



A Million Solar Roofs and Beyond

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The Million Solar Roofs Initiative



- Signed into law by Governor Schwarzenegger in 2006
- 10-year, \$3.3 billion program, began January 1, 2007

3 Goals:

1. Drive the **installation of 3,000 megawatts (MW)** of rooftop solar power by the end of 2016
2. **Reduce the price** of solar power
3. **Create a vibrant, sustainable solar industry** in California for the long term



Is the Million Solar Roofs Initiative working?



Goal 1: Drive the installation of 3,000 megawatts (MW) of solar power by the end of 2016.

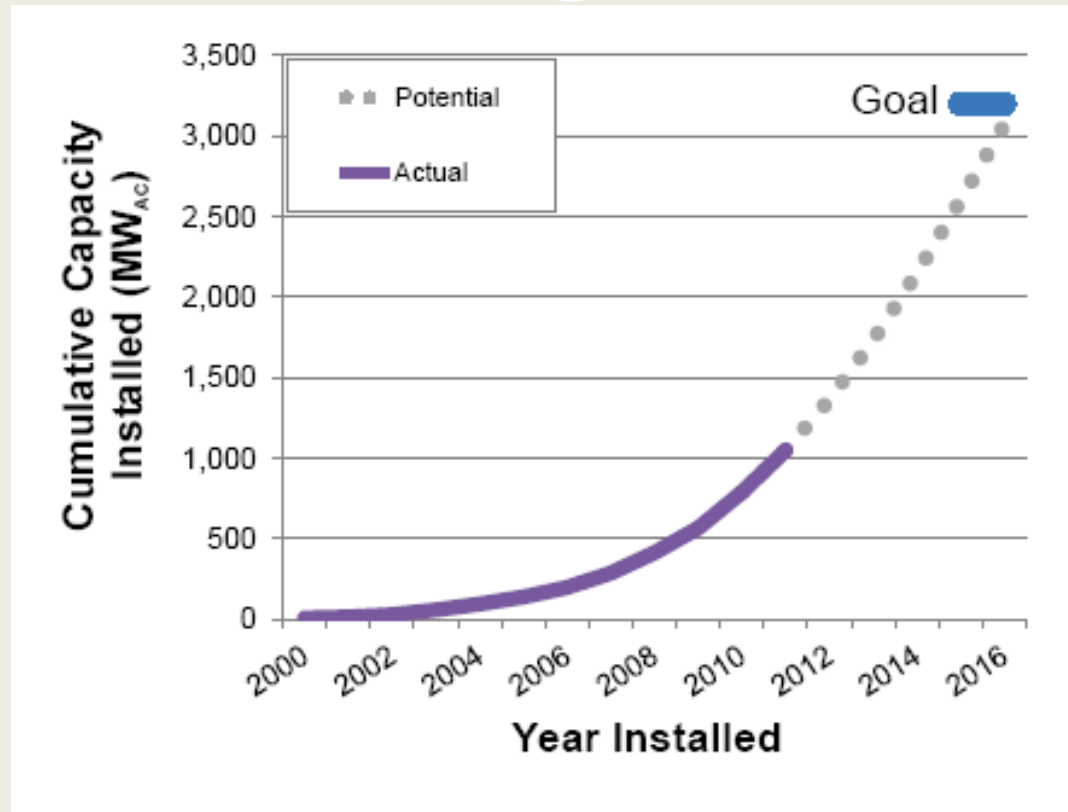
California has installed more than 1 gigawatt (GW) of rooftop solar power, largely due to the Million Solar Roofs Initiative, and is on pace to meet the overall goal installation on schedule.

What is a gigawatt?

1 GW = equivalent energy to power 750,000 homes

1 GW = the equivalent of 2 large coal-fired power plants

California's solar market has been expanding exponentially by about 40% per year.



Actual (through 2011) and Potential (through 2016) Solar Installations in California

Is the Million Solar Roofs Initiative working?



Goal 2: Reduce the price of solar power



Commercial prices have dropped by over 40%.

Is the Million Solar Roofs Initiative working?



