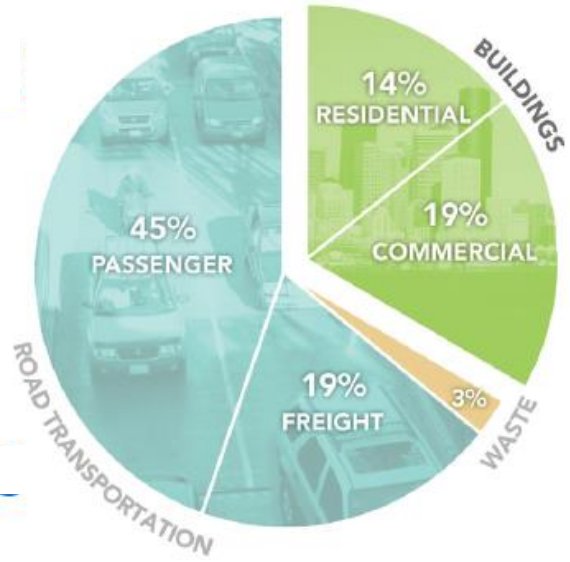
Building Energy – Next Generation Policy

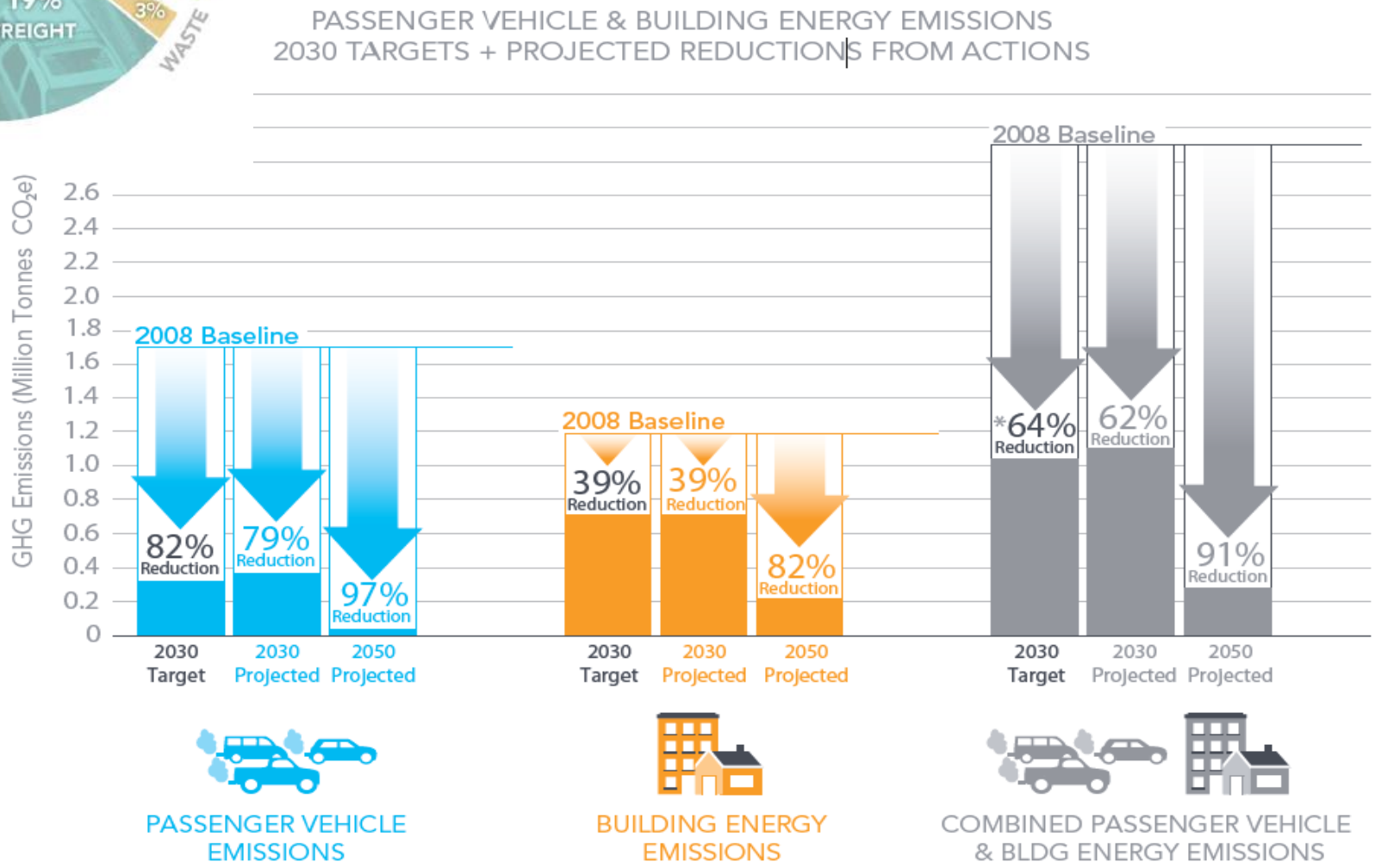
Planning, Land Use and Sustainability Committee

