

Palo Alto's New and Improved Green Building Ordinance - How, What and Where!

BayREN November Forum

Local Government Resources for Energy Efficiency

November 18th, 2014

Overview

- City of Palo Alto's green building timeline
- New program structure
- Challenges and opportunities
- Future vision and next steps
- Questions

Green Building Program Timeline

City of Palo Alto

2007

Green Building Ordinance in Palo Alto with **2008 Energy Reach Code of 15%**

2009

Green Building Ordinance adopted in **2010** Calgreen Tier 1, 2 & Green Point Rated, kept **2008 Energy Reach Code of 15%**

2013

Green Building Ordinance adopted in 2013 includes **Calgreen Tier 1, 2 & Green Point Rated EVSE-Ready Ordinance** for **New Single-Family Residential**

2014

EVSE-Ready Ordinance for Multi-Family & Nonresidential

Preparing for future updates to the **Green Building Ordinance & New Energy Reach Code**

New Program Structure

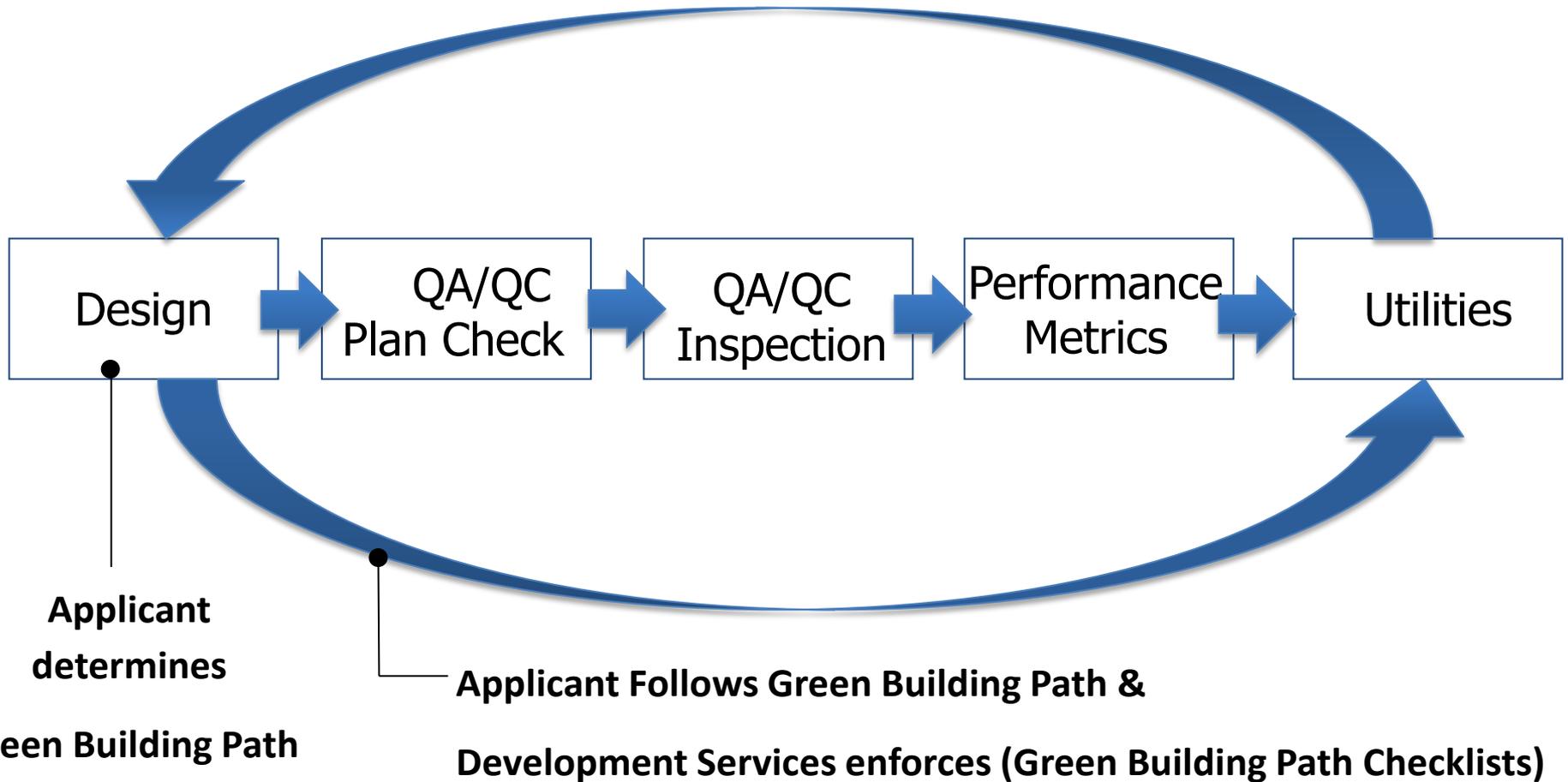
1. Green Building Advisory Group
 - Provides guidance to staff on green building policy
2. Green Building Technical Committee
 - Staff members tasked with drafting policy
3. Green Building Coordinator
 - Internal coordinator with Green Building Liaisons
 - Green Building coordination within the Planning, Building, Inspections, and Utilities departments
 - Develops and administer internal quality control procedures

