program



Getting to C/I Goals: By Fuel

	Baseline	Scenario 1: Strong shift from fuel oil	Scenario 2: Moderate shift from fuel oil	Scenario 3: Weaker shift from fuel oil
Fuel oil (M gal)	16.7 Mgal	-12 Mgal (72%)	-6 Mgal (35%)	-2 Mgal (-12%)
Electricity (GWh)	5,366 GWh	-400 GWh (7%)	-400 GWh (7%)	-325 GWh (-6%)
Nat. gas (Therms)	180 Therms	+0 therms (0%)	-11 therms (6%)	-25 therms (-14%)
Steam (klbs)	1,898 Klbs	-100 klbs (5%)	-100 klbs (5%)	-120 klbs (-6%)



City Large Building Initiatives: Who – What – How

Who:

- **Deeper commitments:** Top 50 + GRC + Challenge + ABC Members
 - Ex: MGH, since 2003, has reduced emissions by 33,000 metric tons. 10 more MGHs ~ = C/I target.
- **Broader commitments:** Largest energy using sectors.
- **Who else?**

What:

- BERDO
 - Challenge for Sustainability
 - Mayor's Carbon Cup
 - **What else?**
- } Utility EE programs

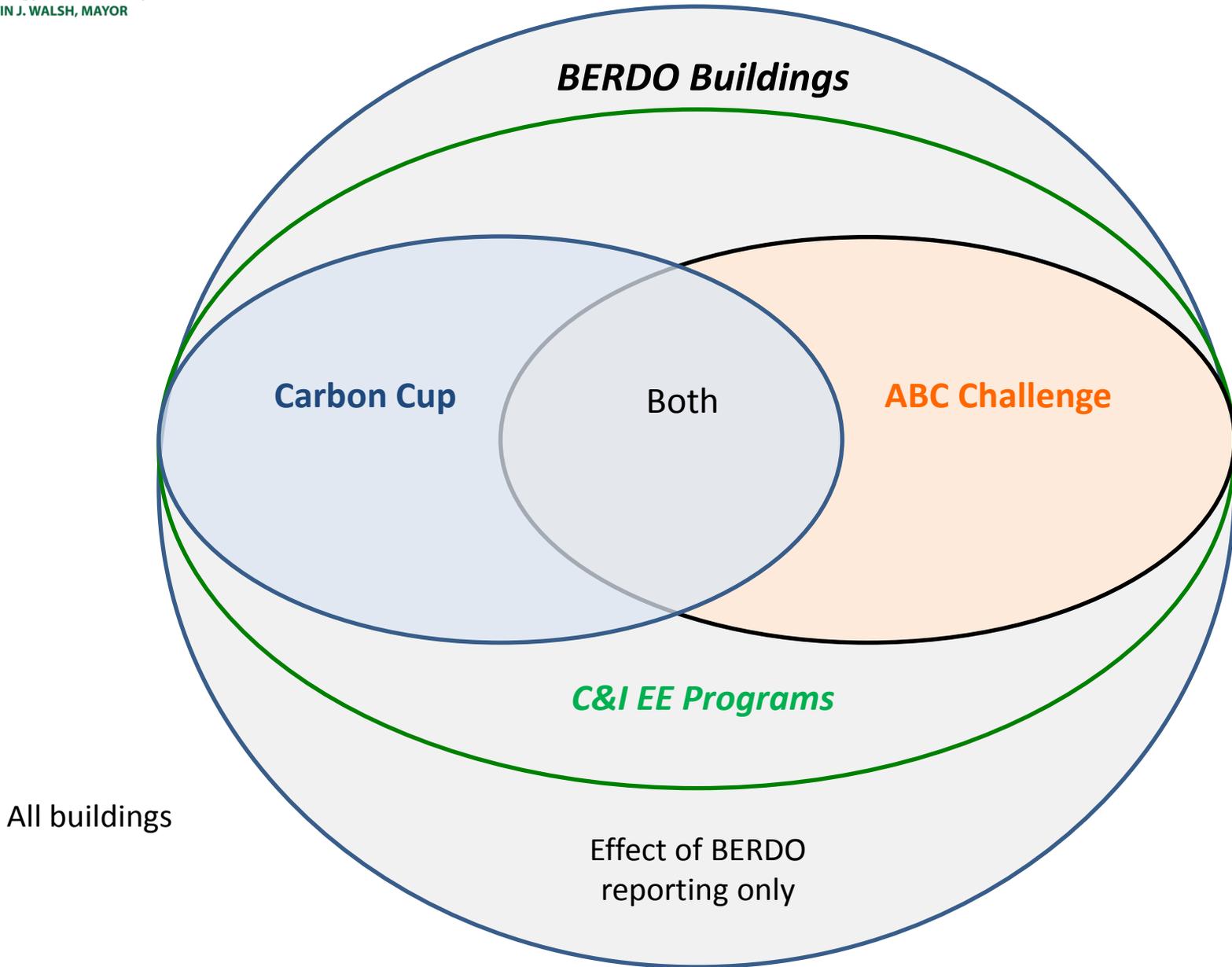
How:

