

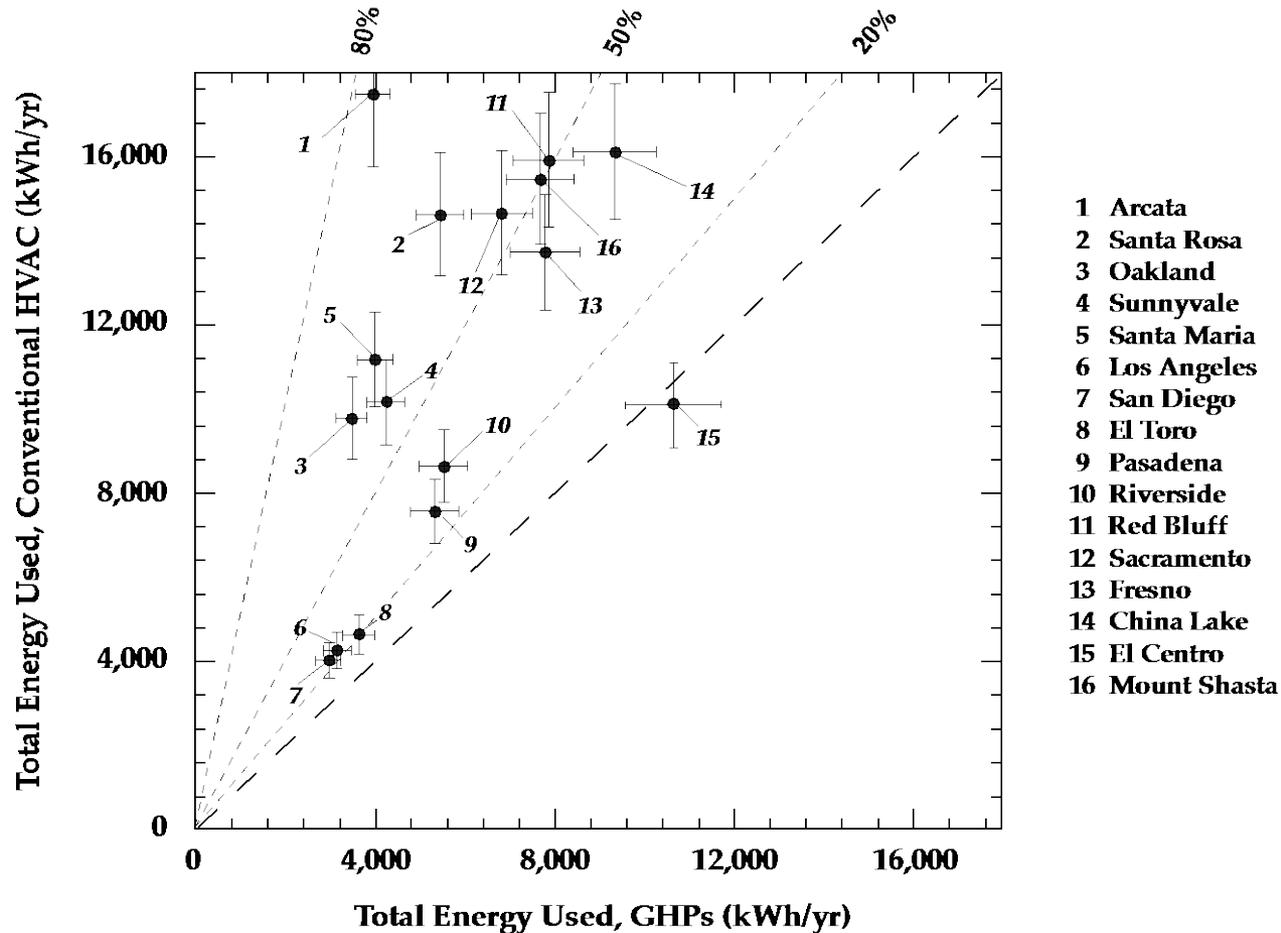
# GEOHERMAL ENERGY IN CALIFORNIA

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# Geothermal Heat Pumps for HVAC

An existing technology that:

1. Provides substantial reduction in energy use (44% statewide).
2. Needs incentives for market growth to offset upfront costs.



# Innovations for Geothermal Power Production

## **Technological advances in geothermal power :**

1. Hybrid geothermal/solar thermal and geothermal/PV.
  - Improved efficiency; seasonal responsiveness; firming
  - Maximize transmission line use, land use
2. Combined technologies for Distributed Generation.
  - Optimize the mix of RE for local use at lowest cost
3. Enhanced geothermal systems.
  - Major advances in improving flow with minimal impact
  - Potential for CA is between 32 GW and 67 GW (USGS)

## **How to advance commercialization:**

1. Improve efficiency of permitting process
2. Make more flexible the PPA system
3. Develop incentives that encourage multiple or hybrid technologies