Green Building Program Steps

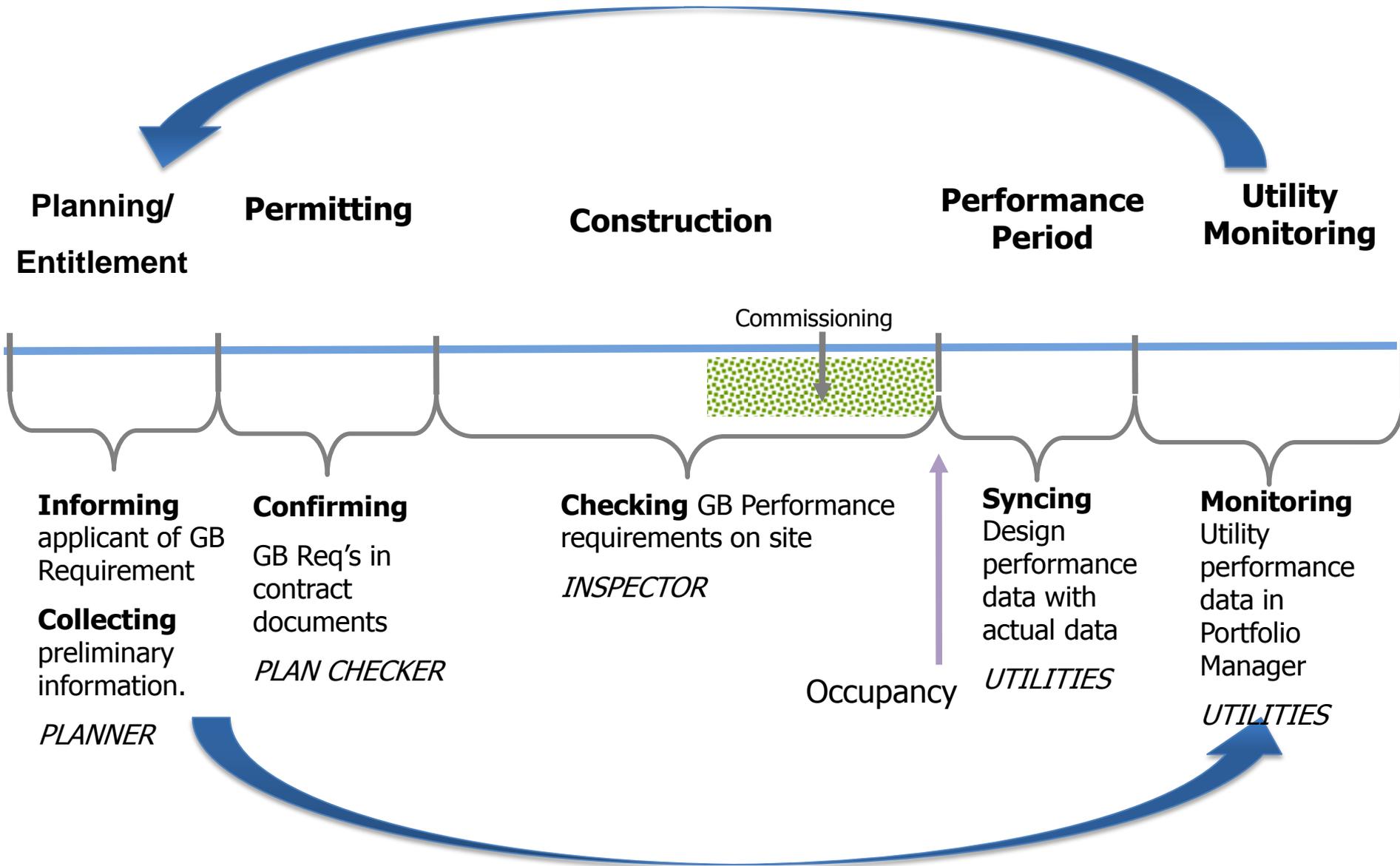
1. Audit of existing green building program
 - Presented opportunities for improvement and reorganization
2. Green Building Advisory Retreat
 - Retreat held to define the direction of the program
2. Green Building Tasks Delegated
 - Staff members tasked with taking on green requirements related to their job
3. Green Building Quality Control
 - Internal green building coordinator defines procedures and trainings staff, and the public on implementation