September 29, 2015

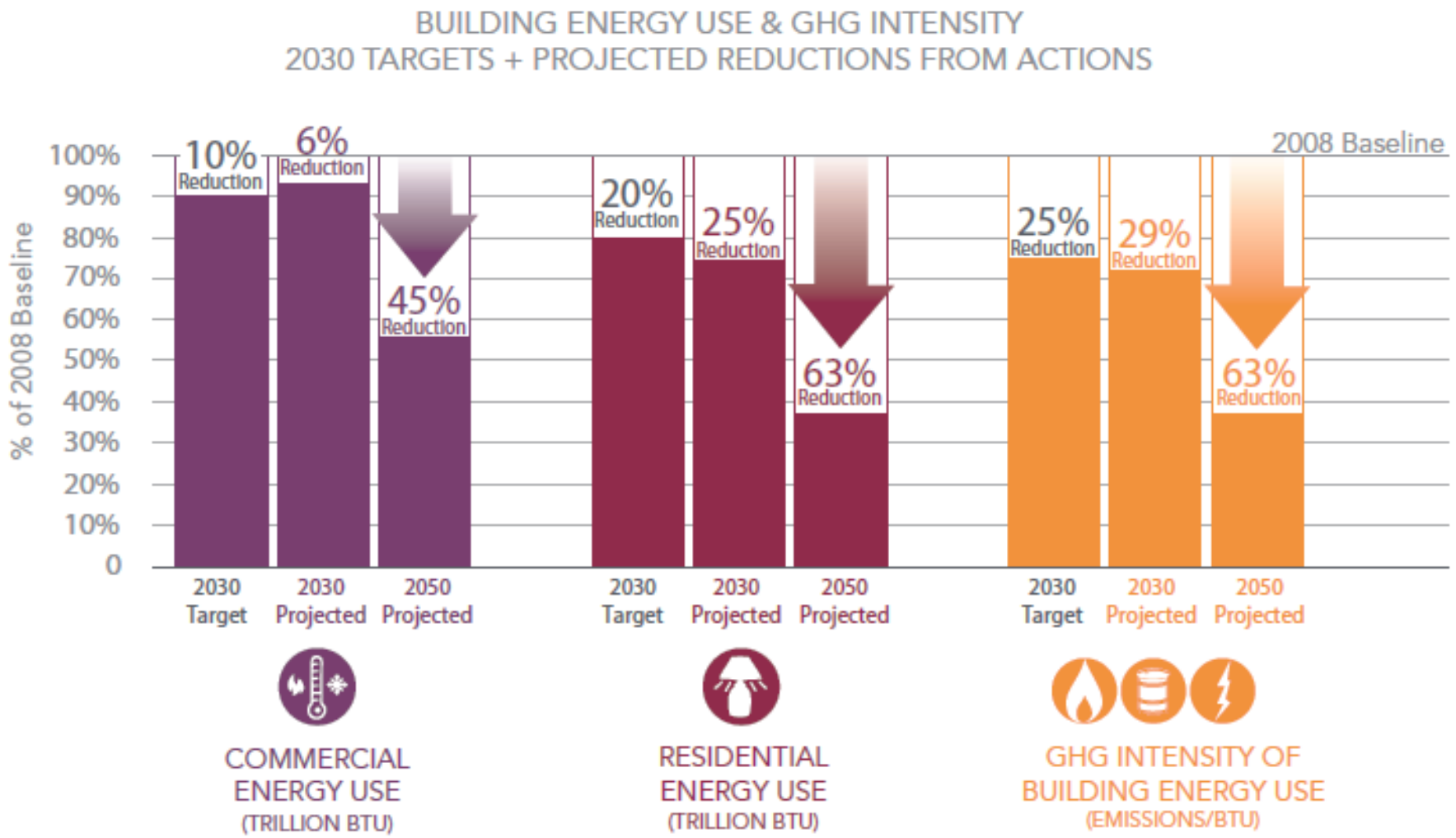
Seattle Office of Sustainability & Environment
Seattle City Light

