

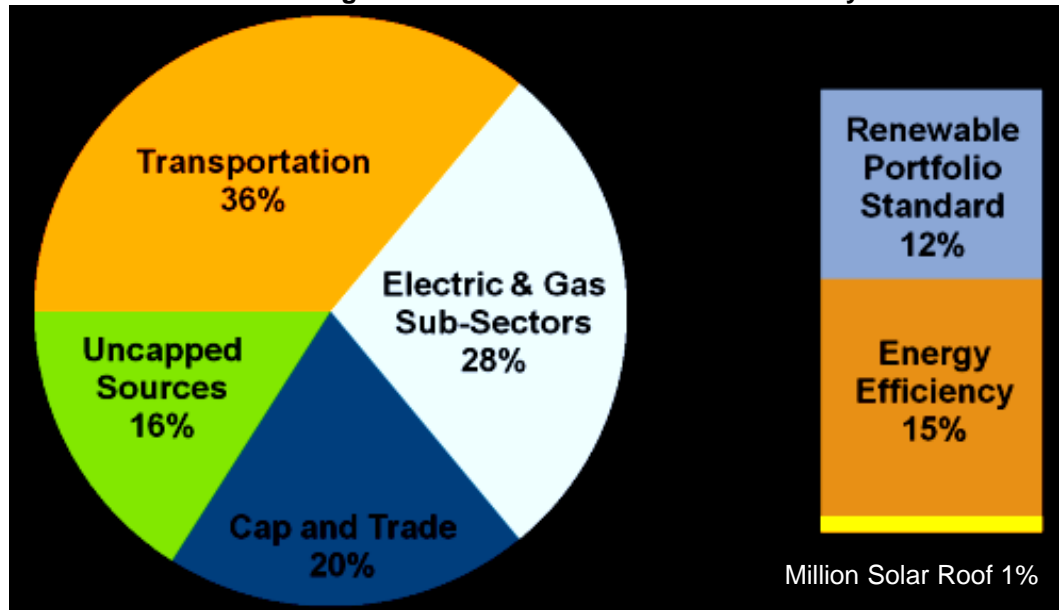
Smart Grid Compliant Energy Efficiency & Demand Response Programs

Energy Efficiency is California's Preferred Resource

"Loading Order" of Energy Resources:

- **Energy efficiency and Demand response**
- Distributed generation
- Renewable generation
- Cleanest available fossil resources

AB 32: California's Greenhouse Gas Emission Reduction Strategies
California's Global Warming Solutions Act Mandates 1990 Levels by 2020