Program Operational Goals

Fundamental Concept: Green Building Paths



General Green Building Permit Process



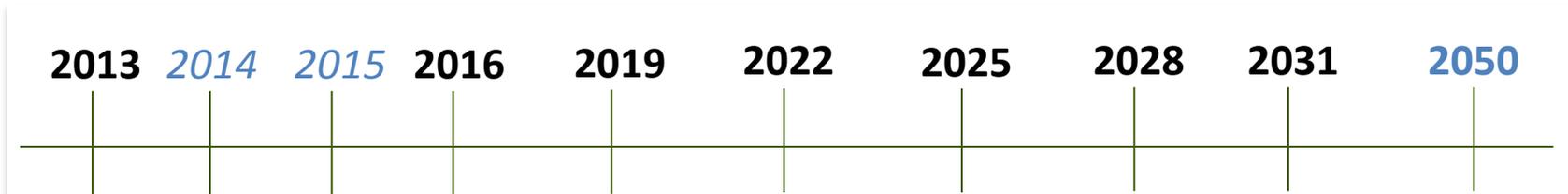
Green Building Advisory Retreat

- Focus
 - Create “leadership scale” on how aggressive we want to be on site, energy, water, materials, IAQ
 - Developed clear performance requirements for the upcoming revisions of green building ordinance

Leadership Scale

Maintain Current Leadership	Increased Leadership	Aggressive Leadership
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By when:



City of Palo Alto
**Green Building
 Policy Leadership**

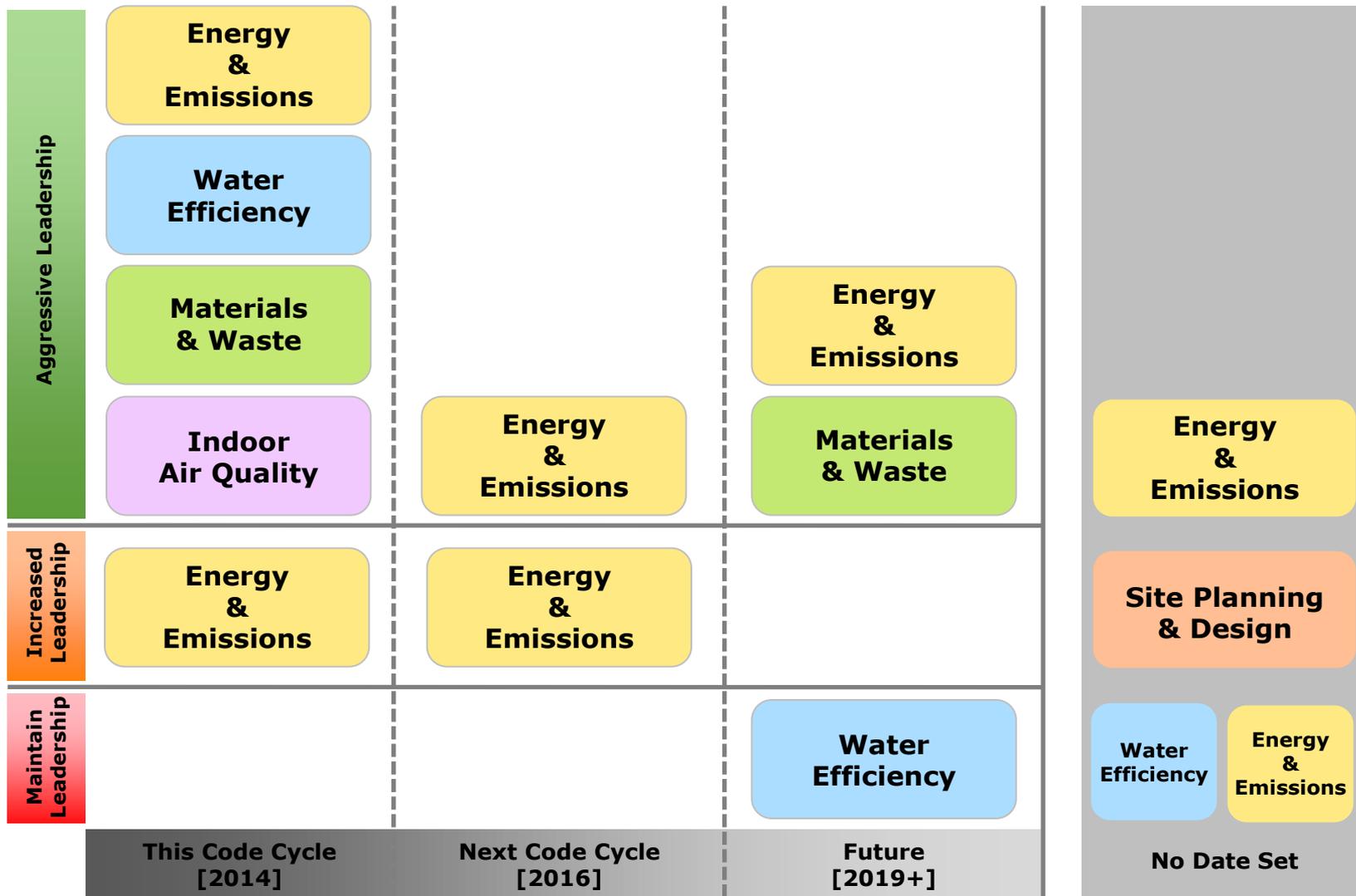
Policy Direction Detail by Topic

Level of leadership & Timing in Code Cycle
Green Building Advisory Group, July 2014

Aggressive Leadership	Energy & Emissions Require lower threshold for building commissioning	Energy & Emissions Require measurement & verification for commercial building energy use				
	Energy & Emissions Mandate commercial benchmarking (pending decision on standards.)	Energy & Emissions Mandate Solar Ready				
	Water Efficiency Mandate Model Water Ordinance for additional building types in residential & commercial	Water Efficiency Mandate onsite greywater use for residential & commercial new construction			Energy & Emissions Set Positive Net Energy target	
	Materials & Waste Promote deconstruction	Indoor Air Quality Allow/accept IAQ testing for CALGreen compliance	Energy & Emissions Set Zero Net Energy goal <i>sooner than 2020</i> for commercial	Energy & Emissions Set Zero Net Energy goal <i>sooner than 2020</i> for large residential (pending decision on ZNE definition)	Materials & Waste Require (near) zero construction waste	Materials & Waste Increase mandate for C&D requirements
Increased Leadership	Energy & Emissions Define Zero Net Energy & move toward setting requirements		Energy & Emissions Require measurement & verification for multi-family residential building energy use	Energy & Emissions Develop residential benchmarking program		
Maintain Leadership					Water Efficiency Mandate onsite blackwater use	
	This Code Cycle [2014]		Next Code Cycle [2016]		Future [2019+]	
	No Date Set					

City of Palo Alto
**Green Building
 Policy Leadership**

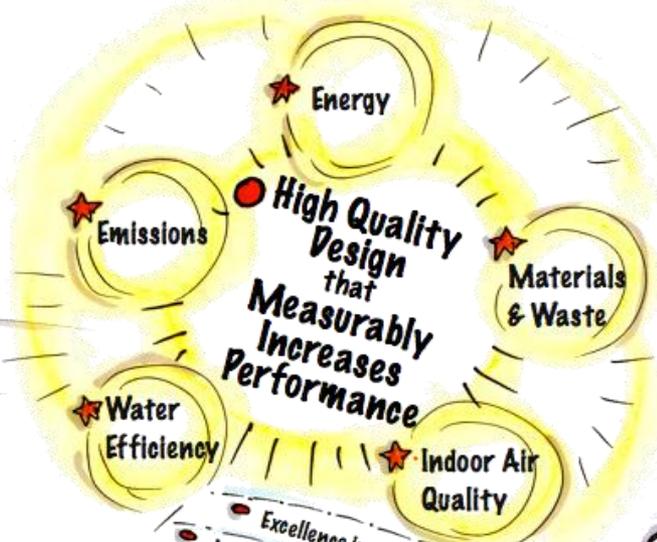
Summary: Policy Leadership by Topic
 Level of leadership & Timing in Code Cycle
Green Building Advisory Group, July 2014



Green Building Vision

● A Green, Sustainable Built Environment in Palo Alto

- meet today's needs
- not compromise the needs of future generations



GREEN BUILDING ORDINANCE

- POLICIES & PROGRAMS
- GOALS
- ✓ Promote energy, water & resource conservation
- ✓ Eliminate emissions & solid waste generation

