

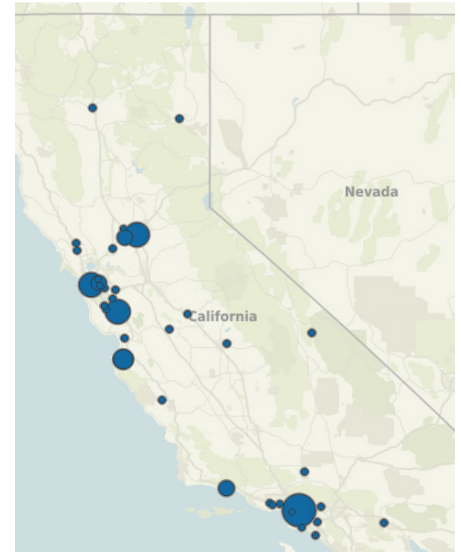
California ZNE Watchlist



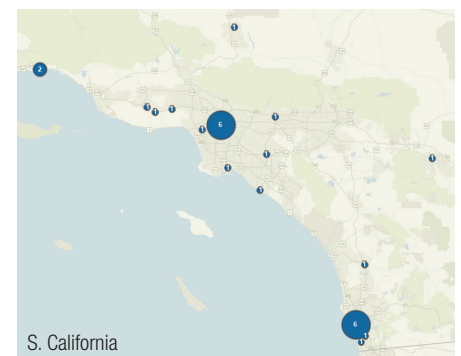
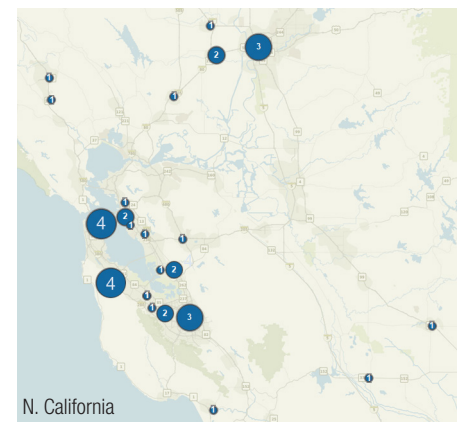
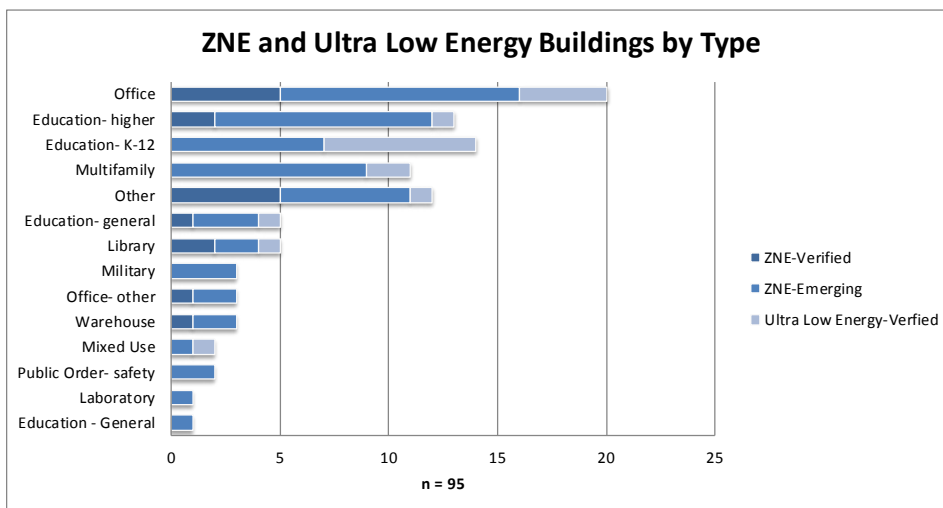
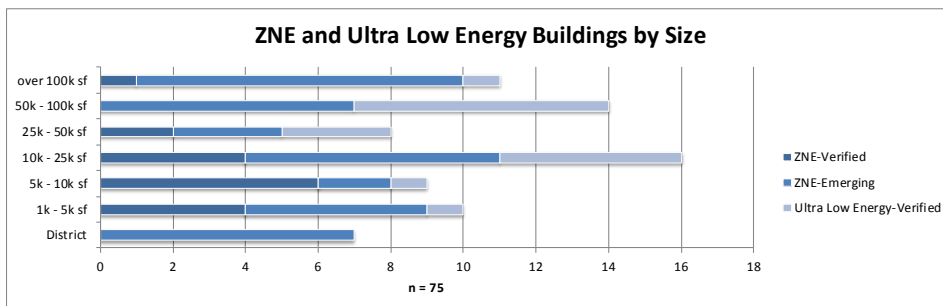
California leads the country in both policy and projects that are laying the path to a zero net energy (ZNE) future. California state agencies have adopted goals for 100% of new and 50% of existing commercial buildings to be ZNE by 2030. Leading design firms and owners have already recognized the real estate and occupancy advantages of these high performance buildings and today California has 77 commercial buildings either verified (17) as ZNE or emerging (60) toward that target.