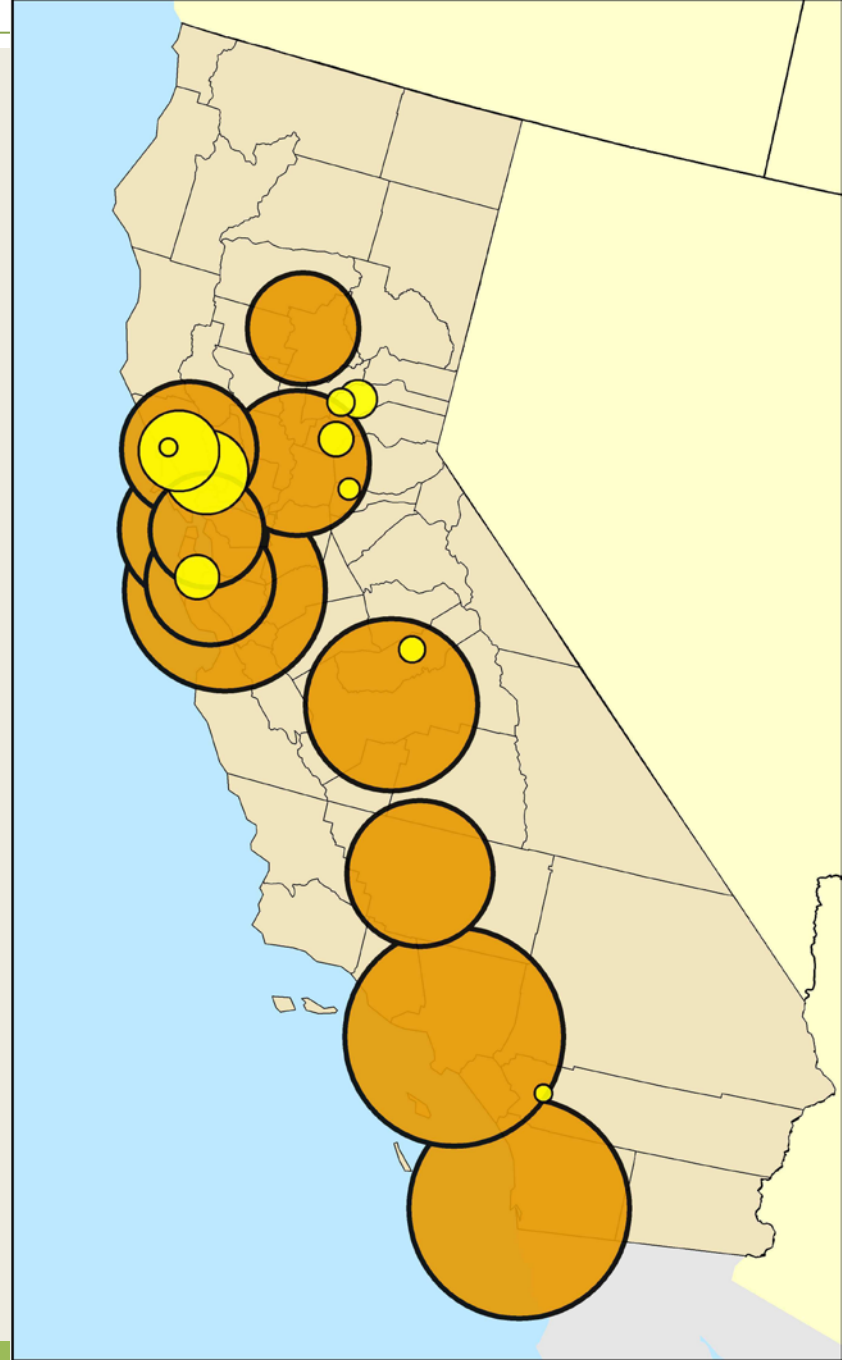
Goal 3: Create a vibrant, sustainable solar industry in California for the long term

- The industry has roughly doubled in size since 2007.
- California is now home to about 20% of all solar power companies – **more than 3,500 companies.**
- California's solar industry employs more than 25,000 people, making the state **the nation's solar leader.**