- Through BERDO, City has mechanism for proactive outreach to buildings
- Through scan of City touchpoints with owners, City can identify all points in which City interacts with property owners.
- **How else?**



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C/I Program



BERDO Buildings

Carbon Cup

Both

ABC Challenge

C&I EE Programs

All buildings

Effect of BERDO
reporting only

Services/Values:

- Provide **first touch for leads** into utility EE programs and deeper programs/communities (e.g. A Better City)
 - NYC shows a median difference between year one and year two of **-6 kBTU/s.f.** for reporters
 - Use of EPA portfolio manager decreases EUI by ~5-7%
- City data to target/track performance

Potential directions:

- City may offer public recognition or other benefits for reporting additional data (e.g., normalization, intensity metrics)
- Highlight reduction in City usage by Municipal Unit

Challenge for Sustainability/Sectoral Partners

Services/Values:

- Offers an **initial opportunity** for deeper engagement on energy efficiency
- Creates EE community, coalitions, and proof for respective sectors
- Allows for complementary targeting (e.g. Class B, quartiles 2/3)

Renew Boston partners work with C&I energy users:

- ABC (non-exclusive MOU) (& other GRC Working Groups- Health, Ed)
- PAs (James Cater, Account Execs, segmentation support, vendors)
- Outreach, referral & followup (all City contacts with eligible constituents)
- Simple city tracking of participation via Excel spreadsheet

Mayor's Carbon Cup

Services/Values:

- Offers recognition of leadership among largest property managers and **opportunity for deepest commitment** to EE (Top 50/Quartile 1)
- Explicit methodology to track performance using GHG intensity (per s.f., per licensed bed, per FTE)

Related activities:

- Transition from Pacesetters
- Alignment with GRC and its Working Groups
- Could be expanded to somewhat smaller customers through invitation to sign an MOU with City including more modest goals

Mayor's Carbon Cup, continued

35% from 2005 to 2020

Commercial real estate: choose
either a per s.f. or per employee
basis

Emphasis on retrofits

Enter tiers of portfolios:

- > 1 M s.f.
- > 2 M s.f.
- > 5 M s.f.



Pacesetters preceded Carbon Cup

Renew Boston's 20 Pacesetters:

University

Boston Architectural College
Cambridge College
MIT
Northeastern University
UMass Boston
Harvard University

Assembly & Entertainment

Bethel African Methodist Episcopal
Church
New England Aquarium
Museum of Fine Arts
TD Garden