- net-zero buildings
- use reclaimed, gray & harvested water
- reduce, recycle
- deconstruction instead of demolition
- durability & reliability
- recycle, compost
- material-conserving construction practices
- carbon-neutral buildings
- reduced reliance on carbon-fueled vehicles

- Excellence in design
- Innovation in construction
- Creative approaches to development

● CHALLENGES & LIMITATIONS

- Cost
- Flexibility
- Buildability
- Functionality

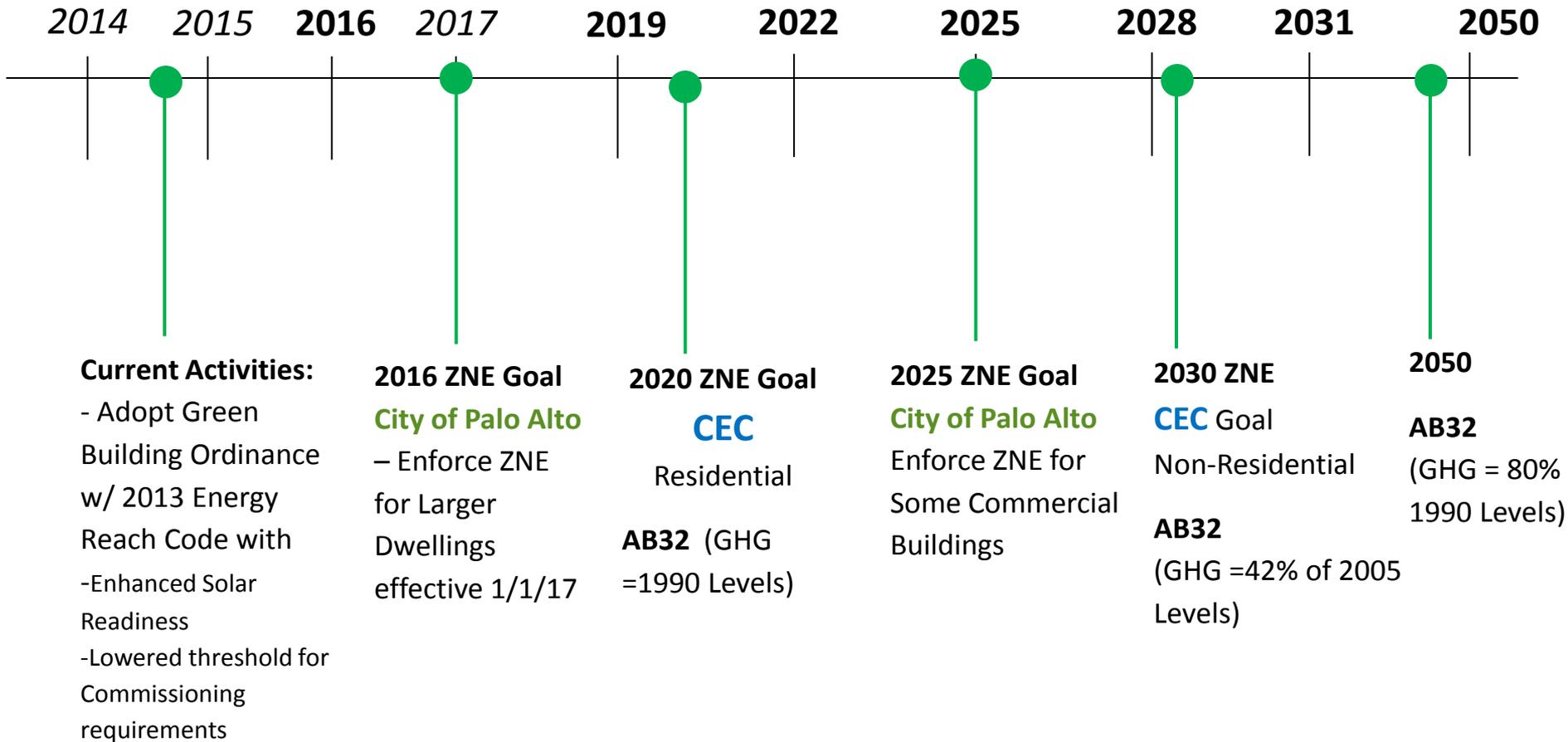
Challenges and Opportunities

- Cost-effectiveness Study Report consultant.
- Stringency of 2013 energy code – Reach Code needs to be feasible and cost effective.
- Gaining consensus on the future of the program
- Setting Priorities

Green Building Policy Goals Timeline

City of Palo Alto

Code Cycle Adoption Years



Questions?

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