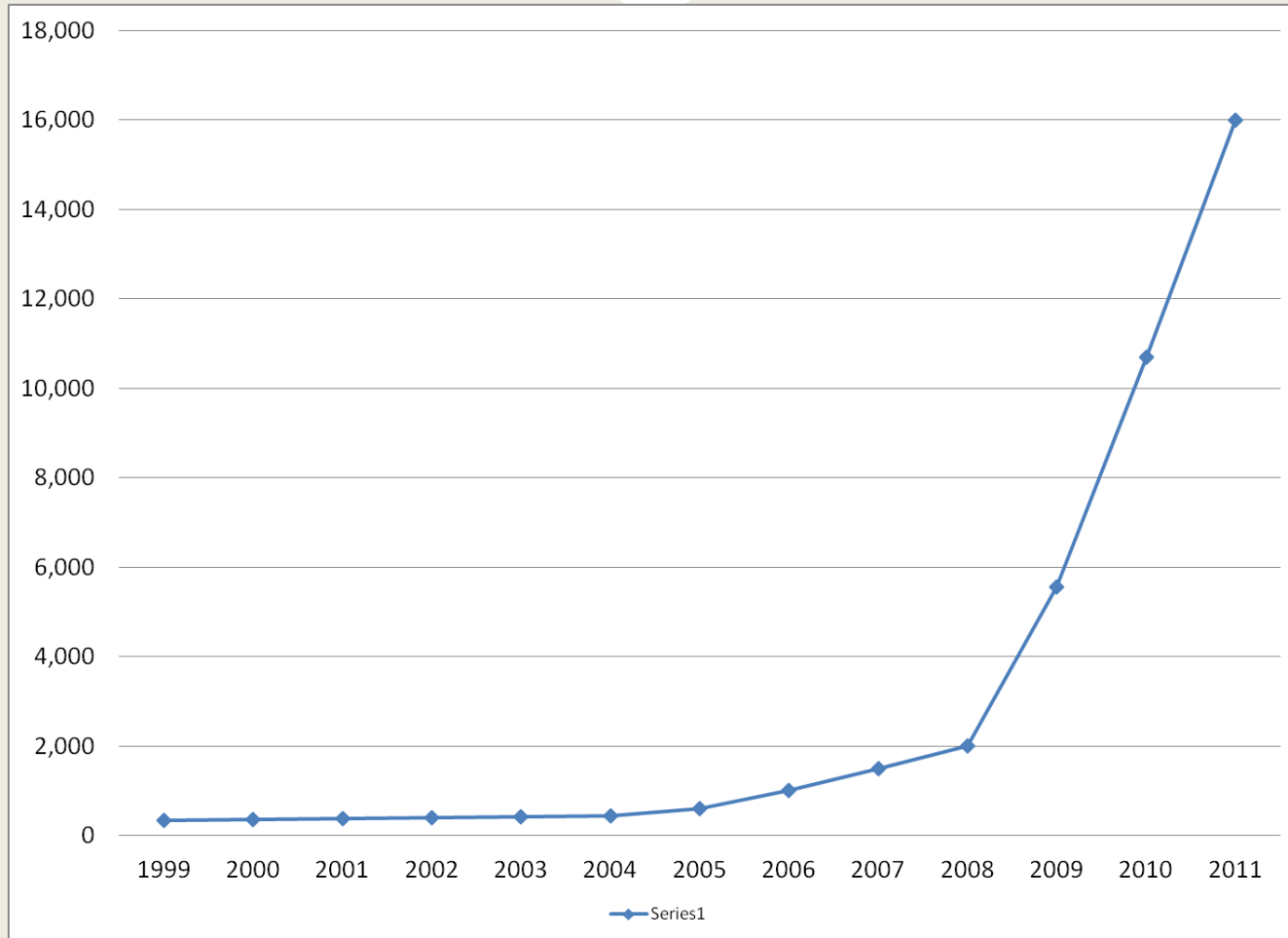


California's Top 10 Solar Cities – Diverse, Growing

