



Climate Change Performance and Policy: San Diego versus Los Angeles

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The carbon footprint of the average San Diegan -- including residential energy use and transportation -- is larger than that of the average Los Angeles resident.

From 2000 to 2005, San Diego's carbon emissions in these two areas increased at 10 times the rate of increase in Los Angeles, according to a national study by the Brookings Institute. In fact, San Diego lags behind Los Angeles in significant indicators of climate impact, primarily in vehicle miles traveled per capita and use of renewable sources of energy.

In recent years, Los Angeles has become a world leader in policy innovation to reduce energy use and fight climate change.

This policy brief is the first in a series outlining the policy innovation and leadership shown at a regional level in San Diego and Los Angeles, and comparing key performance indicators in the area of climate change.

KEY PERFORMANCE INDICATORS

In 2006, per-capita carbon dioxide equivalent emissions for the San Diego region were [12 metric tons](#), which is slightly lower than California as a whole (13 metric tons). This includes industrial and commercial energy use as well as residential. According to a [University of San Diego study](#), transportation by car and truck is the largest contributor of greenhouse gas emissions in the region, accounting for 46% of the total, followed by electricity use (25%).

According to the Brookings Institute [Blueprint for American Prosperity](#), the San Diego metropolitan area emitted 1.63 metric tons of carbon per capita from transportation and residential energy use in 2005, compared to 1.41 metric tons per capita in Los Angeles. From 2000 to 2005, the San Diego in emissions increased 3.6%, 10 times the rate of increase in Los Angeles (0.35%).

Table 1 enumerates some annual indicators on two of the largest sources of greenhouse gas emissions, on-road transportation and electricity.

Table 1. Indicators on two largest emission sources

Source of Emission	Regional/local variables	San Diego	Los Angeles	Benchmark
On-Road Transportation	Highway emissions per capita	1.270 metric tons	1.022 metric tons	1.310 metric tons (US metro)
	Vehicle Miles Traveled per capita	9,463 miles	7,672 miles	9,079 miles (US metro)
	% Workers taking mass transit to work	3.3%	7.0%	4.8% (US)
Electricity	Renewable Portfolio Standard*	5.2% (SDG&E)	8.5% (LADWP)	12.7% (CA average)
	Residential energy emissions per capita	0.360 metric tons	0.391 metric tons	0.925 metric tons (US metro)**
	Solar electric capacity per customer (consumer-side)	19.9W (SDG&E)	7.0W (LADWP)	86.0W (Southern California Edison)

Sources: [Blueprint for American Prosperity](#), Brookings Institute; [Renewable Portfolio Standard](#): California Energy Commission; Los Angeles Department of Water and Power; [Solar Electric Power Association's \(SEPA\) "Top Ten Utility Solar Integration Rankings"](#) based on 2007 survey; American Community Survey 2007, U.S. Census Bureau.

* Renewable Portfolio Standard target is 20% of energy to come from renewable sources by 2010. Los Angeles has a municipal utility that is not subject to state renewable portfolio standards, but has adopted the same standards on its own. SDG&E has said in regulatory filings with the Securities and Exchange Commission that it will likely fall short of the state mandate.

** Average emissions from residential energy use are higher because of greater heating needs in other parts of the nation.

POLICY INNOVATION

Implementation of policies related to climate change creates economic opportunities for the region, as well as demonstrates leadership in addressing the human impacts on the environment. Regional leadership consists of a combination of cities, county, utility, regional metropolitan planning and transit entities.

Table 2 gives a comparative framework of key policies adopted by the cities of San Diego and Los Angeles.

Table 2: Comparison of green policies in the two major cities

	City of Los Angeles	City of San Diego
Energy	<ul style="list-style-type: none"> Loans and rebates for businesses and low-income residents since 1999 expanded. Goal of 1.3 gigawatts solar power by 2020 (Solar LA) City policy to install 400 MW of solar on City-owned properties by 2014. All streetlights will be replaced with LED (light-emitting diode) units. 	<ul style="list-style-type: none"> Residential solar financing program that allows homeowners to borrow for 20 years against liens to their property. (Clean Generation) Loans to small businesses for energy-efficiency upgrades.
Green Building	<ul style="list-style-type: none"> LEED certification required for all major city-funded new construction. Retrofit of all city-owned buildings over 7,500 sf or built before 1978 to achieve LEED Silver designation. All large new construction projects must be LEED certified. Expedite policy for private LEED Silver projects. Community Redevelopment Agency (CRA) requires Any Project over 50,000 square feet or over 50 Units and receiving CRA Funding to be LEED Silver Certified 	<ul style="list-style-type: none"> New and remodeled city-owned buildings must be LEED Silver certified. Expedite policy for commercial and residential development that meets sustainability criteria.
Miscellaneous	<ul style="list-style-type: none"> Academic-business-government CleanTECH alliance. Certified Green Business program to inform consumers on which businesses are “green”. Clean truck program requires all trucks at the port to have air pollutants regulated. Green alleys program to reduce urban runoff. Public-private partnership to plant a million trees in the city. 	<ul style="list-style-type: none"> Academic-business-government CleanTECH alliance. Business incentives program that includes fee waivers and streamlined permitting for clean-tech industries.

This framework demonstrates an approach in San Diego based exclusively on voluntary incentives, compared to a combination of policies in Los Angeles using incentives, standards, and public investments.

Future CPI policy briefs will evaluate performance indicators and policies enacted by other agencies in the two metropolitan regions.