This CA ZNE Watchlist tracks commercial buildings (including multi-family) based on information gathered by New Buildings Institute (NBI) from multiple sources including designers, owners, utility programs, private and public organizations, articles, e-news, research, and commercial real estate professionals. It serves, along with other available ZNE resources¹, to support the awareness, acceptance and adoption of ZNE goals and outcomes throughout California and the nation. Buildings with ultra-low energy performance comparable to ZNE are also included.

The graphics below show the trends in location, type and size of the ZNE buildings in California.



Locations of CA ZNE Verified and Emerging ZNE Building. Dot size represents volume of buildings.



¹ For more resources: CPUC (<http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/Zero+Net+Energy+Buildings.htm>) and NBI (www.newbuildings.org/zero-energy)

List of Zero Energy & Ultra-Low Energy Buildings in California

This ZNE Watchlist provides examples of commercial buildings that have verified zero net energy (ZNE) performance, are emerging toward a ZNE goal or reflect comparable ultra-low energy performance. These are defined as:

- **ZNE Verified** buildings (or districts) have been documented to have met, over the course of a year, all net energy use through onsite renewables. The energy use of all fuels (electric, natural gas, steam, etc.) is counted and offset by production from onsite renewables.
- **ZNE Emerging** buildings (or districts) have a publically stated goal of ZNE but do not yet meet the definition of ZNE verified. These may be in the planning or design phase, under construction or have been in operation for less than a year. Others may have been operating for 12 months or longer, but their measured energy has either yet to achieve net zero or the measured data to document ZNE verified status was not available.
- **Ultra-low Energy Verified** buildings have 12 or more months of metered data that documents energy performance comparable to ZNE buildings (typically 60-80% better than the national industry average). They expand the set of building examples with design strategies and technologies that have resulted in ultra-low energy use. They may have limited renewable resources onsite but do not have a known stated goal of ZNE.

There are, undoubtedly, other projects that belong on this list and/or corrections and updates to this directory. Provide information or add new projects through the NBI Registry located at: newbuildings.org/share or email us at info@newbuildings.org.

Building Name	Year Completed	Location	Building Type	Size SF	Total EUI	Site RPI	Net EUI
Verified ZNE							
Audubon Center at Debs Park	2003	E Los Angeles	Other	5,020	17.1	17.1	0.0
Bacon St. Offices	2009	San Diego	Office	4,500	12.7	22.2	-9.5
Challengers Tennis Club	2002	Los Angeles	Other	3,500	9.0	9.0	0.0
David and Lucile Packard Foundation ¹	2012	Los Altos	Office	49,161	24.4	29.0	-4.6
Diamond X Ranch Student Intern Center-Malibu	2011	Calabasas	Other	3,500	31.5	35.1	-3.6
DPR Construction San Diego Net Zero Office	2010	San Diego	Office	24,000	14.8	17.1	-2.4
DPR San Francisco Office	2014	San Francisco	Office	24,000	20.7	22.1	-1.4
Environmental Nature Center	2008	Newport Beach	Other	8,535	17.6	27.7	-10.1
Environmental Tech. Center Sonoma State	2001	Rohnert Park	Education-higher	2,200	2.3	3.8	-1.5
IBEW Local 595 Zero Net Energy Center	2013	San Leandro	Education-general	45,001	15	21	-6
IDEAs Z2 Design Facility ¹	2007	San Jose	Office	6,557	22.6	23.2	-0.6
Jess Jackson Sustainable Winery Building	2014	Davis	Warehouse	8,500	1.4	2.7	-1.3
Leslie Shao-Ming Sun Field Station	2002	Woodside	Education-higher	13,200	7.1	8.5	-1.4
Sacred Heart Schools Stevens Family Library ¹	2012	Atherton	Library	6,300	16.9	29.1	-12.2
Vacaville Transportation Center	2011	Vacaville	Other	261,360	0.1	0.2	-0.1
Watsonville Water Resources Center	2009	Watsonville	Office- other	16,000	51.4	117.8	-66.4
West Berkeley Public Library ¹	2013	Berkeley	Library	9,399	24.7	27.6	-2.9