CAP Emission Reduction Goals





CAP Building Goals



Progress to Date

Energy & GHG Reductions

Building Energy Use (2008-2050)

Target Reduction: 1.25% / year

Actual 2008-2012: 0.75% / year

GHG Intensity of Fuels (2008-2050)

Target Reduction: 1.5% / year

Actual 2008-2012: 1.75% / year

Overall Building Emissions (2008-2050)

Target Reduction: 2% / year

Actual 2008-2012: 2.50% / year

Source: 2012 Seattle Community GHG Inventory

Progress to Date

Energy Reductions

Commercial Building Energy Use (2008-2050)

Target Reduction: 1.10% / year

Actual 2008-2012: 0.25% / year

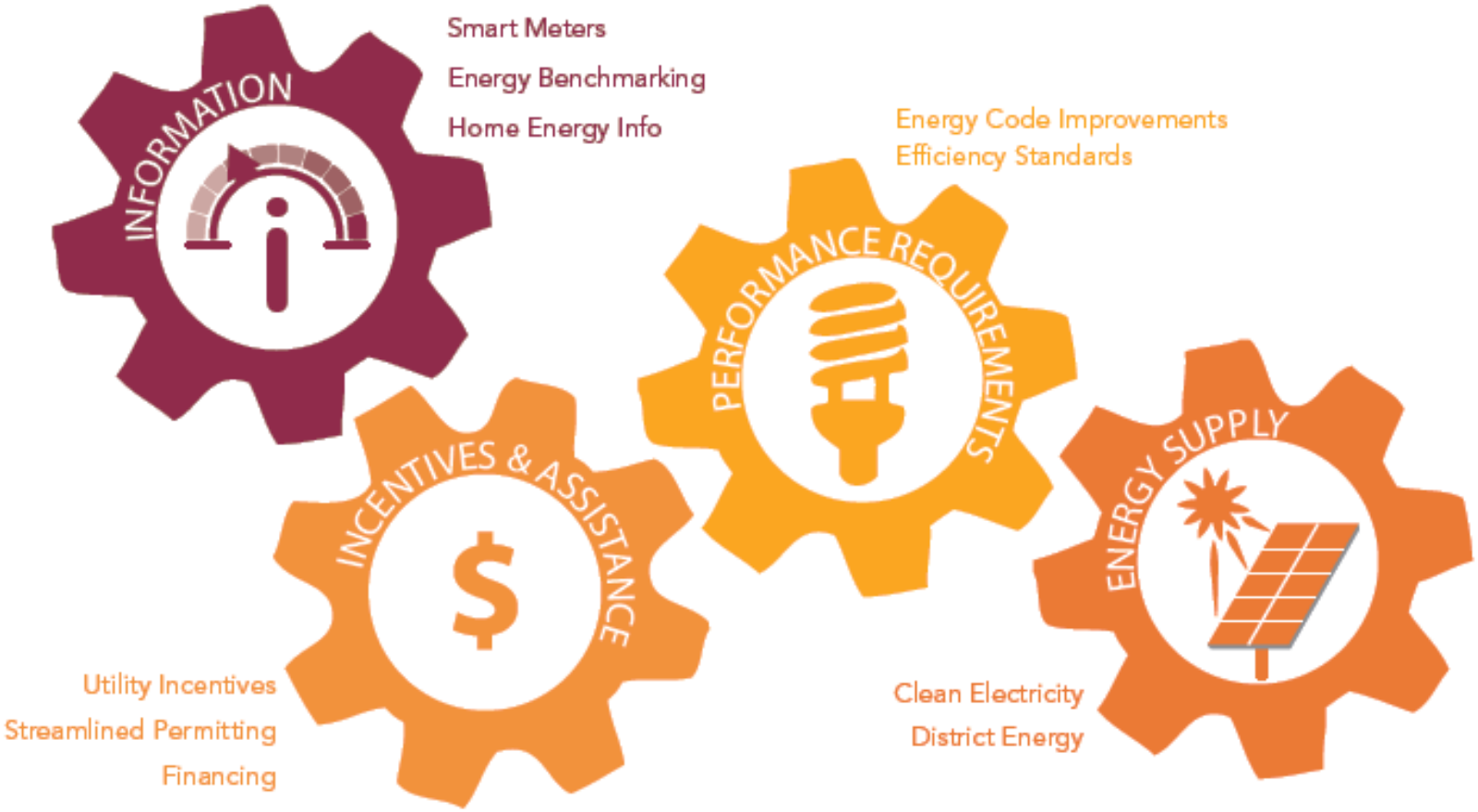
Residential Building Energy Use (2008-2050)

