

Connecting CAP Policies with State ZNE Goals

Presentation for City of San Diego Sustainable Energy Advisory Board

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Center for
Sustainable Energy™

Developed ZNE roadmap with
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Energy Partnership

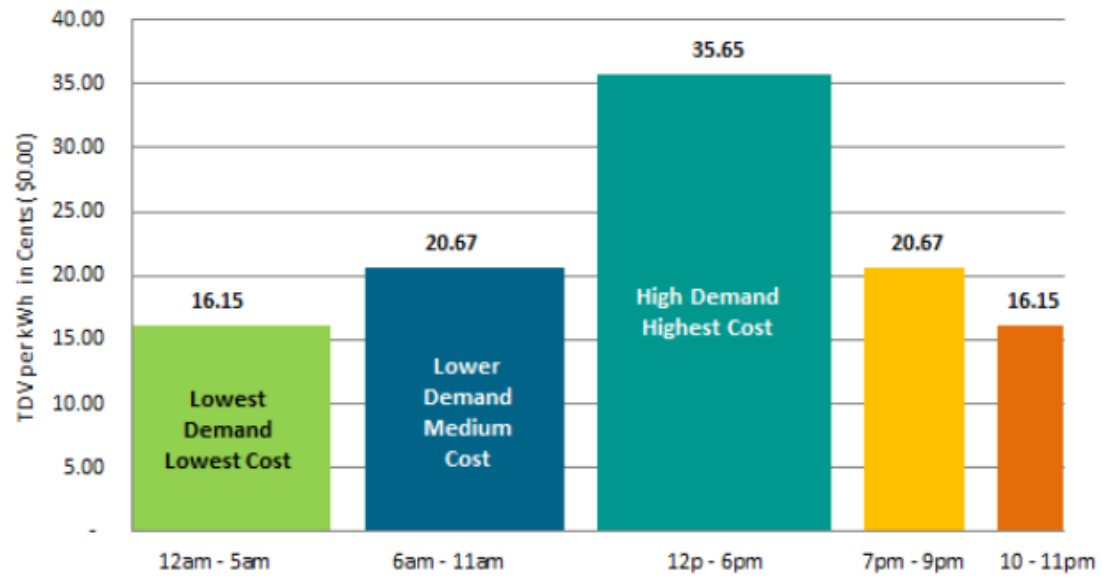
www.energycenter.org/zne

What is “Zero Net Energy”?

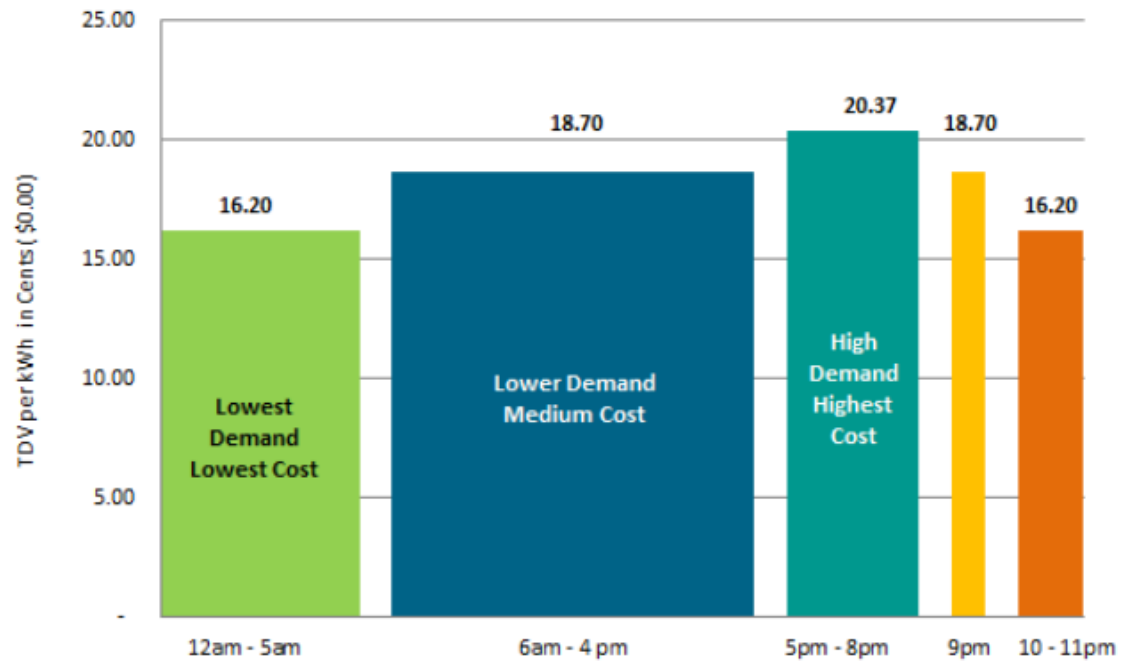
A Zero-Net-Energy Code Building is one where the **net amount of energy produced by on-site renewable energy resources** is equal to **the value of the energy consumed annually by the building**, at the level of a single “project” seeking development entitlements and building code permits, measured using the California Energy Commission’s Time Dependent Valuation metric.