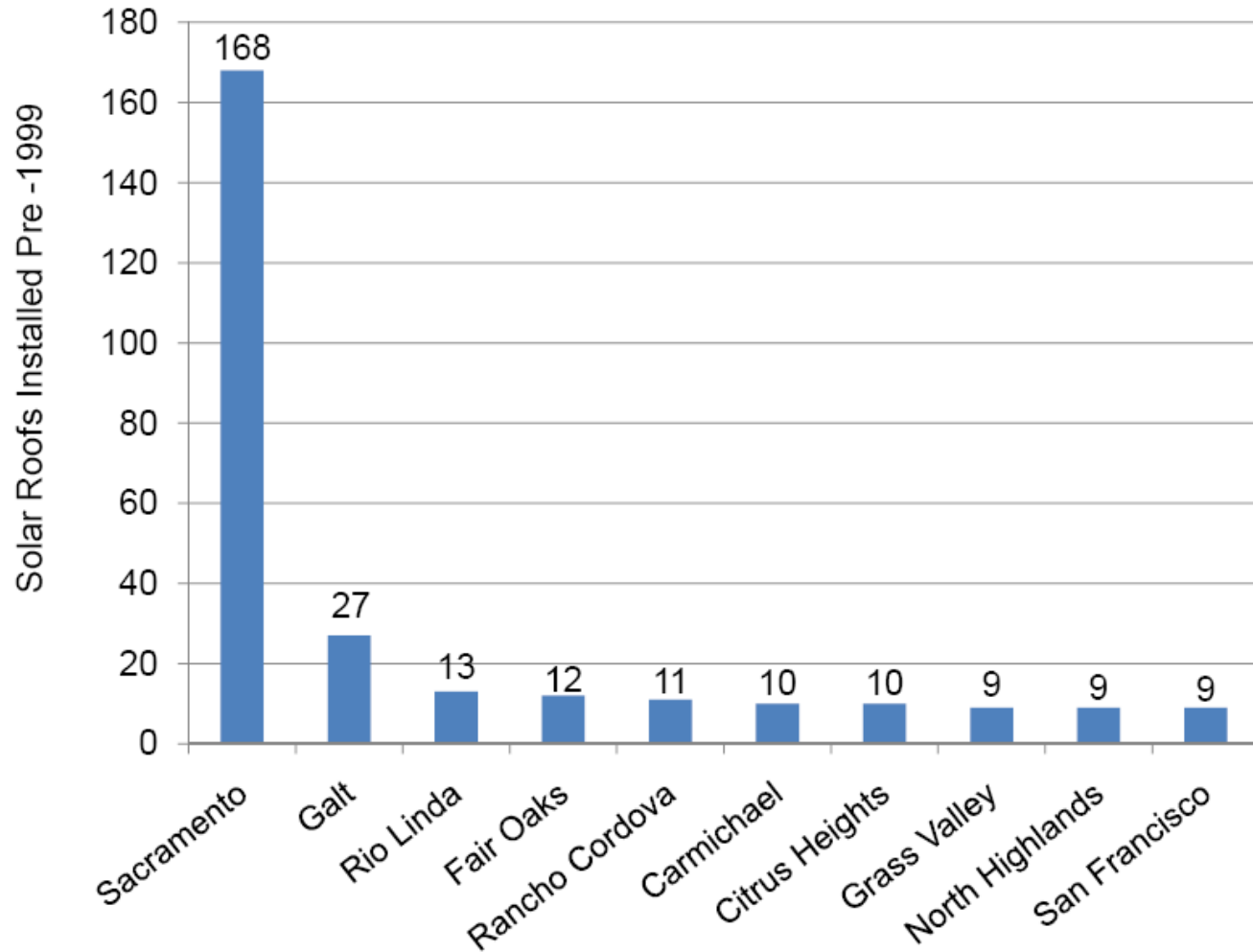
- **Orange** = by capacity
- **Yellow** = per capita