Target Reduction: 1.5% / year

Actual 2008-2012: 1.25% / year

Source: 2012 Seattle Community GHG Inventory

CAP Strategy for Buildings



Work to Date: CAP 2015 Actions

Commercial & Multifamily Buildings

LEADERSHIP (City Facilities)	✓ Develop Resource Conservation Management Plan ✓ Publish City energy benchmarking scores
INCENTIVES	➢ Pilot retro-commissioning incentives ➢ Pilot pay for performance incentives ➢ Update Living Building pilot
REGULATIONS	✓ Minimum energy requirements for substantial alterations ✓ Increase efficiency standards in each code cycle ✓ Outcome-based code option

PROCESS

- Research Policy Options
  - CAP 2015 & 2030 actions, plus additional alternatives from other jurisdictions
  - Interviews with key cities

- Stakeholder Engagement
  - Discussions with 25+ organizations & individuals
    - Building owners, developers & facility managers
    - Energy efficiency & environmental organizations
    - Service providers and professional organizations
  - Open house September 14, 80 attendees

Next Steps – Policy Approach

PERFORMANCE METRICS / MARKET TRANSFORMATION

- Benchmarking & Disclosure
- Developing & Tracking Targets

EFFICIENT OPERATIONS

- Existing SCL Energy Assessment Incentive
- SCL Retro-Commissioning Pilot Incentive
- Periodic Tune-Ups

ENERGY EFFICIENCY UPGRADES

- Existing SCL Energy Efficiency Measures Rebates
- SCL Pay for Performance Pilot Incentive
- Continued Energy Code Updates

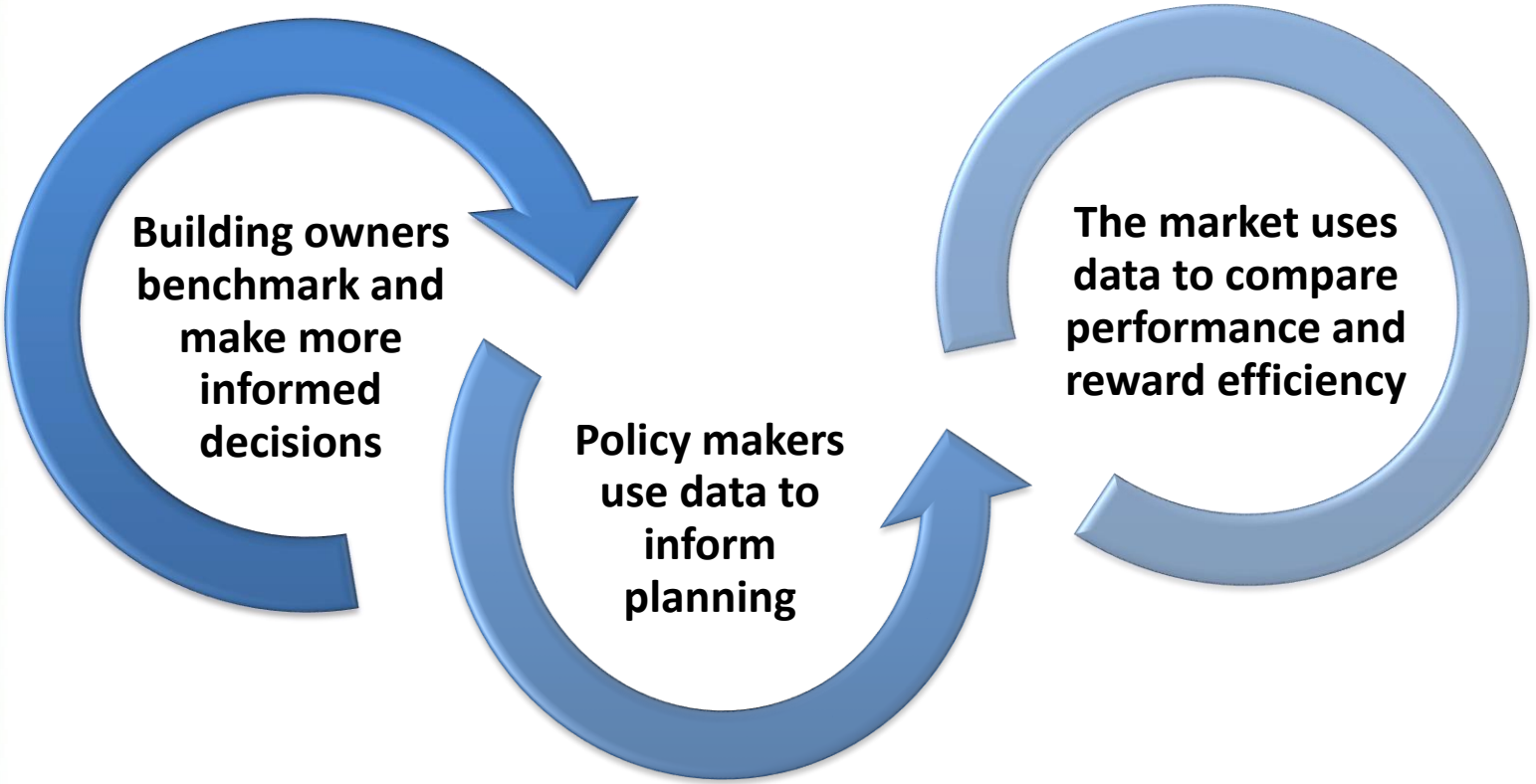
Additional Programs, Incentives & Regulations