Health Care

Boston Medical Center
Steward Health Care, Carney Hospital
Dana Farber

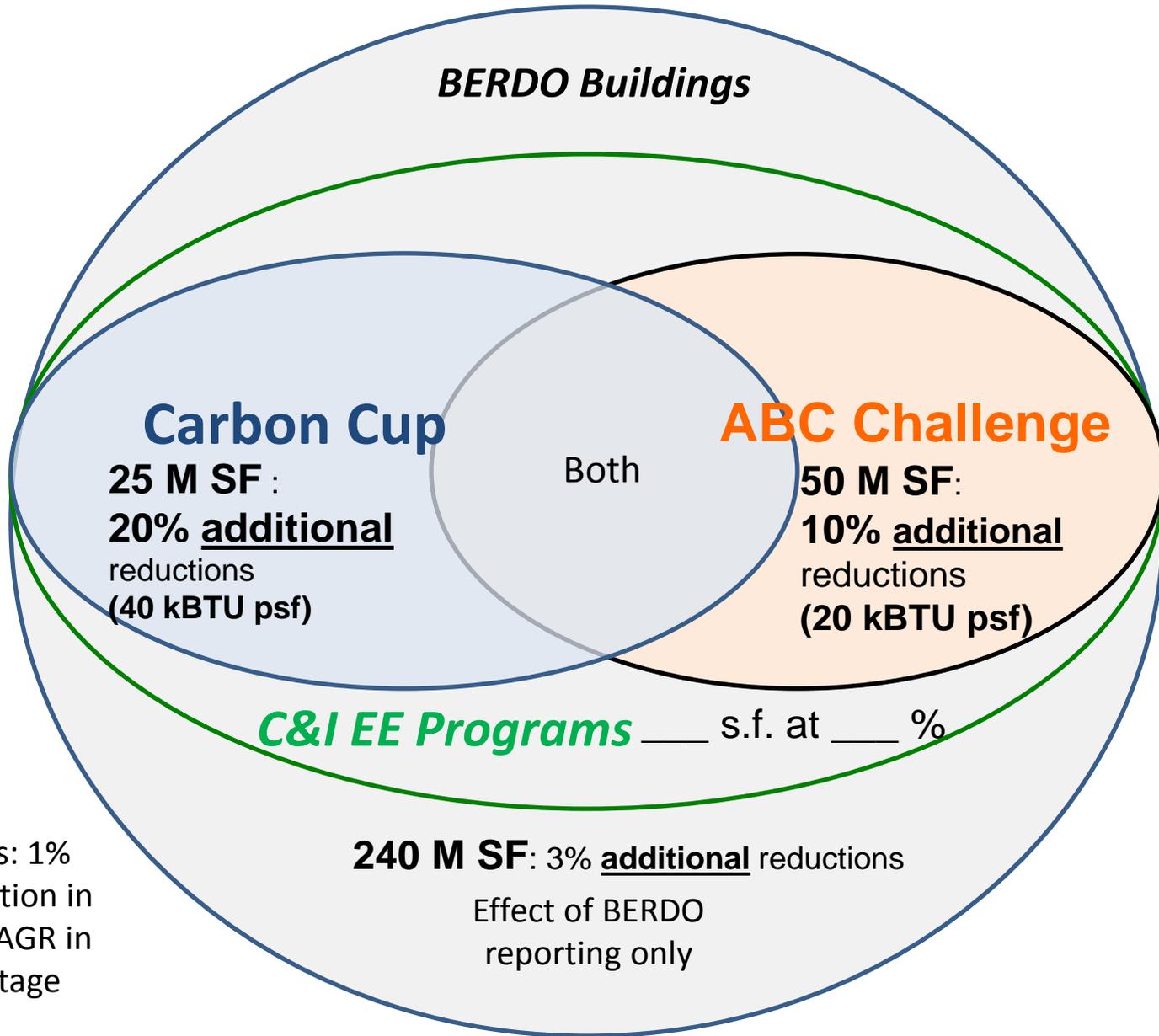
Other

City of Boston
Barr Foundation
The Boston Globe
Federal Reserve Bank
Markley Group
MWRA
Gillette / P&G