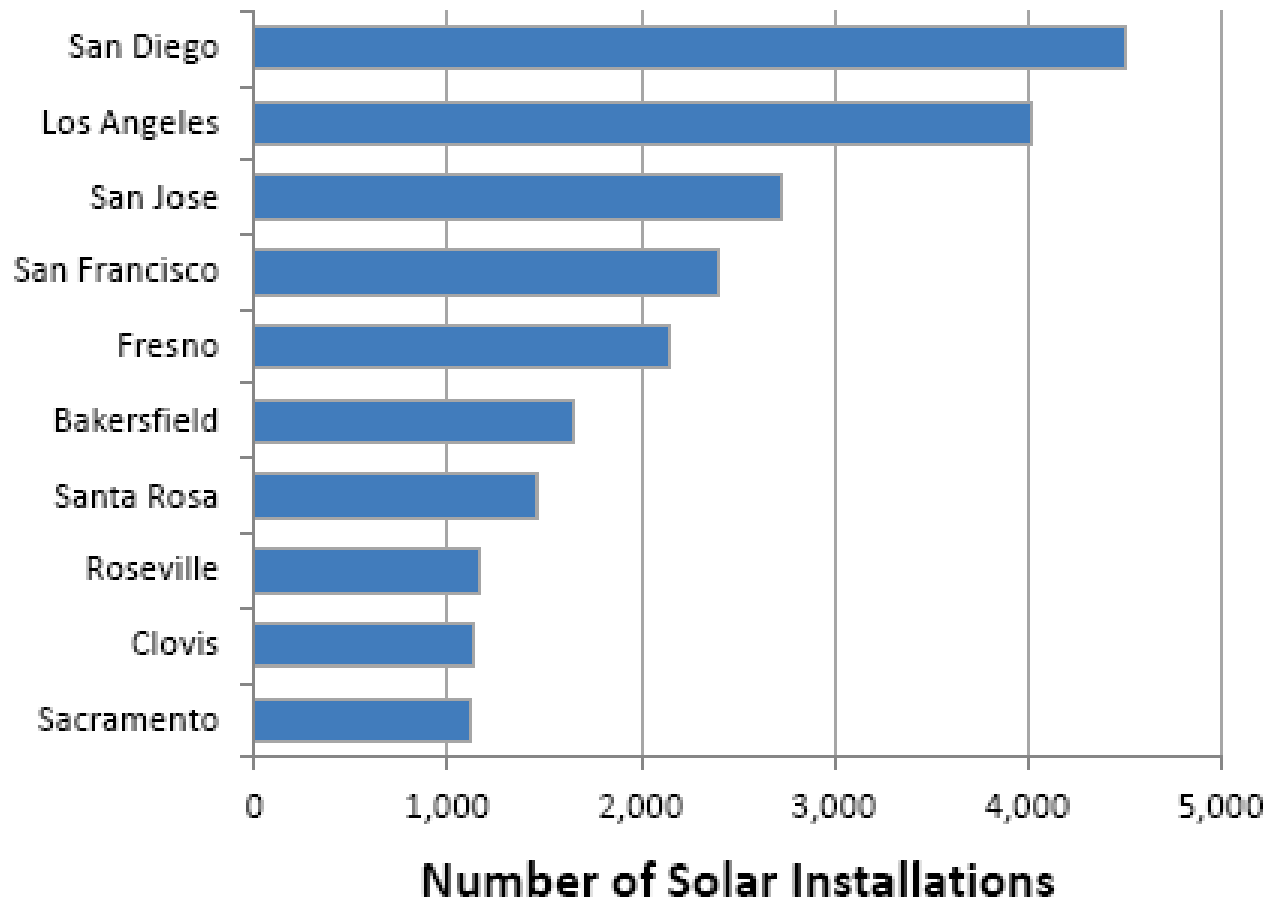
Estimated Growth of Rooftop Solar Power in City of Sacramento, 1999-2011



