

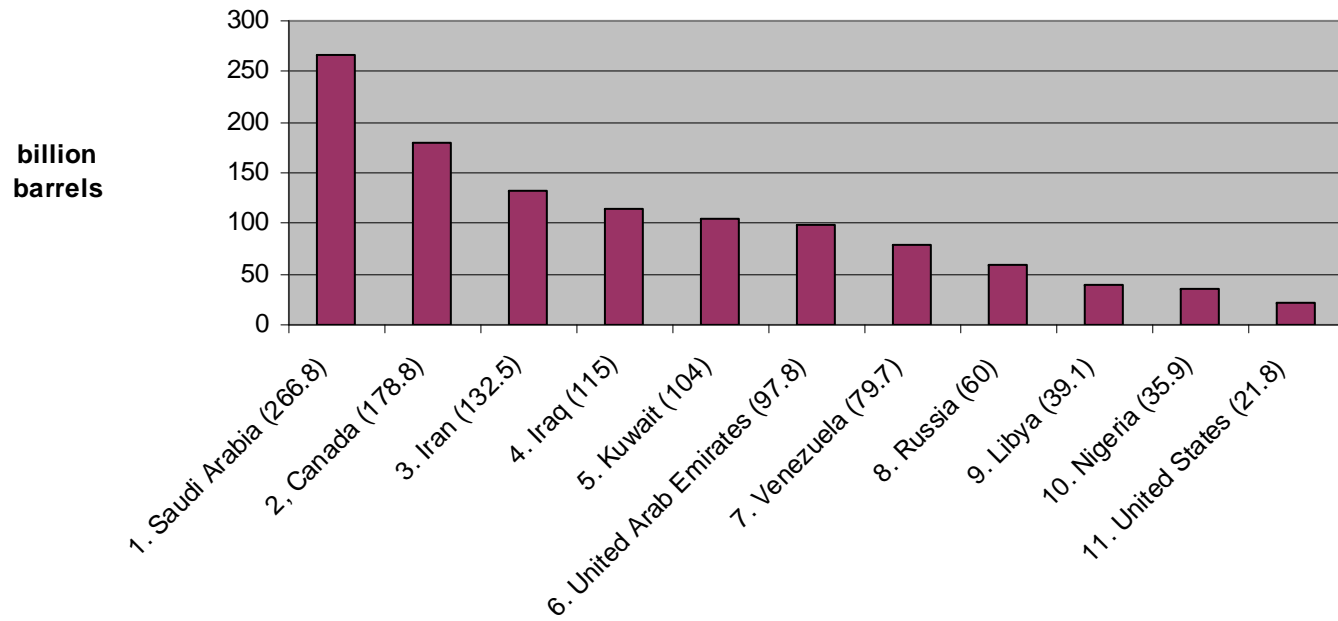
ENERGY PROFILES

	<i>Consumption (2005)</i>	<i>Production (2005)</i>	<i>Est. Reserves (as of 2006)</i>
<i>Petroleum</i>	<i>83.6 million barrels/day</i>	<i>84.6 million barrels/day</i>	<i>1.1 trillion barrels</i>
<i>Natural Gas</i>	<i>103.7 billion feet³</i>	<i>101.5 trillion feet³</i>	<i>6,226.5 trillion feet³</i>
<i>Coal</i>	<i>6,489 million short tons</i>	<i>6,483 million short tons</i>	<i>997.7 trillion short tons</i>
Electricity			
<i>Total Electricity</i>		<i>17,250.6 billion kilowatt/hours</i>	
<i>(Conventional)</i>		<i>11,455.3 billion kilowatt/hours</i>	
<i>(Hydroelectric)</i>		<i>2,900 billion kilowatt/hours</i>	
<i>(Nuclear Electric)</i>		<i>2,625.6 billion kilowatt/hours</i>	
<i>(Geothermal, Wind, Solar, Wood and Waste)</i>		<i>369.7 billion kilowatt/hours</i>	