-- California Energy Commission, 2013 Integrated Energy Policy Report

Average Summer TDV per kWh in Climate Zones 7 & 10



Average Winter TDV per kWh in Climate Zones 7 & 10



California's ZNE Goals

- All **new residential construction** will be ZNE by 2020
- All new and 50 percent of existing **state-owned public buildings** will be ZNE by 2025
- All **new commercial buildings** will be ZNE by 2030
- 50 percent of **existing commercial buildings** will be retrofit to Zero Net Energy buildings by 2030

ZNE ROADMAP FOR LOCAL GOVERNMENTS

What policies can spur the market for ZNE buildings?

A wide-angle photograph of the San Francisco City Hall building, featuring a prominent central dome and a tall spire. The building is white with classical architectural details. In the foreground, there is a paved plaza with a row of young trees on both sides. Several flags are flying on poles in front of the building. The sky is clear and blue. A street sign for 'LARKIN' is visible on the right side of the image.

1. Officially adopt ZNE goals

A woman in a blue dress is standing at the front of a meeting room, presenting to a group of people seated around a long table. The room has a large whiteboard, a clock, and an exit sign. The text "2. Create a ZNE task force" is overlaid on the image.

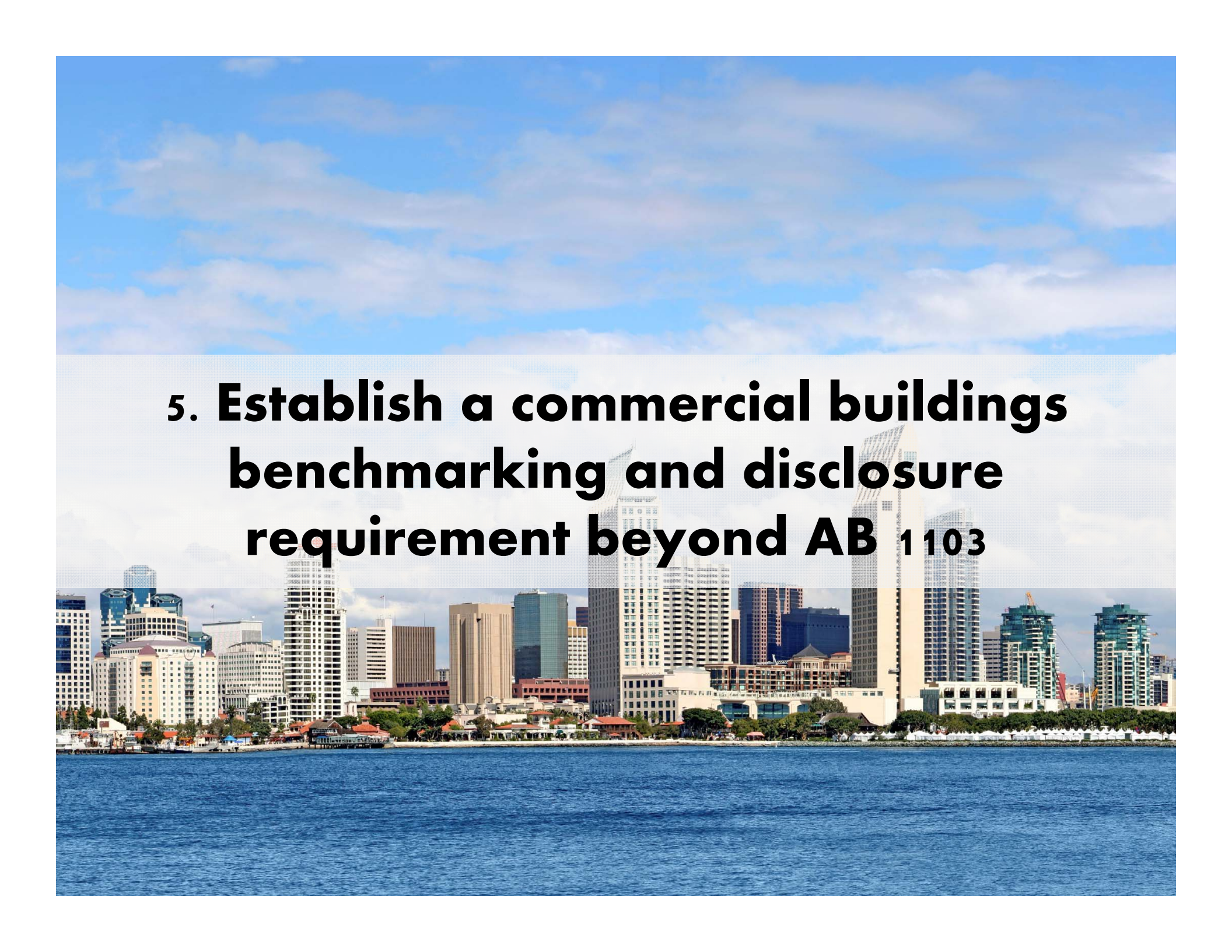
2. Create a ZNE task force



3. Enact reach codes or local ordinances that exceed Title 24, Part 6



**4. Transform municipal buildings into
ZNE buildings**



5. Establish a commercial buildings benchmarking and disclosure requirement beyond AB 1103



6. Streamline permitting and interconnection processes for energy efficiency and solar



7. Create or enhance incentives for construction that exceeds Title 24, Part 6

A group of approximately ten people, including men and women in professional attire, are gathered around a podium. The podium features the official seal of the County of San Diego, which includes the text "THE NOBLEST MOTIVE IS THE PUBLIC GOOD" and "COUNTY OF SAN DIEGO". The seal also depicts a landscape with a ship, a plow, and a sheaf of wheat. The background shows a modern building with large glass windows and a brick wall. A woman on the right is holding a sign with logos, including the PACE logo.

8. Enact PACE financing program(s) for commercial building sector

A group of people are seated in a room, likely attending a meeting or presentation. The room has a curved ceiling and large windows in the background. The text is overlaid on a semi-transparent white box in the center of the image.

9. Provide ZNE education and outreach to industry stakeholders