Commercial Real Estate

Boston Properties

Followup: ongoing transition to Carbon Cup/other participation



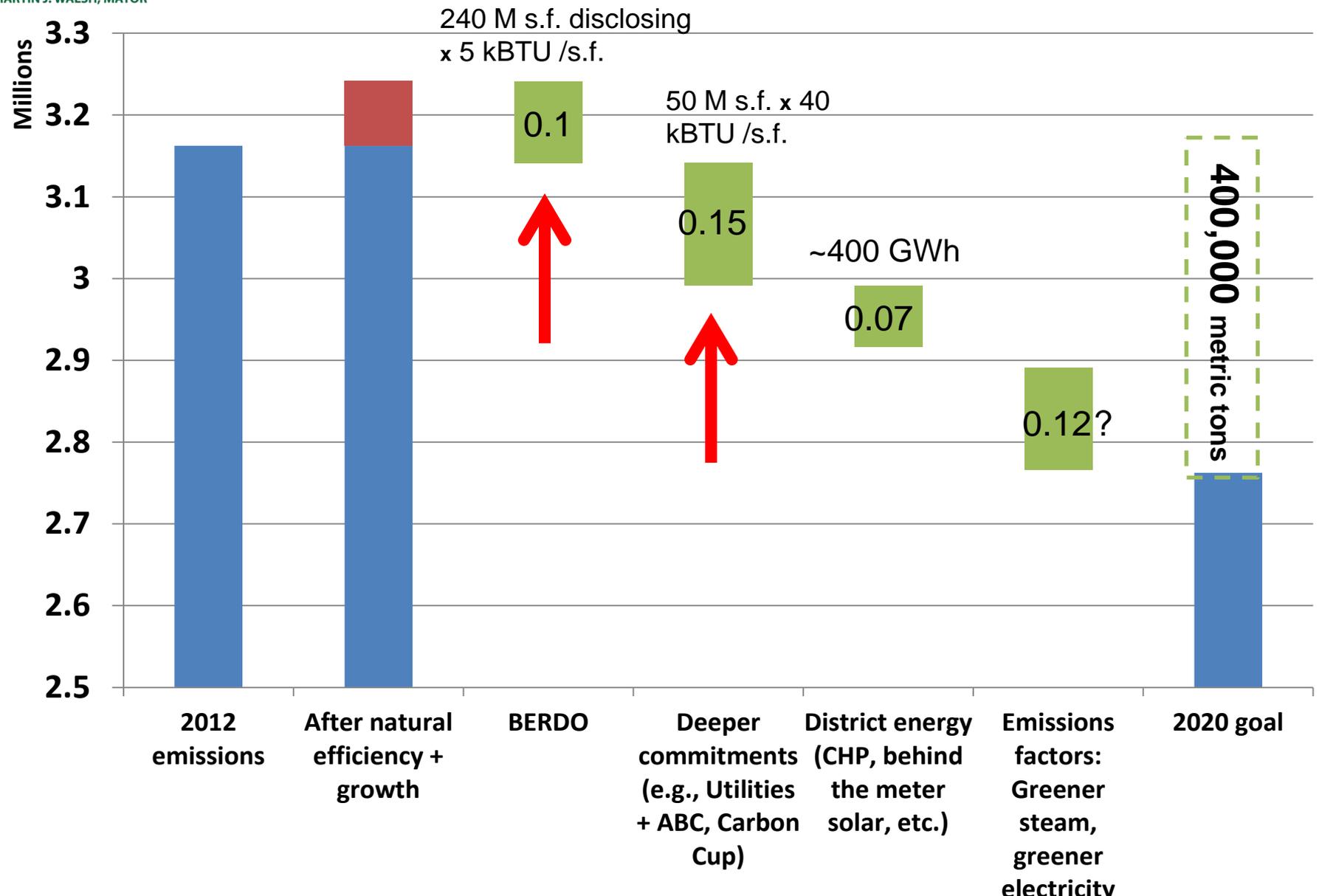
All buildings: 1% annual reduction in EUI + 1.1% CAGR in square footage



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Getting to C/I Goals: By Program



Recent Results: Electricity Usage by Sector

- Significant reductions in GRC sectors, and some others (3% to 7%).
- But, 40% of customer load (“other” row) growing almost 3%. Net = 1.6% reduction
- **Next step:** Matching **what** to **who**: -40 kBTU across 50 M s.f.? -20 kBTU across 100 M s.f.?