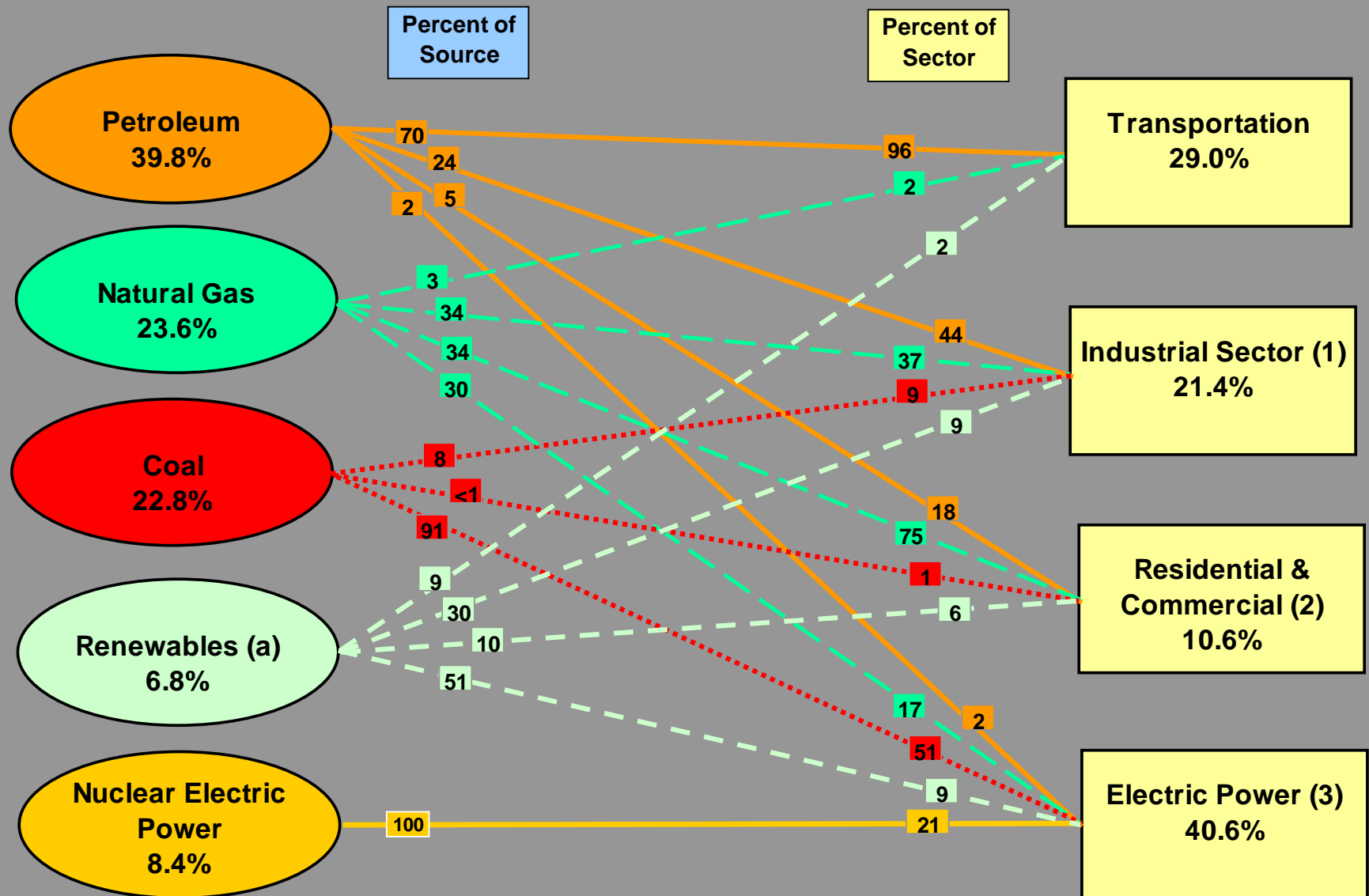
Nation

- In 2006, the U.S. ranked as the world's
 - 3rd in oil production
 - 1st in oil consumption
 - 11th in proven petroleum reserves
- In 2005, the U.S. ranked as the world's
 - 2nd in natural gas production
 - 1st in production & consumption of electricity
 - 2nd in net hydroelectric power generation
 - 1st in net nuclear electric power generation
 - 1st in net geothermal, solar, wind, wood/waste electric power generation
 - 2nd in coal production & consumption

World's Largest Proven Petroleum Reserves



U.S. Primary Energy Consumption by Source and Sector, 2007

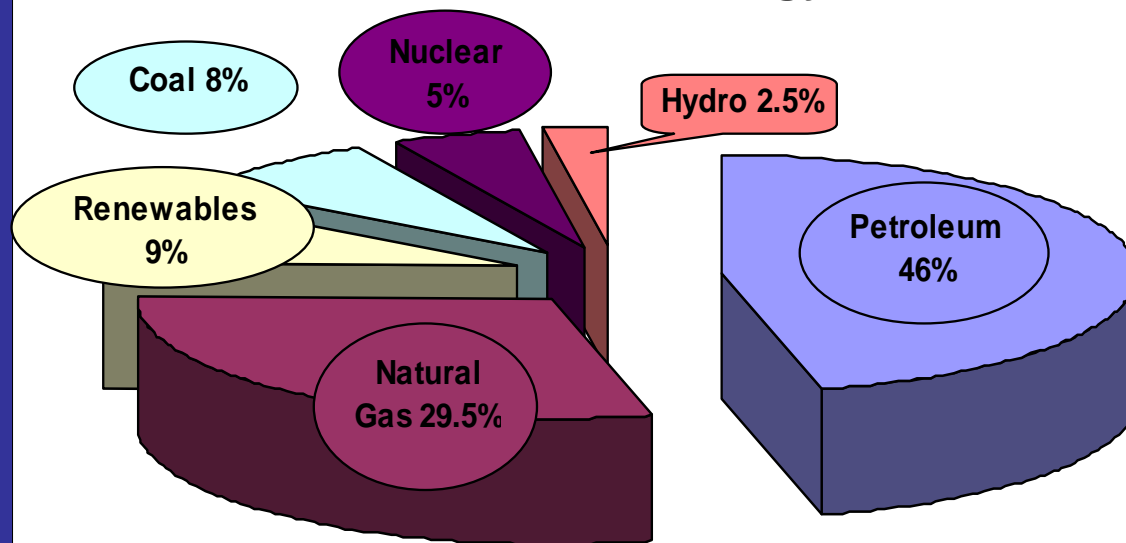


a. Conventional hydroelectric power, geothermal, solar/PV, wind, & biomass.
 Note: Sum of components may not equal 100 percent due to independent rounding.
 Source: Energy Information Administration website.