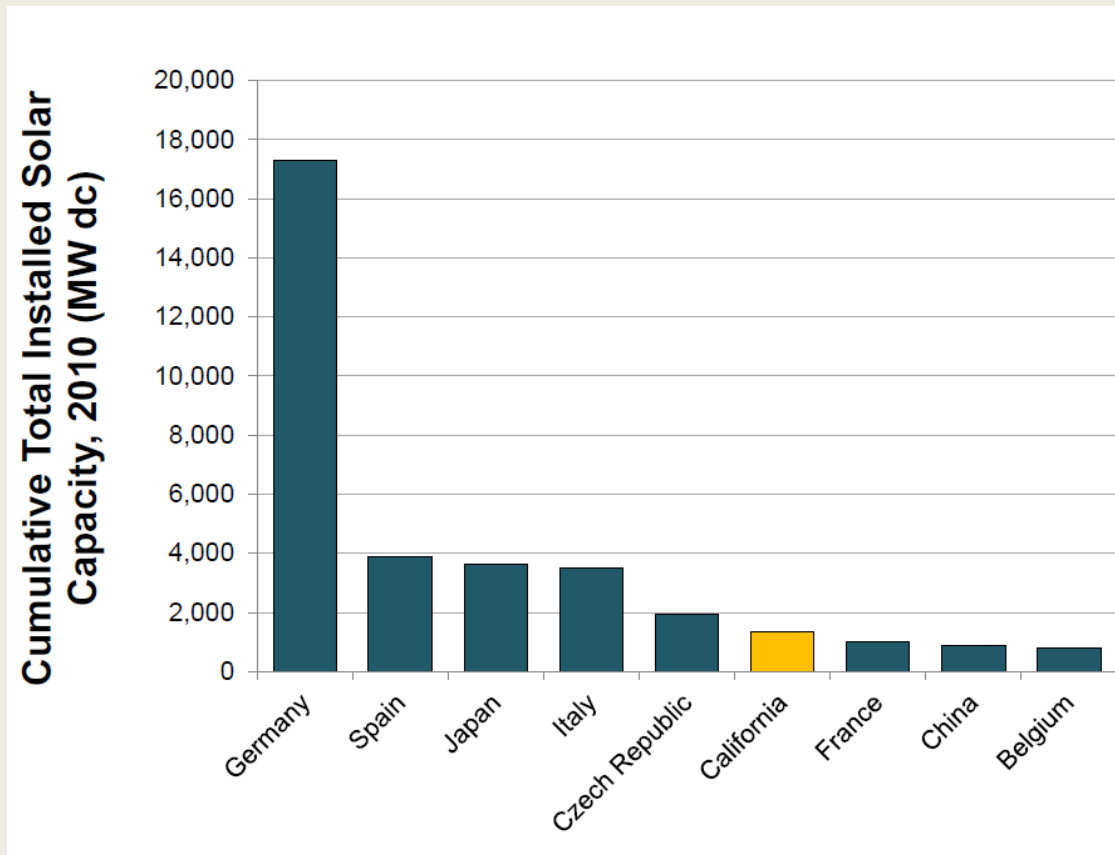
California's Top 10 Cities Circa 1999



California's Top 10 Solar