¹-Building is ZNE certified by the International Living Future Institute

Buildings listed in **Bold** are new to the specific list they appear on

Energy Use Intensity (EUI) is the (total or net) building use of site energy in kBtus/sf/yr. Buildings that have been verified as ZNE have either a zero net building EUI or a negative net building EUI meaning the renewable production exceeded the energy use.

Renewable Production Intensity (RPI) is the energy generation onsite per year in kBtus/sf/yr. This term was created by NBI for use in this context.



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Emerging ZNE							
435 Indio	2013	Sunnyvale	Office	31,800	21.5	18.0	3.5
Aquarium of the Pacific Watershed Addition	2008	Long Beach	Education- general	2,500			
Aster Place	2012	Eureka	Multifamily	NA			
Bagatelos Architectural Glass Solutions	2008	Sacramento	warehouse	63,000	10.4	8.1	2.3
BEST Center at Laney College	UC	Oakland	Education- higher	District			
Blackford School Multi-Use Building	2013	San Jose	Education- K-12	NA			
Broadway High School		San Jose	Education- K-12	NA			
California Department of Motor Vehicles		Various	office	NA			
California DOT SFOBB Phase 2 Warehouse		San Francisco	warehouse	NA			
Camp Parks		Dublin	Military	District			
Church Hill Townhomes	2013	Fortuna	Multifamily	NA			
College of the Desert West Valley Campus - Phase 1	2013	Palm Springs	Education- higher	50,000			
Conrad N. Hilton Foundation	2012	Agoura Hills	Office	22,240	22.0	24.0	-2.0
Delta Americas Headquarters	2015	Fremont	Office- other	200,000			
East L. A. College Student Center	2014	Los Angeles	Education-higher	136,000			
EcoCenter at Heron's Head Park	2010	San Francisco	Education-general	2,400	N/A	N/A	0.0
Exploratorium (M)	2013	San Francisco	Other	330,000	45	37	8
Family Pet Hospital	2014	Clovis	Other	8,700			
Forest Service's Technology and Development Center	2013	San Dimas	Office- other	NA			
Fort Hunter Liggett	UC	Jolon	Military	District			
George V Leyva Middle School Admin Building	2011	San Jose	Office	9,200			
Hanover Page Mill Building	2015	Palo Alto	Office	89,584	12	8	4
Hayward's 21st Century Library	2015	Hayward	Library	57,000	35.6	43.2	-7.6
Imperial Beach Branch Library	2016	Imperial Beach	Library	14,000			
Kaiser Antelope Valley Specialty Medical Office	2014	Lancaster	Office	136,800			
La Escuelita Education Center	2014	Oakland	Education-K-12	123,000			
La Valentina North	2012	Sacramento	Multifamily	19,875	31	6	25
Los Angeles Harbor College Sciences Complex	2013	Los Angeles	Education-higher	73,767			
Los Guilicos Correctional Facility	2013	Santa Rosa	Public Order-safety	149,000	33	20	13
LPL Finacial Center at La Jolla Commons	2014	San Diego	Office	415,000			
Morphosis Architecture Studio	2012	Culver City	Office	11,600	24	20	4
Mutual Housing at Spring Lake	2015	Woodland	Multifamily	64,600			
Net Zero Plus Electrical Training Institute	2015	Los Angeles	Education-general	142,000			
Oak Park High School	2014	Oak Park	Education-K-12	960			
Ohlone Campus Core Replacement Project	2017	Fremont	Education-higher	District			
Pierce College M&O Facility &Central Plant	2011	Los Angeles	Other	42,000			
Plaza Point	2012	Arcata	Multifamily	NA			
Redding School for the Arts	2011	Redding	Education-K-12	77,091	16	8	8
Rio Vista	2015	San Ysidro	Multifamily	NA			
Rohner Village	2013	Fortuna	Multifamily	NA			

(M) after the name indicates measured energy use. All others are estimated / modeled.