California

- In 2007, California represented
 - 12.6% of the nation's population
 - 12.6% of the nation's workforce
 - 13% of the nation's Gross Domestic Production
- Transportation Sector = largest energy consumption
 - 11.3% of nation's motor gasoline

California's Energy Sources- 2006



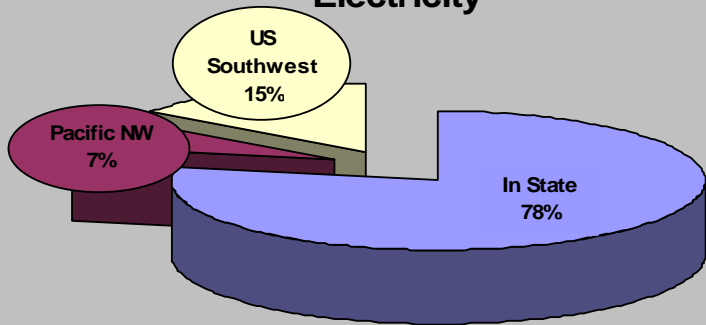
California Energy
Commission,
2007 Integrated
Energy Policy
Report

California's Electricity Mix in 2006

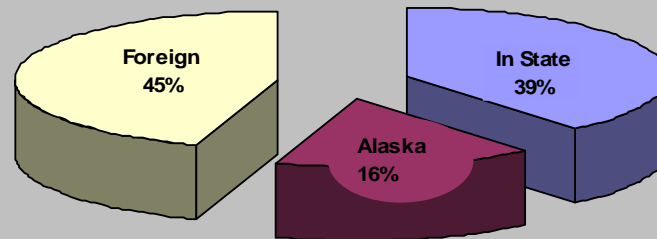
Mix	Natural Gas	Large Hydro	Coal	Nuclear	Geothermal	Biomass	Small Hydro	Wind	Solar
	41.5%	19%	15.7%	12.9%	4.7%	2.1%	2.1%	1.8%	0.2%
In-state	88%	77%	62%	84%	99%	92%	93%	92%	100%
Imported	12%	23%	38%	16%	1%	8%	7%	8%	0%

