

# ELECTRICITY USAGE IN CALIFORNIA COMMUNITY CHOICE REGIONS

COMPARING STATE AND LOCAL PROFILES (1)

## Analysis of Load in 2000

		<u>San Francisco Co</u>	<u>Marin Co.</u>	<u>LA Co.</u>	<u>Alameda Co.</u>	<u>San Diego Co.</u>	<u>Solano Co.</u>	<u>California</u>
Total population	est (3)	776,733	247,289	9,519,330	1,443,939	2,813,833	394,930	33,873,294
Community choice population	est (4)	776,733	247,289	1,320,000	470,102	0	117,148	2,931,272
% community choice		100%	100%	14%	33%	0%	30%	9%
average load (2)	MW	658	179	7,313	1,213	2,030	351	28,640
avg. community choice load	MW (7)	658	179	1,014	395	0	104	2,350
<b>Community Choice Scenario I</b>								
<b>renewable load capacity</b>	<b>20%</b>	132	36	203	79	0	21	470
renewable portfolio	kwh	230,446,133	62,863,524	355,344,981	138,422,469	0	36,521,385	823,598,491
percent portfolio		4%	4%	4%	4%		4%	4%
<b>Community Choice Scenario II</b>								
<b>renewable load capacity</b>	<b>40%</b>	263	72	406	158	0	42	940
renewable portfolio	kwh	460,892,265	125,727,048	710,689,962	276,844,937	0	73,042,769	1,647,196,982
percent portfolio		8%	8%	8%	8%		8%	8%
<b>Community Choice Scenario III</b>								
<b>renewable kwh portfolio</b>	<b>20%</b>	1,149,600,000	313,600,000	1,772,668,455	690,532,178	0	182,190,012	4,108,590,645
% of statewide IOU generation		0.62%	0.17%	0.96%	0.37%	0.00%	0.10%	2.21%
<b>Community Choice Scenario IV</b>								
<b>renewable kwh portfolio</b>	<b>40%</b>	2,299,200,000	627,200,000	3,545,336,909	1,381,064,355	0	364,380,025	8,217,181,289
% of statewide IOU generation		1.24%	0.34%	1.91%	0.74%	0.00%	0.20%	4.43%
<b>residential customers</b>		312,258	99,628	2,956,616	507,929	1,013,799	126,607	11,281,495
percent of region total		91%	88%	89%	90%	89%	90%	87%
residential consumption	kwh	1,481,000,000	734,000,000	18,342,000,000	3,066,000,000	6,041,000,000	984,000,000	79,856,000,000
percent of region		26%	47%	29%	29%	34%	32%	32%
<b>business customers</b>		31,862	13,489	356,167	53,839	125,969	14,023	1,647,220
percent of region total		9%	12%	11%	10%	11%	10%	13%
business consumption	kwh	4,267,000,000	834,000,000	45,577,000,000	7,539,000,000	11,700,000,000	2,088,000,000	170,454,000,000
percent of region		74%	53%	71%	71%	66%	68%	68%
<b>total customers</b>		344,120	113,117	3,312,783	561,768	1,139,768	140,630	12,928,715
consumption	kwh	5,748,000,000	1,568,000,000	63,919,000,000	10,605,000,000	17,741,000,000	3,071,000,000	250,310,000,000
percent of state		2%	1%	26%	4%	7%	1%	100%
<b>Community Choice customers</b>	est	344,120	113,117	459,368	182,894	0	41,715	1,141,214
Community Choice share	est kwh	5,748,000,000	1,568,000,000	8,863,342,273	3,452,660,888	0	910,950,062	20,542,953,223
percent of region total		100%	100%	13.9%	32.6%	0.0%	29.7%	8.2%
percent of private and IOUs	(8)							11.1%

NOTE: Projections assume Community Choice population profile matches approximately the county profile. Data is for 2000.

(1) source: electricity data from California Energy Commission, California Electricity Deliveries by County in 2000

(2) average load is consumption in kwh divided by the number of hours in a year (8760) to get kilowatt load, then divide by 1000 to get megawatt load, based on formula by California Energy Commission, California Energy Facts, updated December, 2002

(3) population figures for 2000 California Department of Finance, Demographic Research Unit: Table 1: E-4 Population Estimates for Cities, Counties and the State, 2001-2003, with 2000 DRU Benchmark  
download at: <http://www.dof.ca.gov/html/Demograp/HistE-4.htm>

(4) Community choice data from UTILITIES COMMISSION DOCKET R.04-01-025, March 23, 2004, Paul Fenn, AM, Local Power, p. 31, with data from source from footnote (3).

(5) data is sum of 400,000 customers in Southern California Cities Joint Powers Consortium, and the cities of Torrance and Beverly Hills. 400,000 population is assumed to represent 1,150,000 population, based on the countywide ratio of customers to population of 2.87 to 1

(6) San Diego is only in preliminary stages, with a population in 2000 of ..... 1,223,400

(7) Community Choice data based on proportion of population in county, and matching it to the county profile.

(8) data for private and investor owned electric utilities in California in 2000:

	# Accounts	MWh	# Accounts	MWh	# Accounts	MWh
	Residential		Non Residential		Total	
<b>total</b>	<b>9,123,361</b>	<b>63,218,096</b>	<b>1,239,843</b>	<b>122,390,788</b>	<b>10,363,205</b>	<b>185,608,886</b>

ANALYSIS OF ERROR: error is expected to be attributable only to population profile for electrical consumption not exactly matching between the community choice population and the county in which it is located. No error is expected for Marin Co and San Francisco Co, where the two populations coincide, and these represent one third of the total modeled Community Choice population.

This error can be estimated by looking at the variation in customer population and type versus consumption throughout the state for counties that consume more than 1 billion kwh, which is a minimum size for aggregation. Standard deviation is 14.8% from the mean for average customer kwh consumption. This variation may be assumed for those populations that are less than a whole county, leaving about 10% error for whole community choice population consumption figures.

While no final data exists, total consumption levels for the state are projected by CEC to closely match the 2000 profile during the years 2003 to 2004. Source: California Energy Demand 2003-2013 Forecast,