

Statewide Codes & Standards Reach Code Program

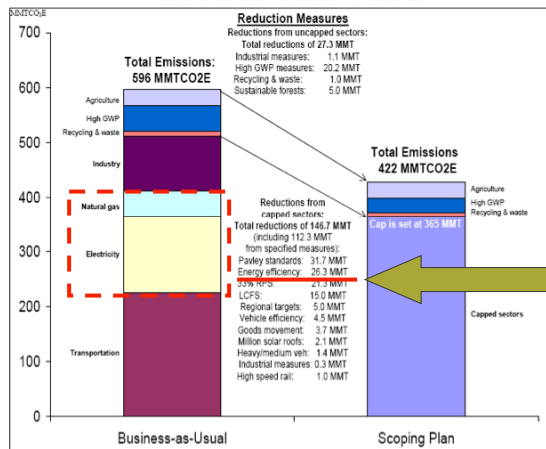
Statewide Energy Efficiency Best Practices Forum October 14, 2010

Javier Mariscal, Southern California Edison



Why Energy Efficiency Matters

Figure 3: California Greenhouse Gas Emissions in 2020 and Recommended Reduction Measures



“Energy efficiency measures for both electricity and natural gas can reduce greenhouse gas emissions significantly”

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GHG Estimate: Rules of Thumb

1 kWh \approx 1 CO₂e lb

1 kilowatt hour of electricity saved reduces about 1 pound of equivalent carbon dioxide



1 MMBtu \approx 117 CO₂e lbs

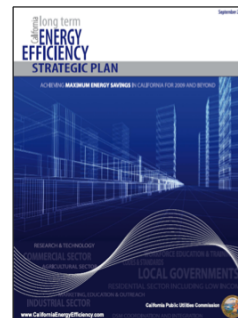
1 million British thermal units of natural gas saved reduces about 117 pounds of equivalent carbon dioxide

Source: *CoolCalifornia.org* – a partnership between CEC, CPUC, CARB, Universities, Non-Profits

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California Long Term Energy Efficiency Strategic Plan (2009)

- Sets forth a roadmap for energy efficiency in California through the year 2020 and beyond.
- Developed through a collaborative process involving California Public Utilities Commission (CPUC), Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), San Diego Gas & Electric Company (SDG&E) and Southern California Gas Company (SoCalGas).

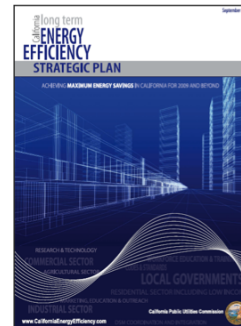


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Local Governments Are Leaders

“By 2020, California’s local governments will be leaders in using energy efficiency to reduce energy use and global warming emissions both in their own facilities and throughout their communities.”

- California Energy Efficiency Strategic Plan



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California Zero Net Energy Goal

“BIG BOLD” ENERGY EFFICIENCY STRATEGIES

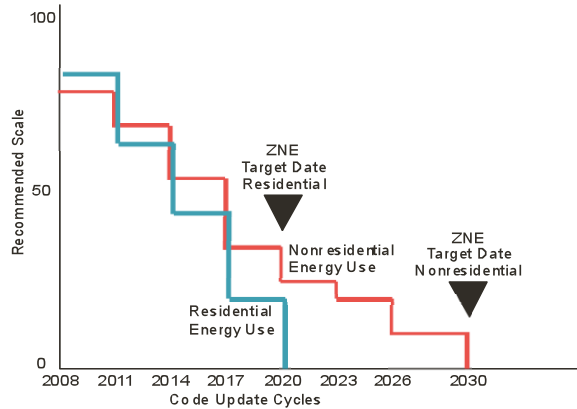


In order to guide market transformation in a number of key sectors, this Plan embraces four specific programmatic goals, known as the “Big Bold Energy Efficiency Strategies,” established by the CPUC in D.07-10-032 and D.07-12-051. These goals were selected not only for their potential impact, but also for their easy comprehension and their ability to galvanize market players.