California's Sources of Energy - 2006

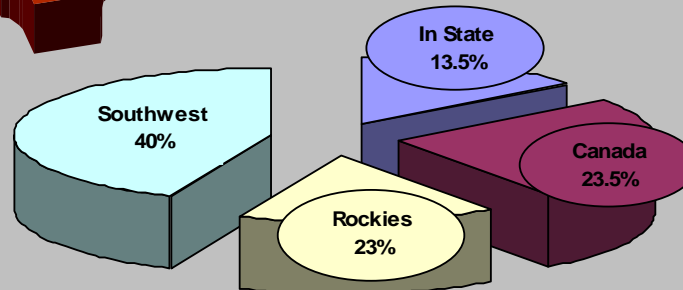
Electricity



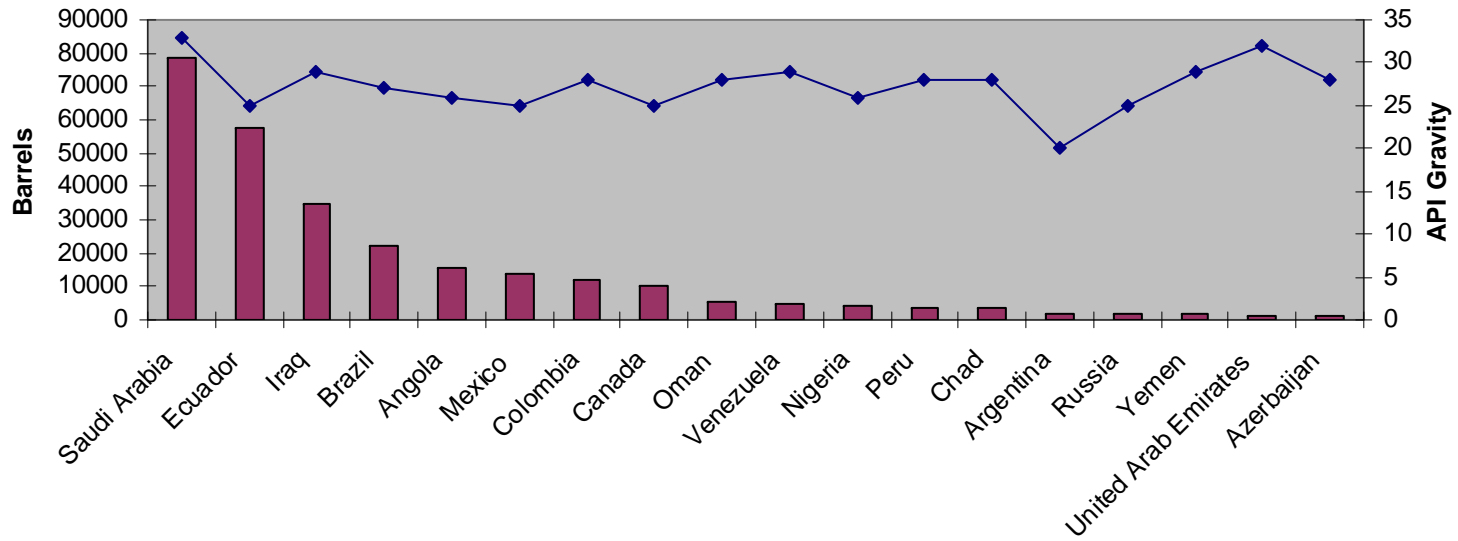
Crude Oil



Natural Gas



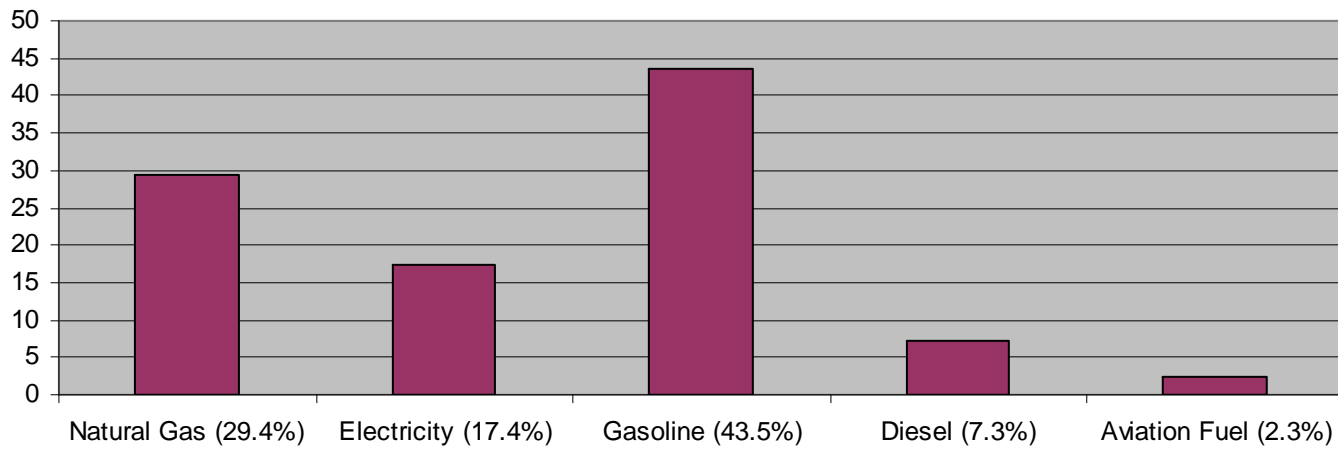
California Refinery Crude Oil Imports in 2007 by Exporting Country



Santa Barbara County

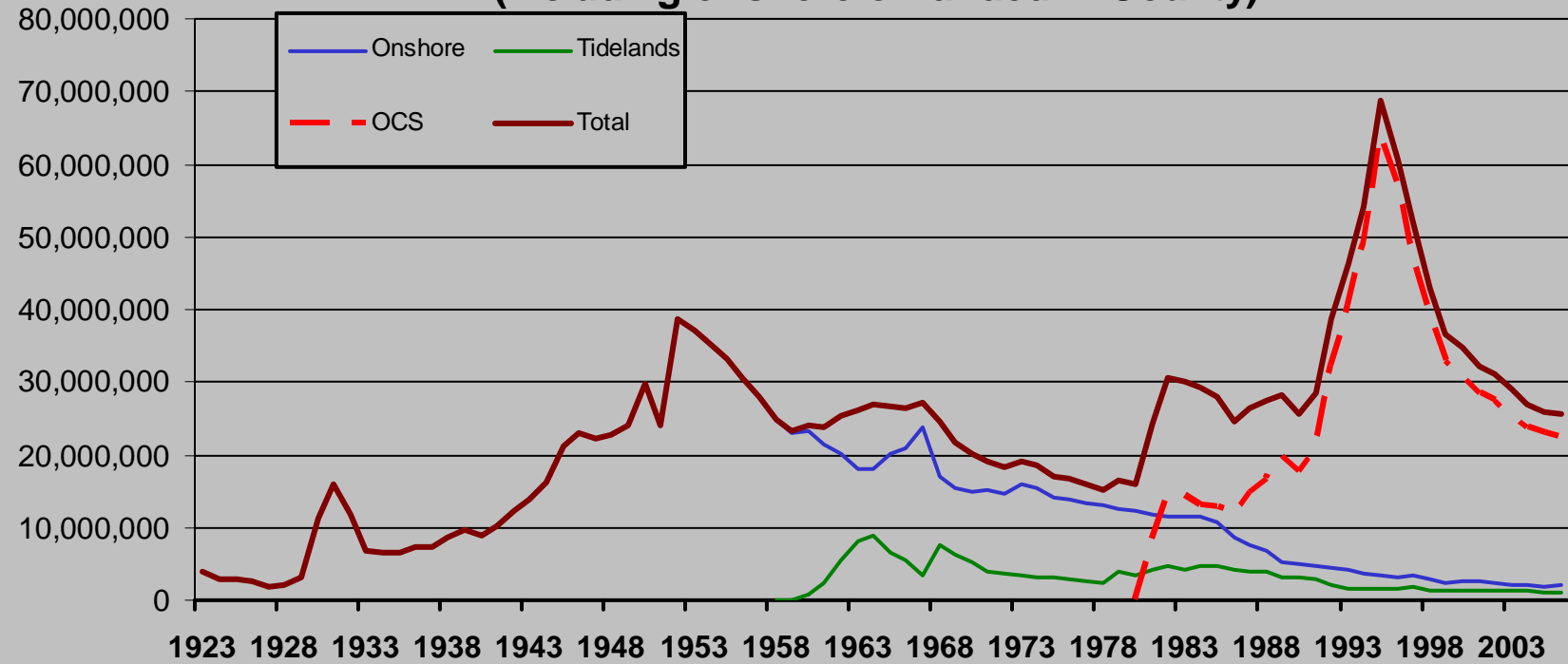
- In 2007
 - 1.13% of California's population
 - 1.1% of California's work force
 - 1.25% of California's GDP

Santa Barbara County Energy Consumption in 2005
(total of 15,461 gigawatt hours)



Historic Oil Production by Year in Santa Barbara County (including offshore oil landed in County)

