



Local Government Training

May, 2009

Integrating Climate Action Planning, Green Building, and Home Energy Retrofits

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Presentation Objectives

- ❖ Topics to Discuss:
 - Climate Action Planning Context
 - Importance of Home Energy Retrofits and Green Building
 - Model Program Practices
 - Implementation Resources
 - Next Steps



The 2006 Global Warming Solutions Act: Setting the Stage for Local Government Action

- ❖ AB 32 Goal: reduce GHGs to 1990 levels by 2020 (28% < BAU, 169 MMT CO₂e)
- ❖ Local governments play key role through authority to:
 - Design local programs
 - Adopt ordinances, standards, codes
- ❖ ARB target for local governments: 15% reductions 2020



PUC Strategic Plan: Reaching Out to Local Governments

- ❖ 2020 Goals for local governments:
 - 50% have adopted incentives or mandates to exceed energy codes
 - 100% have adopted energy efficiency / climate change action plans





Stockton: a Landmark Case in Global Addressing GHG Emissions

- ❖ First legal precedent in California to compel local governments to take action against climate change
- ❖ 2008 Lawsuit filed by the Sierra Club against Stockton's General Plan
- ❖ Lawsuit sparked creation of SB 375, new Smart Growth bill in California



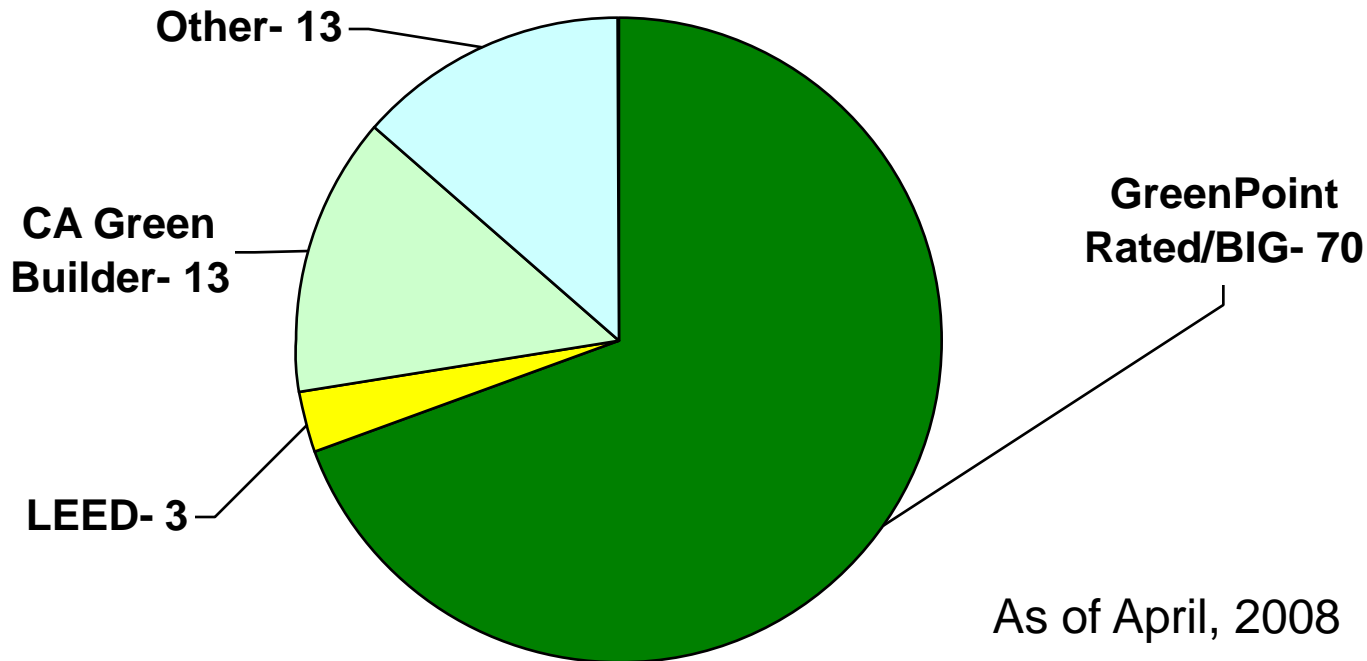
Stockton Climate Action Plan

- ❖ Settlement requires Climate Action Plan that includes
 - GreenPoint Rated mandatory ordinance for new homes
 - GHG reduction requirements for remodeling existing homes
 - Possible local assessment district / financing mechanism
 - Incentives for infill development



What Local Governments Are Already Doing

GreenPoint Rated is the **foundation** for the over 70 local jurisdiction **residential** green building ordinances around the State.