ZNE Roadmap + Examples	Proposed San Diego Ordinances
<p>1. Officially adopt ZNE goals</p> <ul style="list-style-type: none"> Lancaster 	<ul style="list-style-type: none"> Municipal energy strategy and implementation plan General Plan Policy CE-A.5 CCA
<p>2. Create a ZNE task force</p> <ul style="list-style-type: none"> San Francisco (green building task force) 	
<p>3. Enact reach codes or local ordinances that exceed Title 24, Part 6</p> <ul style="list-style-type: none"> Lancaster (solar) San Francisco (GreenPoint Rated) Glendale (radiant roof barriers) Los Angeles and Pasadena (cool roofs) Chula Vista (pre-wire for PV; pre-plumb for solar water heating) County of San Diego (pending: pre-wire and size panel for PV/EV) 	<ul style="list-style-type: none"> Cool roof ordinance Local green building ordinances that exceed Title 24 Pre-wire for PV/EV, pre-plumb for solar water heating ordinances
<p>4. Transform municipal buildings into ZNE buildings</p> <ul style="list-style-type: none"> Santa Barbara County (new and existing buildings) 	<ul style="list-style-type: none"> Municipal energy strategy and implementation plan ZNE policy for new municipal buildings

ZNE Roadmap + Examples	Proposed San Diego Ordinances
<p>5. Establish a commercial buildings benchmarking and disclosure requirement beyond AB 1103</p> <ul style="list-style-type: none"> • NY, DC, Seattle, Minneapolis • CEC AB 758 Action Plan 	<ul style="list-style-type: none"> • Non-residential energy conservation and disclosure ordinance
<p>6. Streamline permitting and interconnection processes for energy efficiency and solar</p> <ul style="list-style-type: none"> • County of San Diego (online permitting) • City of Los Angeles 	<ul style="list-style-type: none"> • Encourage PV installation via professional certification permitting program • Programs to promote onsite PV and storage
<p>7. Create or enhance incentives for construction that exceeds Title 24, Part 6</p> <ul style="list-style-type: none"> • Encinitas and Solana Beach (priority plan check, public recognition) 	<ul style="list-style-type: none"> • Expand incentive programs for energy efficiency in buildings • Programs to promote onsite PV and storage
<p>8. Enact PACE financing program(s) for commercial building sector</p> <ul style="list-style-type: none"> • City of San Diego 	<ul style="list-style-type: none"> • Expand PACE financing
<p>9. Provide ZNE education and outreach to industry stakeholders</p> <ul style="list-style-type: none"> • Chula Vista 	

Questions?

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*Stay tuned for ZNE webinar in June 2015 with speakers from Chula Vista, Lancaster, and Santa Barbara County