Barrels

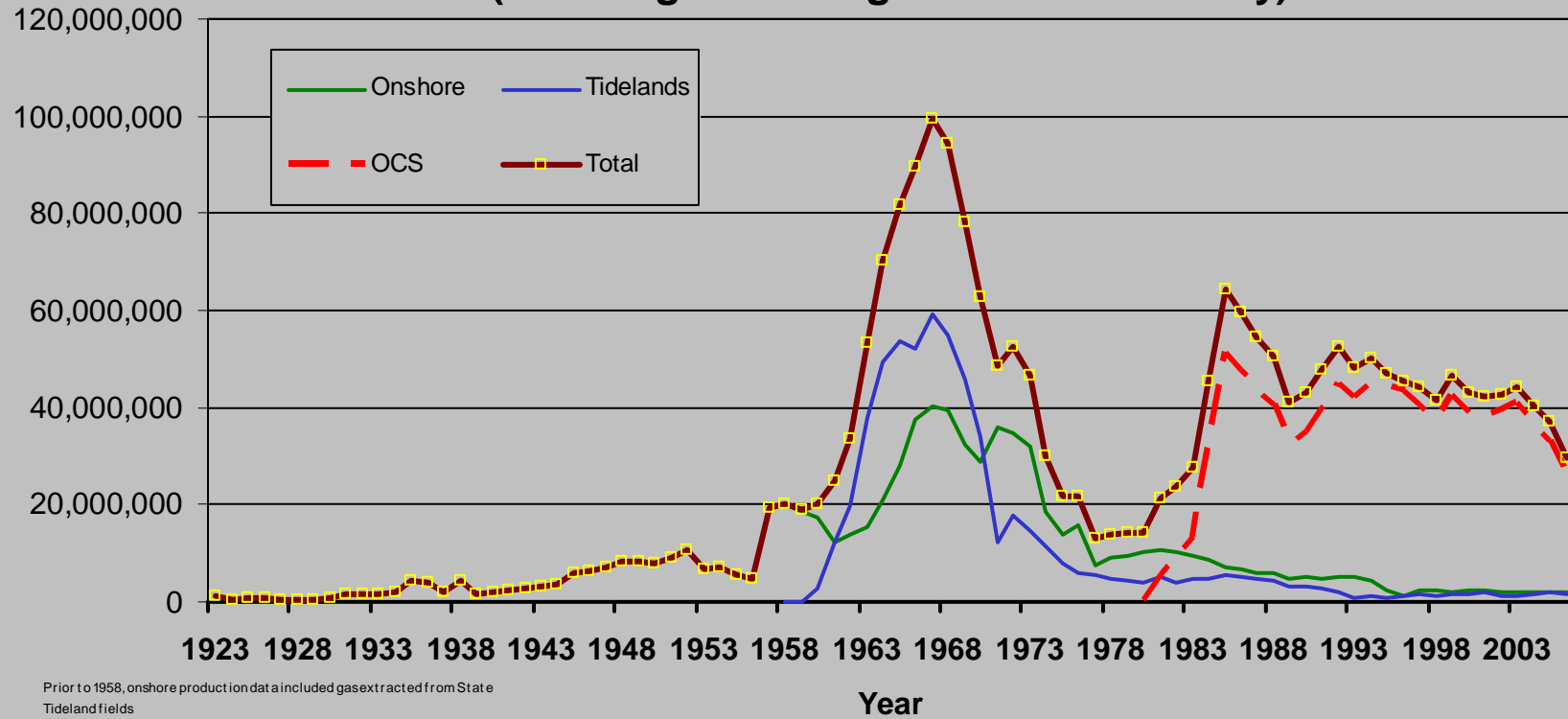


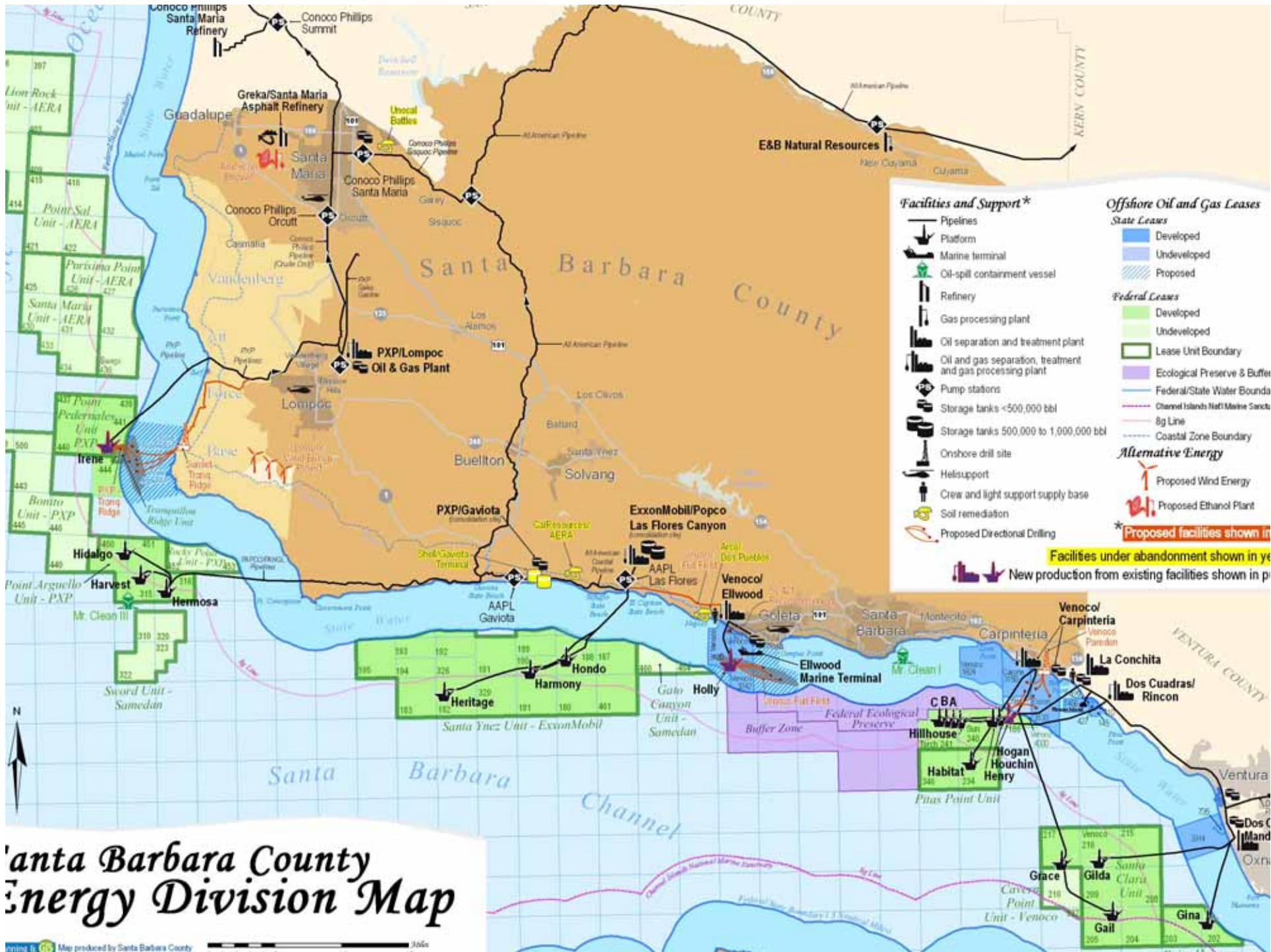
Prior to 1958, onshore production data included oil extracted from State Tideland fields