Next Steps – Policy Approach

- 2015 Legislation
  - Energy Benchmarking Transparency
  - Periodic Tune-Ups for Larger Commercial Buildings
- City Leadership
  - Tune-Ups of City-owned buildings
  - Asset preservation policy
- Additional Supporting Actions
  - Periodic Energy & GHG Goals by Building Type
  - Benchmarking Performance Scorecards
  - SCL Incentives
  - DPD Energy Code
  - Continued Investigation & Policy Development

BENCHMARKING TRANSPARENCY

Why Transparency?



BENCHMARKING TRANSPARENCY

Why Transparency?

City	Program Components	Energy Savings for Benchmarked Buildings
New York City[1] 2010 - 2013	Benchmarking & Transparency Audits (2013) Lighting Upgrades (2025)	**5.7%** (over 3 years) 9.9% carbon savings
Washington, D.C.[2] 2010 - 2012	Benchmarking & Transparency	**6%** (over 2 years)
Seattle[3] 2011 - 2013	Benchmarking	**0.6%** (over 2 years)

1. US Department of Energy. *New York City Benchmarking and Transparency Policy Impact Evaluation Report*, May 2015. (p. ii)
2. District Department of the Environment. *Green Building Report for the District of Columbia,* 2012. (pp. 31-32). Note that reporting and disclosure for all 3 years occurred together in 2013.
3. Seattle Office of Sustainability & Environment. *Building Energy Analysis Report 2013*. (Executive Summary)

BENCHMARKING TRANSPARENCY

Key Elements of Legislation

- Benchmarking energy and GHG information available on web
- Transparency would start with 2015 data, reported in 2016
- No change to owner submittal requirements



BUILDING TUNE-UPS

Why Tune-Ups?

- Ensure energy and water are not needlessly wasted by optimizing building performance
- Promote active management of building systems
- Tune-ups yield 5-20% energy savings and pay back in 2-3 years, on average

BUILDING TUNE-UPS

Key Elements of Legislation

- Non-residential buildings ≥ 50,000 sq. ft.
- Tune up every 5 years
- Focused on operational improvements
- Phased in by building size, beginning 2018
- Exemptions for evidence of good performance

TIMELINE

Legislation Transmitted	October 2015
Anticipated Council Action	December 2015
Director's Rules	Spring 2016

- Continued stakeholder engagement
- RSJI Toolkit (tune-ups)

Publication of 2015 Building Energy Data	Fall 2016
Reporting for First Round of Tune-ups	2018