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San Luis Nati'l Wildlife Refuge Complex HQ & Visitor Ctr (M)	2012	Los Banos	Education- general	17,000	45	27	18
SFO Airfield Operations Center	2014	San Mateo	Other	8,300			
SFO Airport Campus	2020	San Mateo	Airport	NA			
SFO Firehouse #3	2016	San Mateo	Fire Station	20,000			
SFO Ground Transportation Unit Facility	2017	San Mateo	Other	14,000			
Sierra Army Depot		Herlong	Military	District			
Sierra Aquatic Research Lab, Classrom & Lecture Hall	2015	Mammoth Lakes	Education- higher	2,696			
SMUD Net Zero Campus - E. Operations Center	2013	Scaramento	Office	350,000			
Solana Ranch Elementary School	2014	San Diego	Education- K-12	68,000			
Solterra EcoLuxury Apartments	2013	San Diego	Multifamily	NA			
Sonoma Court	2014	Escondido	Multifamily	NA			
Stanford Central Energy Facility Admin Building		Stanford	Office	NA			
Student Services Center at Mesa College	2012	San Diego	Education-higher	85,000			
East L. A. College Student Center	2014	Los Angeles	Education-higher	136,000			
UC Davis West Village (eco district)	2012	Davis	Mixed Use	District			
UC Merced	2020	Merced	Education- higher	District			
UC San Diego J Craig Venter Institute	2013	La Jolla	Laboratory	45,000	68	81	-13
UC Santa Barbara Recreation Center		Santa Barbara	Education-higher	140,000			
UC Santa Barbara Student Services Buildings		Santa Barbara	Education-higher	District			
VF Outdoor HQ (M)	2013	Alameda	Office	160,000			
Ultra-low Energy Verified	2020	Merced	Education- higher	District			
355 11th Street: Multi-Use Building (M)	2010	San Francisco	Mixed Use	14,000	10	9	1
Alameda County Library (M)	2011	Castro Valley	Library	34,537	64	47	17
Aventine (M)		La Jolla	Office	253,000	23	0	23
Carlton Hills Modernization (M)	2008	Santee	Education-K-12	56,159	26.0	0.0	26.0
Carlton Oaks Modernization (M)	2008	Santee	Education-K-12	61,675	24.0	0.0	24.0
Center for Children & Families-CSU San Marcos (M)	2007	San Marcos	Education- general	20,200	28.0	0.0	28.0
Claiborne & Churchill Winery (M)	1996	San Luis Obispo	Office	2,585	20.0	0.0	20.0
Colorado Court Affordable Housing (M)	2002	Santa Monica	Multifamily	29,900	38.8	2.4	36.4
Georgina Blach Intermediate School (M)	2002	Los Altos	Education-K-12	71,741	33	0	33
High Tech High - Chula Vista (M)	2009	Chula Vista	Education-K-12	44,370	40.3	14.2	26.1
Jane D'Aza House of Formation (M)	2005	San Rafael	Other	6,200	7.0	0.0	7.0
Jeffrey Trail Middle School	2013	Irvine	Education- K-12	73,200	29.0	12.0	17.0
Kirsch Center at De Anza College (M)	2005	Los Altos	Education-higher	21,600	33	10	23
Los Vecinos - Multifamily (M)	2009	Chula Vista	Multifamily	51,000	19.2	9.0	10.2
Navy Building 850 (M)		Port Hueneme	Office	17,000	25	11	15
Ridgehaven Office Building (M)	1995	San Diego	Office	78,000	24	0	24
Sycamore Canyon Modernization (M)	2008	Santee	Education-K-12	52,000	23.0	0.0	23.0
Westmont High School Science Education Facility (M)	2004	Campbell	Education-K-12	12,362	18.9	0.0	18.9

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