

# California's Rise In Solar And Wind Electricity

**Jude Clemente, Forbes News, 8-6-16**

I've documented here how California is a natural gas state. Yet, not the panacea some like to claim, the rise in wind and solar power in the state is also quite an achievement (see the Figure on page 2). For many years, I've relentlessly described how oil, coal, and natural gas have enhanced our lives - more people, living longer, living better - but the reality is that we must support ALL energy sources: each one has pros and cons. Again, a rising 85% of the global population lives in undeveloped nations, where energy deprivation kills.

In the years ahead, wind and solar will continue to win the renewable race, largely because new locations to install more hydro power in the U.S. especially are limited. In fact, California's total hydro power has fallen nearly 70% since 2011 (here). California's boom in solar is more powerful and more unique than meets the eye: 80% of the capacity additions in the country to meet Renewable Portfolio Standards are based on more wind.

And although California does have more sunshine than other states, The Golden State is actually not even in the top 5 sunniest states (here). California produces about 6% of U.S. wind power, but 50% of the solar power. California also confronts less of a NIMBY problem than others: nearly 80% of Californians support using their vast deserts for renewable power development.

But importantly, despite this great rise in wind and solar, since 2003, when California implemented its first RPS, natural gas has actually INCREASED its share of the state's power generation from 47% to over 60% last year. This is a clear sign to environmentalists and the wind and solar community that gas actually supports renewable growth because it supplies the more reliable backup for their intermittency. As for the oil and gas companies, you should have entire divisions on how more renewables like wind and solar is enabled by more natural gas.

Although we will need ALL energy sources to grow our economy, lower emissions, and enhance energy security, I've unfortunately come to know that many in the environmental and renewable community are much more anti-coal, anti-oil, anti-gas, and anti-nuclear than they are pro-environment.

Not only unwise, impractical, and unfair, this "anti-everything else" insistence can only block more economic growth and human development: coal has been the basis of the U.S. and global power systems since their inception, oil is the world's most vital energy source with no significant substitute, gas is cleaner and the fastest growing major energy source, and nuclear is a non-carbon energy source that is critical to meeting environmental goals.