

Palo Alto's New Reach Code Benefits, Motivations and Options

BayREN February Forum

Local Government Resources for Energy Efficiency

February 24th, 2015

Energy Reach Code Ordinance Improvements

1. New Energy “Reach Code”

- New Construction:
 - Increased stringency over state requirements by 15% for single-family, multi-family, and commercial
- Renovations:
 - Option 1: “Performance”: Increased stringency over state requirements by 5% for single-family, 10% for multi-family, and 5% for commercial.
 - Option 2: “Prescriptive”: Meet a list of cost-effective energy measures for roofs, walls, and lighting.
- Cost-effectiveness study performed to ensure requirements are financially responsible (CEC req’s)

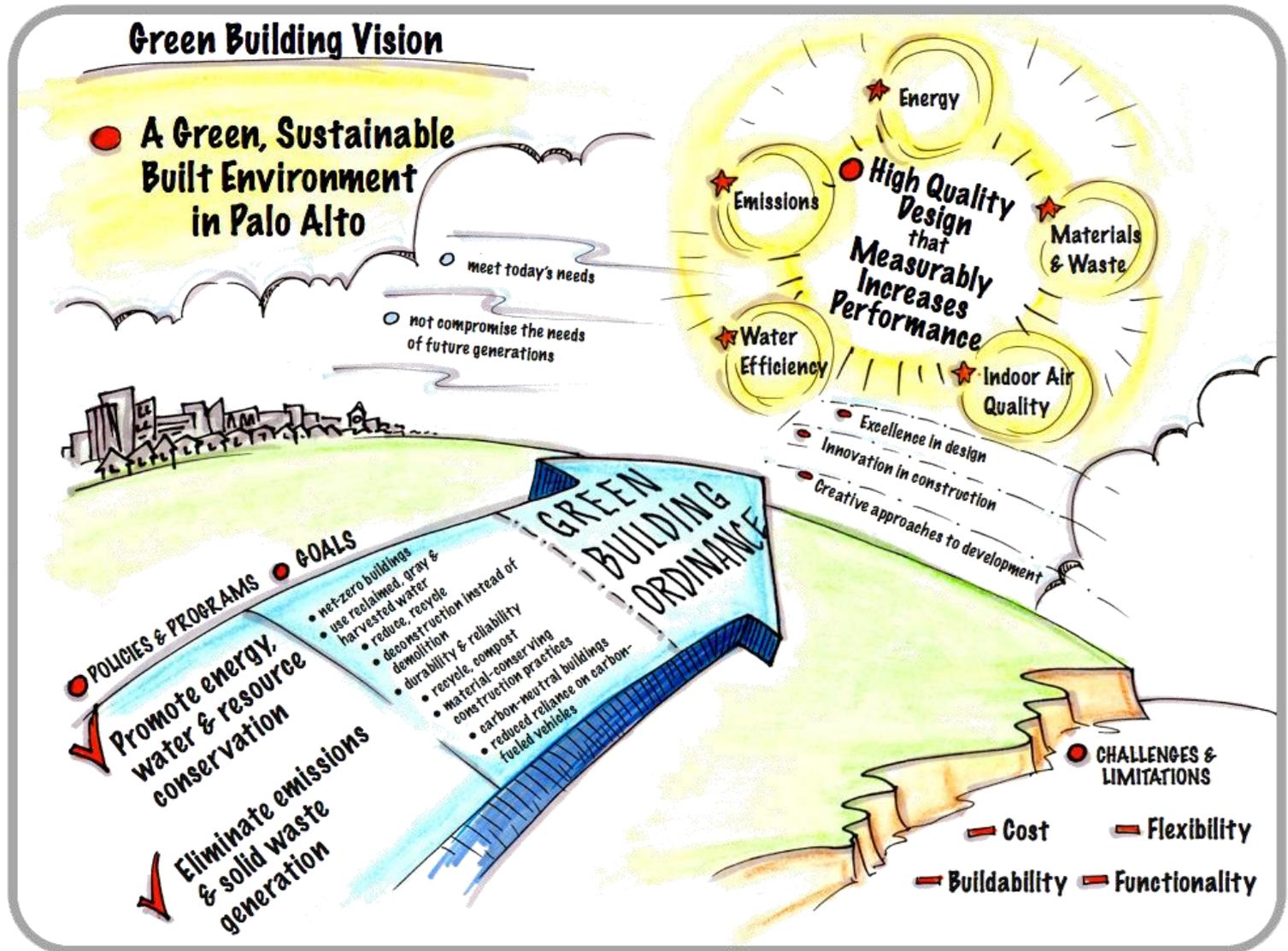
Energy Reach Code Ordinance Improvements

2. “Solar Ready” Infrastructure for new homes
 - Designated roof area of 500 square feet to enable future installation of solar power system
 - Installation of conduit extending from the roofline to the electrical panel for future solar power wiring
 - Exceptions for homes with existing protected trees under the Solar Shade Act and the Palo Alto Tree Ordinance

Green Building Ordinance Improvements

1. Using Residential Calgreen “Voluntary Tiers”
 - Adopts state standards “Tier 1 and Tier 2”
 - Retracts outside certification of Non-profit Build It Green
2. “Laundry-to-Landscape” Ready Infrastructure
 - Divert clean laundry water to irrigate landscape
3. Increased Water Efficiency Measures
 - Water-saving landscapes for lower square footage thresholds

Why a Reach Code is preferred...



Reach Code Motivation & Goals

- Economies of scale - Identify building types that will make the biggest difference
- Keep requirements simple and implementable
- Require cost-effective measures that will likely stay relevant within anticipated future technology advances
- Sync with parallel projects within the city:
 - City-Wide Sustainability Dashboard (S/CAP)
 - Fuel-Switching/Electrification
 - Utility Incentives & Zero Net Energy Design Review

Reach Code Considerations

- Themes emerge based on local concerns and cost-effectiveness study results
 - Overall result of study shifted energy policy towards building envelope measures
- Cost-effective measures can conflict with other policies

Example:

- U-factor of 0.048 for exterior wall replacement (cost-effective)
 - Would have resulted in only stucco as an option for exterior wall finish. This conflicts with Planning rules for diversity in architectural features.

Questions?

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