Year

Historic Gas Production by Year in Santa Barbara County (including offshore gas landed in County)

Thousand Cubic Feet





Santa Barbara County Energy Division Map

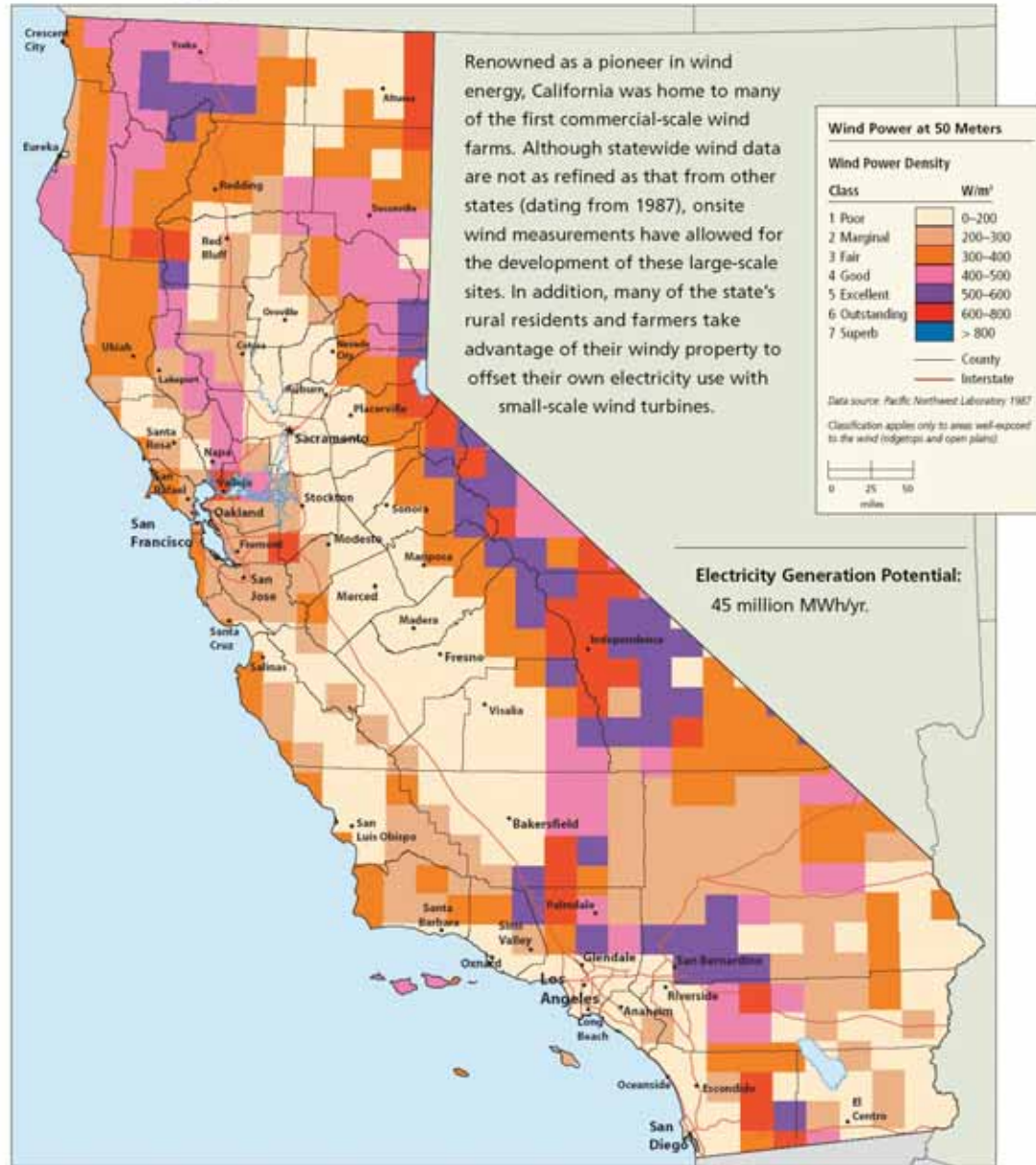
Offshore Reserves

	State Oil	OCS Oil	State Gas	OCS Gas
Producing Leases	13.2 million	393.9 million	13.9 billion	978.9 billion
Non-producing Leases	187.4 million	1.1 billion	189 billion	448 billion
Unleased Lands	961 million		250.8 billion	