Cities, Circa 2011

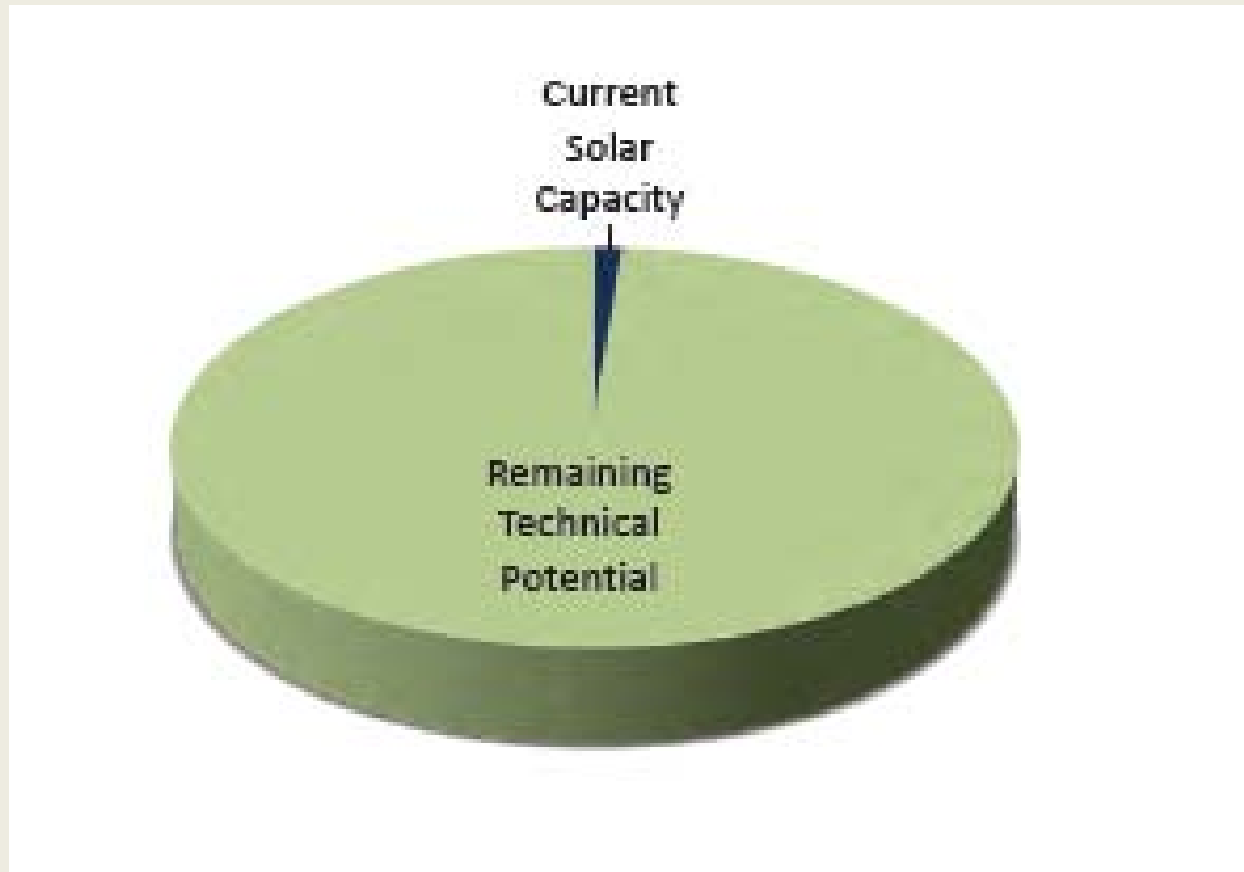


There's nowhere to go from here, but up.