Next Steps: Climate Action Planning

- ❖ Local Government Steps to Prepare Climate Action Plan:
 1. Conduct baseline GHG inventory
 2. Establish GHG reduction target
 3. Develop Climate Action Plan
 4. Implement policies and measures
 5. Monitor and verify results



Climate Action Plans Should Address Existing Homes

- ❖ Over 13 million existing homes in California: 70% predate Energy Standards
- ❖ Existing Homes Offer #1 GHG Reduction Potential
- ❖ CPUC's 2020 goals for existing homes:
 - 3/4 of homes reduce purchased energy by 30%
 - ALL multi-family homes reduce purchased energy by 40%
 - 1/4 of homes reduce purchased energy by 70%



Green Home Retrofits Address Multiple Goals



- ❖ Promote home energy retrofits as 1st step toward comprehensive green home improvements



Tackling Existing Homes: Don't Go It Alone!

1. Plan & implement regionally for consistency, impact, & economies of scale
2. Reward performance-based home improvements
3. Set & enforce clear standards, provide smart incentives & easy financing



Tackling Existing Homes: Don't Reinvent the Wheel

1. Tap industry expertise, implement Best Practices for
 - Marketing, education, and outreach
 - Contractor training & green job development
 - Incentives and financing
 - Quality Assurance
2. Utilize existing systems for
 - Contractor & Rater training
 - Verification, QA / QC protocols
 - Project tracking, GHG quantification & reporting



Recommended Practices



Marketing, Education, & Outreach Best Practices

- ❖ **Our biggest competition is the ease of doing nothing.**
- ❖ Utilize social marketing expert
- ❖ Conduct upfront market research
- ❖ Use broad array of marketing tactics
- ❖ Use market segmentation to target markets & messages
- ❖ Craft messages to stimulate behavioral changes
- ❖ Pre-test messages as a normal practice





Harness the Market Value of Green Ratings

- ❖ Analysis of 3,000 Seattle-area home sales, Sep. '07—Mar. '08
- ❖ Green homes sold:
 - For 4.8-10.5% more
 - 24% faster

Northwest Multiple Listing Service



Contractor Training Required

Skill Set	Credential
Home Performance Contracting	Building Performance Contractor, BPI Certified Building Analyst 
Home Energy Rating	California Whole House Home Energy Rater
Green Building	GreenPoint Rater 



Financing & Incentives

- ❖ Currently available:
 - Tax credits
 - Utility incentives
 - Energy-efficient mortgages
- ❖ Local governments can add:
 - Incentives through EECBG
 - Property tax financing
- ❖ **Do It Regionally!**



Financing & Incentive Guidelines

- ❖ **No Free Audits.** Tie Audit incentives to implementing recommendations.
- ❖ **Offer contractor incentives.** They are the sales force
- ❖ **Pay for performance.** Require min. 20% improvement, demonstrated by HERS or Building Performance Contractor test-in & test-out
- ❖ **Partial financing for solar-only projects.**





Model Financing / Incentive Application Process

1. HERS / Building Performance Contractor test in, including combustion safety test, run HERS 2 analysis
2. Submit application (HERS reports, building permits, scope, cost estimate), reserve funds
3. Sign contract
4. (Optional) Submit contract, receive 50% advance
5. Conduct work
6. HERS / Building Performance Contractor test out
7. Submit final HERS results, invoices, utility bill authorization, request payment



Model Quality Assurance

- ❖ Three-strike system based on
 - Paper review of all applications for financing for compliance with program protocols and industry best practices
 - On-site inspection of sampled projects
 - Customer satisfaction surveys and customer complaint tracking



Previously Invented Wheels



Build It Green's Professional Training Program

Green Building Trainings

- ❖ Certified Green Building Professional: +3000
- ❖ Advanced Green Building: +425
- ❖ GreenPoint Rater New Home: +400
- ❖ GreenPoint Rater Existing Home: +55



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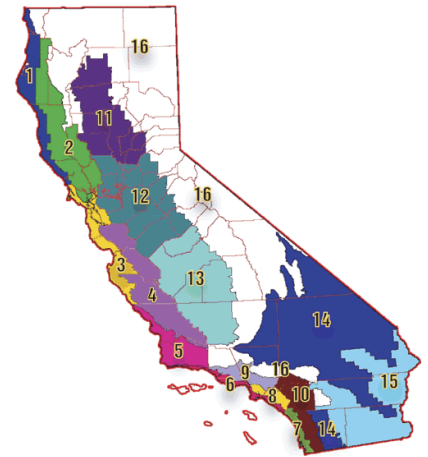


ARCHITECTURE & DEVELOPMENT



GreenPoint Rated

- ❖ Consumer label backed by third party verification provides credible yet accessible standard for green homes
- ❖ Toolkit for local government program implementation
 - Comprehensive checklist of best practices
 - Community Design
 - Energy Efficiency
 - Indoor Air Quality
 - Resource Conservation
 - Water Conservation
 - 3rd party verification protocols
 - Certified GreenPoint Rater network
 - Tracking system & Climate calculator