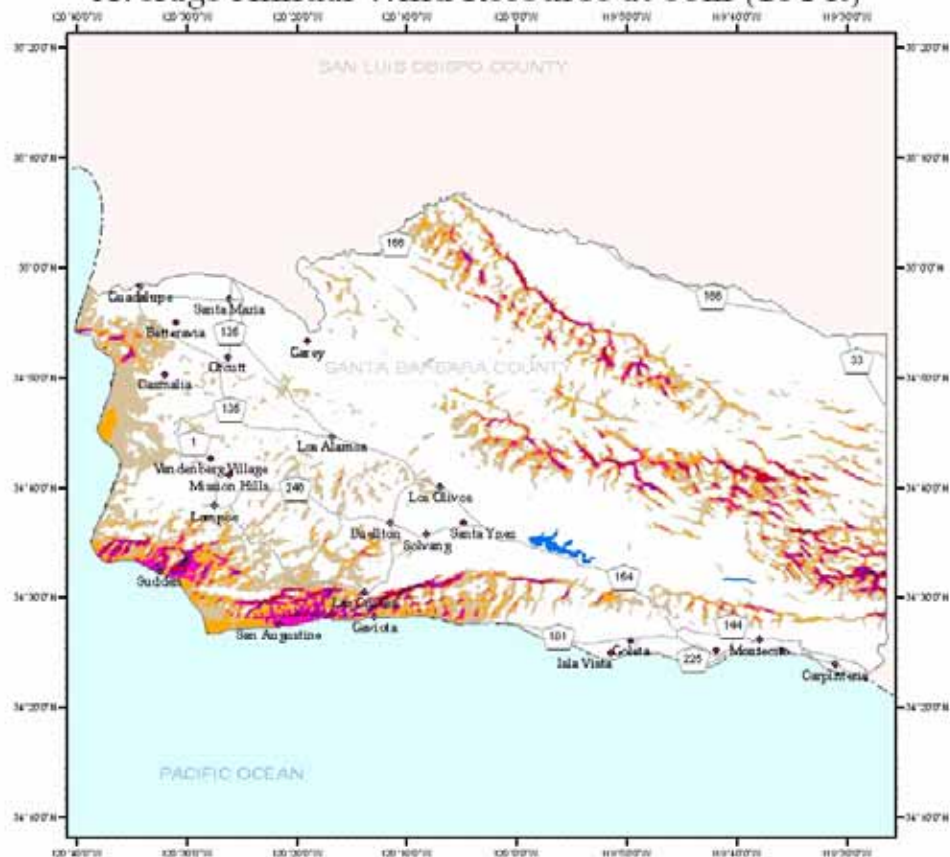
Revenue Sharing

- State Leases
 - < \$2 million between FY 80/81 & 06/07
- Federal Leases
 - < \$16 million (Section 8(g))
 - > \$3.5 million (CIAP)

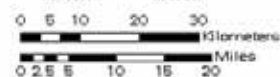
Wind



Santa Barbara County Average Annual Wind Resource at 50m (164 ft)



Wind Classifications		
wind class	wind speed [m/s]	wind speed [mph]
1 Poor	0.0 - 5.6	0.0 - 12.5
2 Marginal	5.6 - 6.4	12.5 - 14.3
3 Fair	6.4 - 7.0	14.3 - 15.7
4 Good	7.0 - 7.6	15.7 - 16.8
5 Excellent	7.6 - 8.0	16.8 - 17.9
6 Outstanding	8.0 - 8.8	17.9 - 19.7
7 Superb	> 8.8	> 19.7



Legend

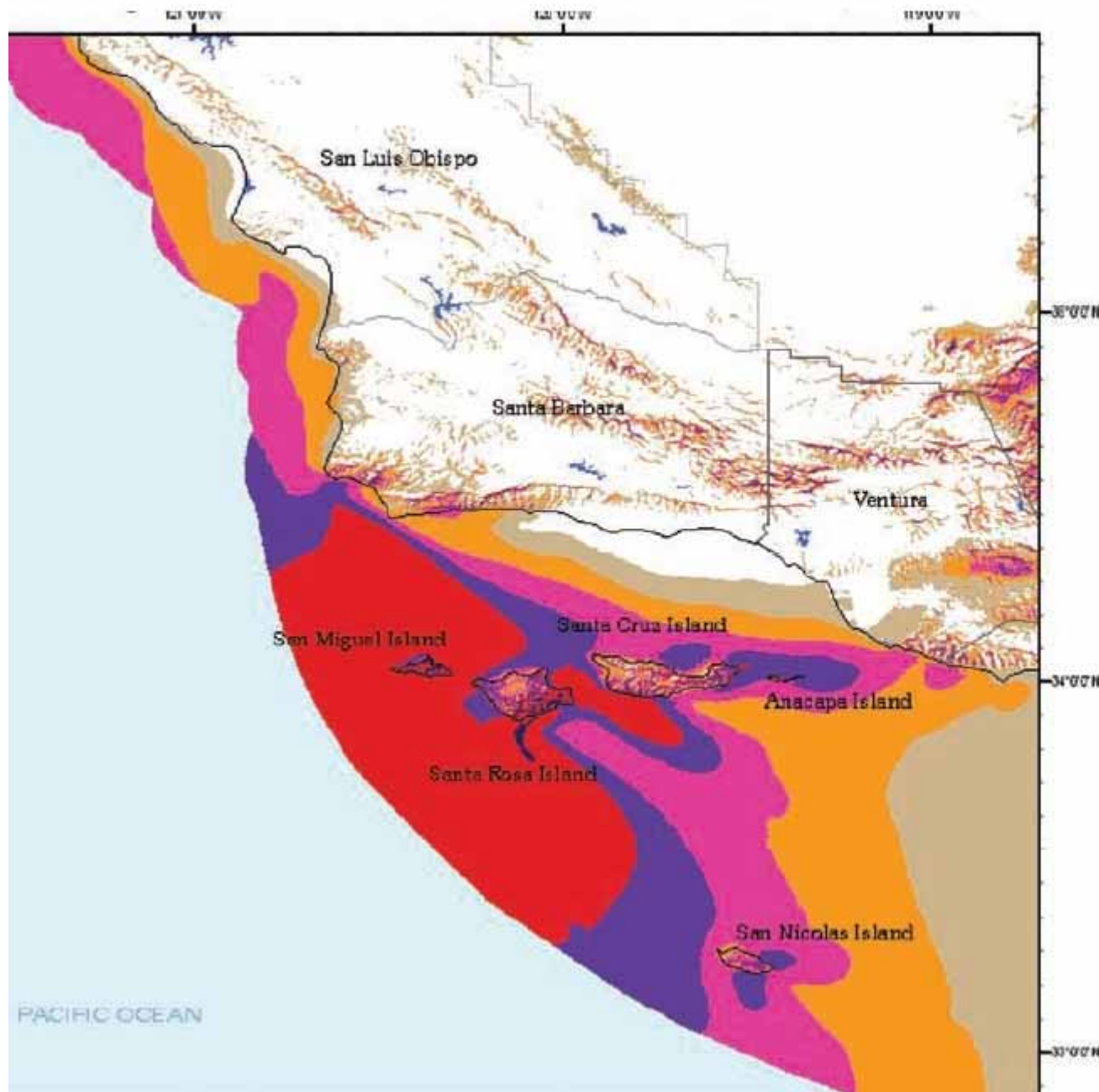
- Major Water Bodies
- Cities and Towns
- Major Roads
- County Boundary
- State Boundary



