



Local Governments and California's Zero Net Energy Buildings Goals

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Panel Moderator:

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California Public Utilities Commission



California's Zero Energy Building Goals Adopted by CEC & CPUC('07) and Gov. Office ('12)

- All new residential construction in California will be zero net energy by 2020
- All new commercial construction in California will be zero net energy by 2030
 - 50% of existing commercial buildings will be retrofit to ZNE by 2030
- All new state buildings and major renovations starting design in 2025 shall be ZNE, and 50% of buildings will be renovated to ZNE



DPR Construction San Diego Corporate Office , Chip Fox, DG&E



One Sky Homes Cottle House in San Jose, Allen Gilliland

Draft Local Government Action Plan Approaches

Lead by Example: Local governments, independently, **as part of regional energy efforts**, and/or **in partnership with the IOUs**, pursue optimal solutions to reduce energy use and greenhouse gas emissions and **demonstrate** emerging high-potential products and **practices in their own facilities and operations** necessary for meeting the State's ambitious **zero net energy (ZNE) goals**.

Community Leadership: Local governments **lead their communities** to advance the State's energy efficiency, ZNE, and greenhouse gas emissions reduction goals.



IBEW Zero Net Energy Center, San Leandro

Draft Local Government Action Plan Strategies

An increasing percentage of local governments **adopt or encourage local government building policies** that advance the State's zero net energy (ZNE) goals.

Local **governments serve as venues for new technologies and practices** to accelerate the State's zero net energy (ZNE) goals, examples include:

- Local governments **build new and retrofit existing facilities** that serve as **demonstration ZNE projects** for their communities
- **Local governments incorporate passive and natural systems strategies into municipal building and campus projects** that may include: building orientation to the sun (natural daylight and heat), wind, shade canopy, cool roofs and green roofs, landscaping, and hydrology to advance the State's ZNE goals



SMUD East Campus Operations Center, Doug Norwood



David and Lucille Packard Foundation, Los Altos, CA

Goal 3 (draft): Local Govt's accelerate EE, ZNE and GHG through use of regulatory authority

Strategy 3-4: *Develop, adopt, and implement model energy efficiency and zero net energy building energy policies and codes on a mandatory or a voluntary basis.*

- **Promote CALGreen** Energy Tiers and other green building rating systems such as LEED and GreenPoint Rated
- **Develop model incentives**, programs and policies, such as **expedited permitting and reduced fee structures**, for new green buildings and other above-code developments, and to increase the number of renewable energy installations in California
- **Adopt a reach code** for new and existing buildings
- Work with Residential and Nonresidential New Construction stakeholders to **develop model ZNE homes and commercial buildings**, their economics, and a strategy for promoting their construction
- Develop/and promote a **pathway to approve zero net energy (ZNE) buildings**



IDeAsZ² Office Building San Jose, CA

Goal 2 (draft): Include EE in broader energy and sustainability goals, like **Climate Action Plans**

- adopt guidance documents that **demonstrate local commitment** to addressing the State's energy efficiency, ZNE, and GHG reduction goals
- draft and **implement long-range plans** to advance the State's energy efficiency, zero net energy, and climate change goals within their communities.
- Adopt policies to **address the use of passive and natural systems** such as building orientation to the sun (natural daylight and heat), wind, shade canopy, cool roofs and green roofs, landscaping and hydrology **in concert with the State's Zero Net Energy goals**



Los Vecinos Affordable Housing, Chula Vista, Developed by Wakeland Housing with Energy Commission support, Global Green USA, Walker Wells

And now, on to the presentations...

Thank you~

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California Public Utilities Commission -
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CPUC ZNE Buildings Website

<http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/Zero+Net+Energy+Buildings.htm>

ZNE Residential Action Plan Website

www.CaliforniaZNEhomes.com