1. All new residential construction in California will be zero net energy by 2020;
2. All new commercial construction in California will be zero net energy by 2030;
3. Heating, Ventilation and Air Conditioning (HVAC) will be transformed to ensure that its energy performance is optimal for California’s climate; and
4. All eligible low-income customers will be given the opportunity to participate in the low income energy efficiency program by 2020.

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Reach Codes Advance ZNE



“A broad range of aggressive and continually improving minimum and higher voluntary sets of energy codes and standards will be adopted to greatly accelerate the widespread deployment of zero-net energy and highly efficient buildings and equipment...”

- California Energy Efficiency Strategic Plan

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Reach Code - Key Issues

- Green rating systems (e.g. LEED, GreenPoint Rated) are **NOT** code
- Utility incentive programs are **NOT** negatively impacted by “raising the bar”
- Reach Code may be customized to meet local needs
- Trigger thresholds (renovations/additions)

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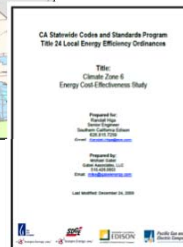
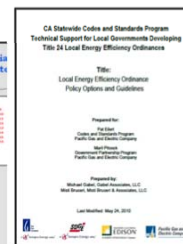
Reach Code Adoption Process

- California Energy Commission oversees local government adoption of energy standards that are more stringent than the statewide Standards.
- Must document that proposed “beyond code” energy standards are **cost-effective**.

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Reach Code Program Status

- SCE, SoCalGas, and PG&E are working collaboratively
- Completed Cost-Effectiveness Analysis for each Climate Zone (16 total in CA)
- Completed policy options “Roadmap” for adopting Reach Code



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Join the “CEC Reach Code” Club

Local Ordinances

| | |
|--------------------------------|-------------------|
| City of Redwood | May 5, 2010 |
| City of Los Altos | May 5, 2010 |
| County of Marin | May 5, 2010 |
| City of San Rafael | May 5, 2010 |
| City of Union City | February 10, 2010 |
| City of Morgan Hill | January 27, 2010 |
| City of Richmond | December 16, 2009 |
| City of Palo Alto | December 16, 2009 |
| City of Chula Vista | December 16, 2009 |
| County of Santa Clara | December 16, 2009 |
| City of San Jose | December 16, 2009 |
| County of Sonoma | December 16, 2009 |
| City of Hayward | December 2, 2009 |
| City & County of San Francisco | July 15, 2009 |

Date Approved



Please note that under the authority of Section 10-106 of the Building Energy Efficiency Standards, only those local ordinances that have been approved by the California Energy Commission are legally enforceable.

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T24 Role-Based Training - Status

- Statewide IOU C&S team completed T24 role based training based on statewide survey conducted in Spring 2010.
- Customized Tier 1 courses have been developed for 2008 Title 24 Energy Efficiency Standards for Building Department Plan Examiners & Field Inspectors

Scoping Study Conclusions:

- The code is complicated & the code isn't enforced
- People responsible for enforcing the code need to understand it...must be expected to enforce it...and must have the time and resources to do so
- Roles in immediate need of training include: plans examiners, building inspectors and energy consultants

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T24 Role-Based Training – Next Steps

- Statewide roll out of trainings proposed to begin Fall 2010.
- Coordinate delivery of trainings to local building departments:
 - ❖ 25 to 30 participants (3 to 6 building depts) per session
 - ❖ Local host site needed per session

Adults learn best when they...

- Are actively involved in the learning process
- Receive timely and appropriate feedback
- See how the new knowledge and skills will help them meet their goals
- Can use their natural learning style(s)
- Can relate new information, concepts, and skills to their current knowledge and skills
- Experience success in comfortable and secure learning environment

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Questions?

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