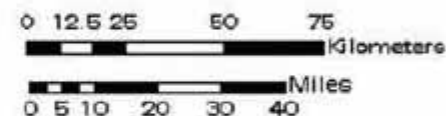
Created by: Daniel Prull
prull@rre.berkeley.edu
Created on: 3/26/09
Renewable and Appropriate Energy Lab
<http://rael.berkeley.edu>

Tri-County Area

Average Annual Wind resource at 50 m (164 ft)



Wind Classifications		
wind class	wind speed [m/s]	wind sp.
1 Poor	0.0 - 5.6	0.0
2 Marginal	5.6 - 6.4	12.5
3 Fair	6.4 - 7.0	14.3
4 Good	7.0 - 7.5	15.7
5 Excellent	7.5 - 8.0	16.8
6 Outstanding	8.0 - 8.8	17.9
7 Superb	> 8.8	> 1



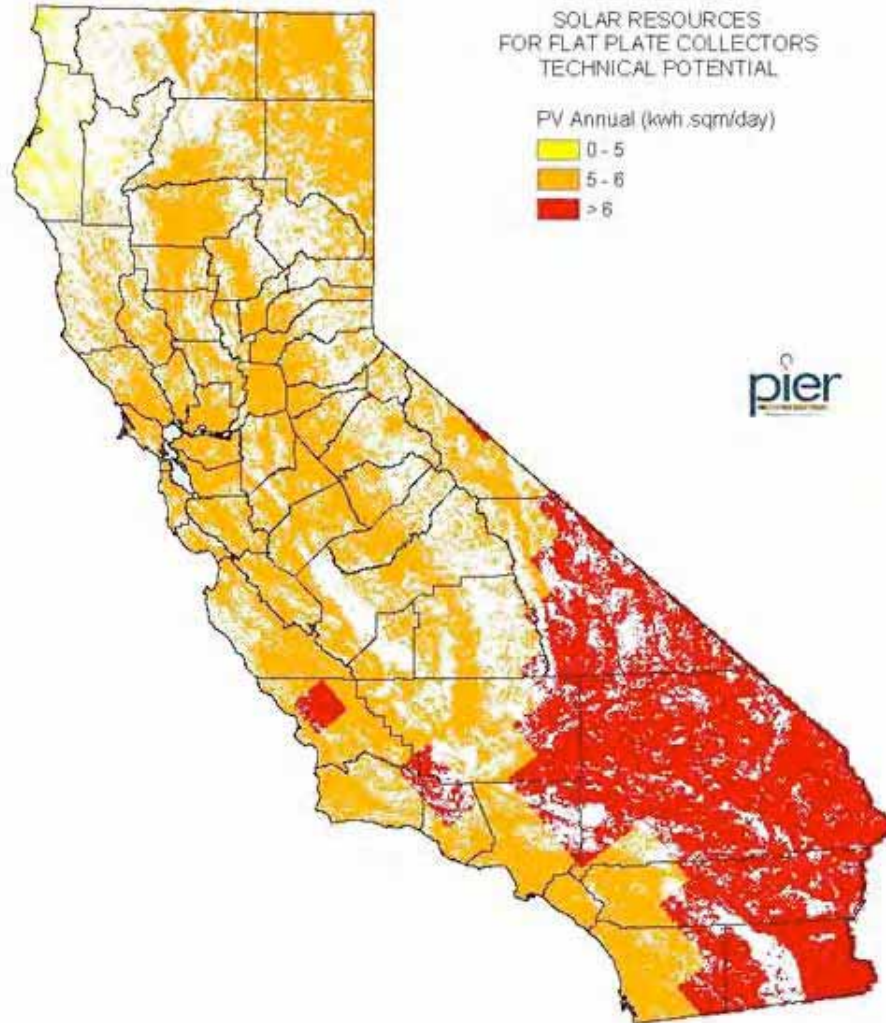
Created by: Daniel Prull
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Legend

- Major Water Bodies
- County Boundaries
- State Boundary

SOLAR RESOURCES
FOR FLAT PLATE COLLECTORS
TECHNICAL POTENTIAL

PV Annual (kwh.sqm/day)



pier