Boston C&I Electricity Usage by Segment	2012	2013				Change 2012-13	
	Usage (MWh)	Accounts	Usage (MWh)	Share of Use	Average Usage	Reduction (MWh)	%
GRC-Related Segments:							
Commercial Property Management	744,196	2,270	722,321	14%	318	21,875	-2.9%
Colleges & Universities	681,040	864	661,758	13%	766	19,281	-2.8%
Hospital	468,100	385	434,600	8%	1,129	33,500	-7.2%
Financial	318,100	1,720	310,600	6%	181	7,500	-2.4%
Lodging	211,200	179	200,100	4%	1,118	11,100	-5.3%
Subtotal, GRC-related	2,422,636	5,418	2,329,380	45%	430	93,256	-3.8%
Technology & Industrial	324,100	1,820	299,100	6%	164	25,000	-7.7%
Retail	509,500	4,418	485,400	9%	110	24,100	-4.7%
Other	1,954,727	38,770	2,012,276	39%	52	(57,548)	2.9%
Total (Community Report)	5,210,963	50,426	5,126,155	100%	102	84,808	-1.6%

Recent Results: Other Electricity Usage by Sector

- Of these “other” segments/subsegments, the three with the greatest MWh growth in 2013 were the ones with the smallest average usage: Residential Property Management, Professional Services and “Other/NA.”

Boston C&I Electricity Usage by Segment	2012	2013				Change 2012-13	
	Usage (MWh)	Accounts	Usage (MWh)	Share of Use	Average Usage	Reduction (MWh)	%
Other:							
Government Agency	468,000	6,199	458,300	9%	74	9,700	-2.1%
Communication & Entertainment	213,300	1,334	203,500	4%	153	9,800	-4.6%
Medical Office	82,700	520	80,100	2%	154	2,600	-3.1%
Long Term Care Facilities	20,700	98	19,700	0%	201	1,000	-4.8%
Other Institution	107,900	675	107,300	2%	159	600	-0.6%
Residential Property Management	209,742	5,648	214,397	4%	38	(4,655)	2.2%
Public Assembly	119,200	105	120,700	2%	1,150	(1,500)	1.3%
Public Schools	43,868	182	47,050	1%	259	(3,182)	7.3%
Professional Service	335,900	17,906	342,300	7%	19	(6,400)	1.9%
Other/NA	220,156	9,449	231,042	5%	24	(10,886)	4.9%
Subtotal	1,821,466	42,116	1,824,390	36%	43	(2,924)	0.2%
Delta from Community Sales Report	133,261	(3,346)	187,886	4%		(54,625)	41.0%
Subtotal, Other	1,954,727	38,770	2,012,276	39%	52	(57,548)	2.9%

Note: the apparent 2.9% growth in this overall other category may be an anomaly, attributable to C&I electricity growth in the “Community Sales Reports” (which exceeded the sector totals).

National Grid data

National Grid has provided annual data for the emissions inventory for years, and this data are currently under review.

- Are there additional steps that we need to take to finalize and understand the new data?
- Does National Grid have a protocol that could be used to weather-normalize the annual gas consumption data?
- Should we have a joint discussion of trends by segment in electricity and natural gas?

Discussion

- City aims: broaden participation + deepen savings across existing portfolios – who else should be targeted?
 - “Other” categories?
 - Remaining high energy users?
- What other programs are we missing? Tenant incorporation?
- How can the City use BERDO, ABC, and Carbon Cup to best generate leads for utilities?

Next steps and follow-up...