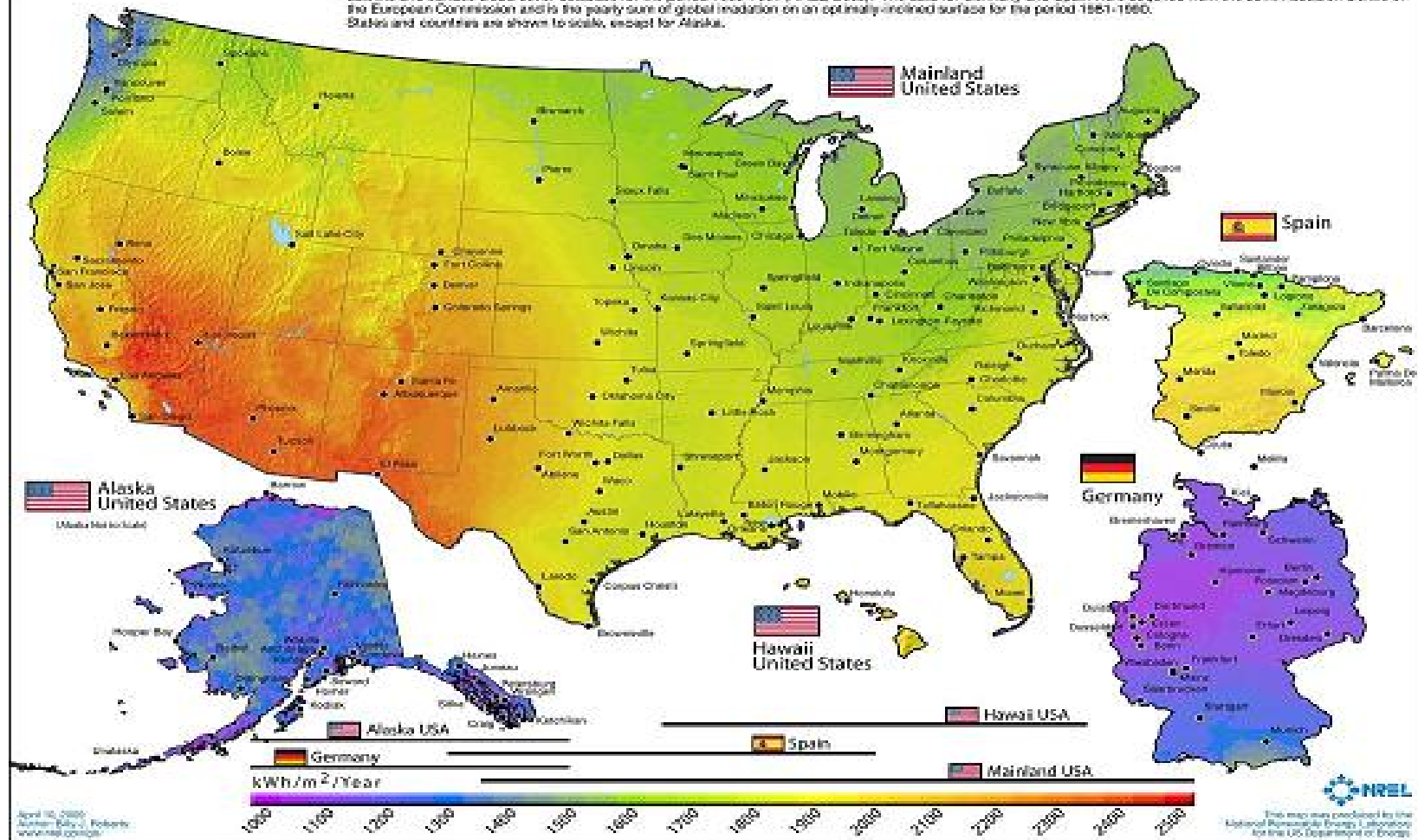
Cumulative Installed Solar Photovoltaic Capacity by Country, through 2010

California has barely begun to capture its solar power potential



Photovoltaic Solar Resource: United States - Spain - Germany

Annual average solar resource data are for a solar collector oriented toward the south at a tilt = local latitude. The data for Hawaii and the 49 contiguous states are derived from a model developed at SLUR/Niagara using geostationary weather satellite data for the period 1984-2005. The data for Alaska are derived from a 40-km satellite and surface cloud cover database for the period 1995-1997 (NREL, 2005). The data for Germany and Spain were acquired from the Joint Research Centre of the European Commission and its proxy data of global irradiation on an optimally-inclined surface for the period 1981-1980. States and countries are shown to scale, except for Alaska.



Some Good Ideas Take a Long Time to Get Traction

“We are like tenant farmers chopping down the fence around our house for fuel when we should be using nature’s inexhaustible sources of energy — sun, wind and tide. ... I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait until oil and coal run out before we tackle that.”

Thomas Edison

Policy Recommendations



Design policies to achieve Governor Brown's goal of installing 12 GW of local, clean energy by 2020.

Getting to 12 GW must include:

- A lift of the cap on net metering to continue to support small rooftop solar systems.
- A strong statewide feed-in-tariff program.
- A mandate that all new homes come equipped with solar systems
- A renewal of programs such as the Public Goods Charge.
- Encourage municipal utilities, such as the Los Angeles Department of Water and Power, to meet and exceed their portion of the Million Solar Roofs goal.
- Extension of federal tax credits.