GreenPointRATED
A PROGRAM OF BUILD IT GREEN



GreenPoint Rated is Comprehensive

One Program

GreenPoint Rated Program

2 Rating Systems

GreenPoint Rated New Home

GreenPoint Rated Existing Home

Multifamily

Single Family

Whole House

Elements

4 Labels





GreenPoint Rated Existing Home

- ❖ First comprehensive existing home program in the nation
- ❖ Mirrors GreenPoint Rated New Home
- ❖ Credible criteria based on nationally accepted standards for home performance
- ❖ Compatible with Home Performance with Energy Star (HPwES)
- ❖ Matches California Energy Commission's HERS Phase II protocols for evaluation criteria for existing homes



GreenPoint Rated Tracking System

Build It Green - Projects Dashboard - Mozilla Firefox

http://builditgreen1.feynman.net/ProjectsDashboard.aspx

GreenPointRATED

PROJECTS DASHBOARD | START NEW PROJECT | REPORTS | RESOURCE ROOM | CONTACT BIG | LOGOUT

home / PROJECTS DASHBOARD

Good afternoon James. Below is your summary of current BIG GPR projects. Sort the table by any column header or use the search tool to narrow your results. To view more details about a project in-depth, click in any data field.

SEARCH TABLE Search

All Fields Application Date Approved Date County Advanced

Projects Summary display [-] [+] [all] results [print table] [<<<] [<<] [1] [>>] [>>>]

Title/Status	Submittals	Type	Rater	Developer	City	Phased	Logo Use	Assigned
Oak Glen / Applied	(Fin) Complete (37)	SF	Joe	Hammond Fine Homes	Penngrove	No	Applied	Unassigned
Wallace Residence / In Progress	(Fin) Complete (37)	SF	Joe	NA	Woodside	No	Applied	Unassigned
Malek Residence / Applied	(App) Applied (37)	SF	Joe	Safwat Malek		No	Applied	John
4580 Dawn Lane, Soquel / Applied	(Fin) Complete (37)	SF	Joe	Bill Lindeke	Soquel	No	Applied	Unassigned
Wallace Residence / Applied	(App) Complete (37)	SF	Joe	NA	Woodside	No	Applied	Unassigned
Malek Residence / Applied	(App) Applied (37)	SF	Joe	Safwat Malek		No	Applied	James
4580 Dawn Lane, Soquel / Finalized	(Fin) Complete (37)	SF	Joe	Bill Lindeke	Soquel	Yes	In Review	Jill
Wallace Residence / Applied	(App) Applied (37)	SF	Joe	NA	Woodside	No	Applied	Unassigned
Villa Terra / Applied	(App) Applied (37)	SF	Joe	Noel Cross Architect	San Jose	No	Applied	Unassigned
Oak Glen / Applied	(App) Applied (37)	SF	Joe	Hammond Fine Homes	Penngrove	No	Applied	Unassigned
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Villa Terra / In Progress	(App) Pending (37)	SF	Joe	Noel Cross Architect	San Jose	Yes	Complete	Unassigned
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Home | ProjectsDashboard | Start New Project | Reports | Resource Room | Contact BIG

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Climate Calculator Outputs

- ❖ Savings from building green:
 - Therms
 - kWh
 - GHGs of refrigerant
 - Waste (tons)
 - Gallons of water indoors & outdoors
 - Vehicle miles traveled
- ❖ CO₂ equivalents of all above
- ❖ Forecasted and actual savings
- ❖ Footprint
- ❖ Scope 1, 2 & 3 emissions
- ❖ Results on GPR Consumer label

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GreenPoint RATED

EXISTING HOME

Whole House

ADDRESS: Freeda Court
732 Hayes Avenue
Livermore CA, 94550

YEAR BUILT: 1950, upgraded to 2005 codes

BASED ON: Single Family, ver. 1.0

PERFORMANCE ABOVE A CONVENTIONAL
HOME BUILT IN THE SAME YEAR.



Estimated resources saved versus a conventional home

5368 gallons of water saved per year

7443 kilowatt hours saved per year

5 tons of CO₂ emissions avoided per year

34% energy efficiency improvement overall



Final Recommendation: Collaborate Regionally!

- ❖ Pool Energy Efficiency & Conservation Block Grants (min. 10%)
- ❖ Regional plans permit more thorough market research, more robust designs
- ❖ Regional marketing campaigns have higher impact
- ❖ Regional programs attract contractor participation
- ❖ Regional admin, QA, deliver economies of scale
- ❖ Centralized tracking, GHG quantification, reporting provides comparable results



Contact Us

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