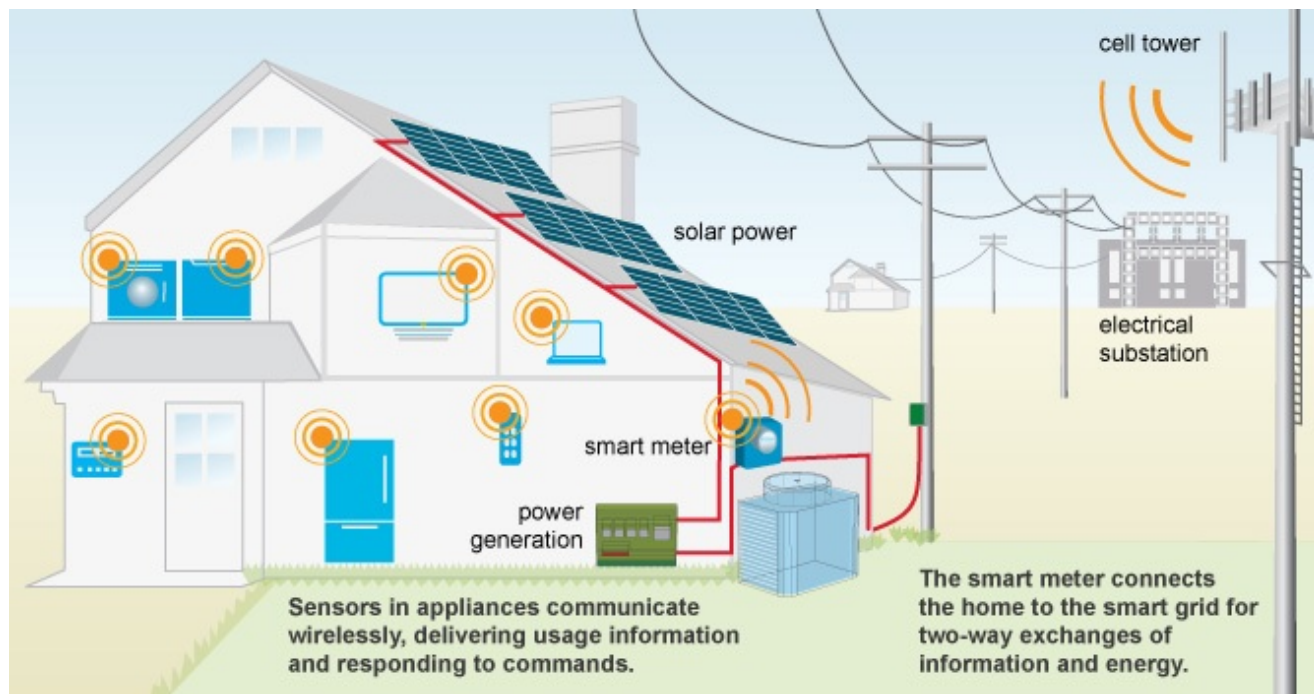


Source: California Air Resources Board Scoping Plan, December 2008, Table 2. Also, CPUC Energy Efficiency Primer 5-23, 2014 Energy Division California Public Utilities Commission (CPUC)
<http://www.cpuc.ca.gov/PUC/energy/Energy+Efficiency/>

Smart Grid enables two-way communications between generation through to electric appliances

Energy efficiency benefits occur when appliances can respond to signals from grid operators or the appliance owners based on grid conditions

Benefits of smart grid include: advanced meters in homes and businesses that can automatically measure and report electricity usage throughout the day

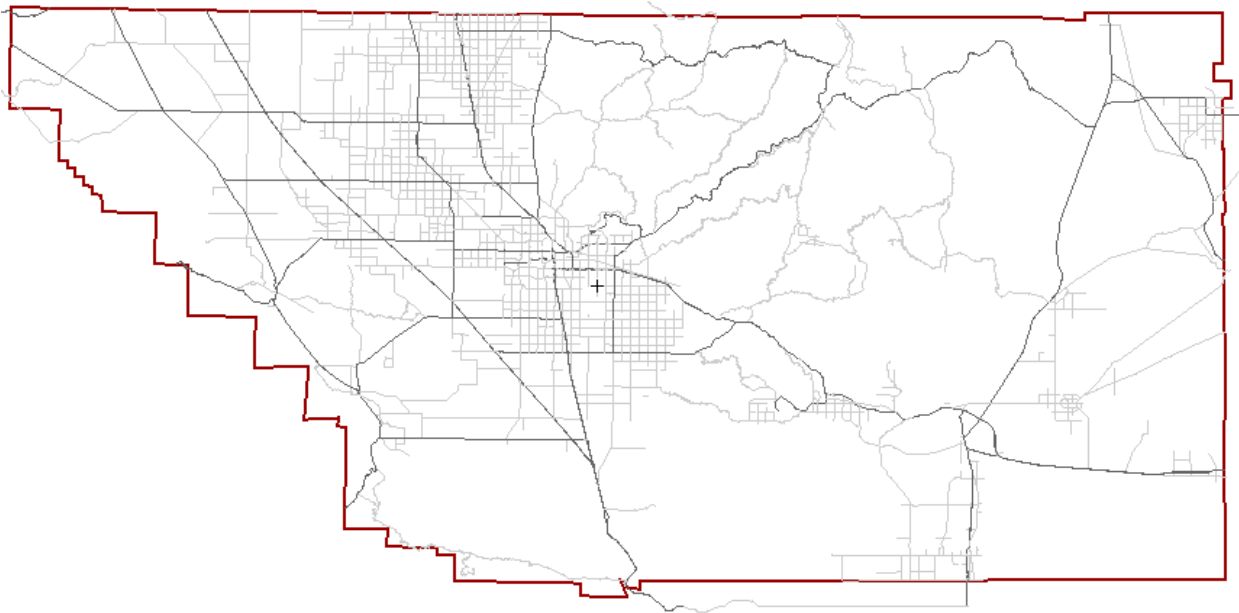


Source: http://www.research.att.com/articles/featured_stories/2010_01/201002_techview_smartgrid.html?fbid=aHzU7f_xgHD

ATT Tech View: Laying the Groundwork for the Coming Smart Grid by: Don Bowen, February 16, 2010

Smart Grid E.E. & Demand Response Benefits for Kern County

Service Territory: 8,100 square miles, 300 facilities, and 4 million square feet



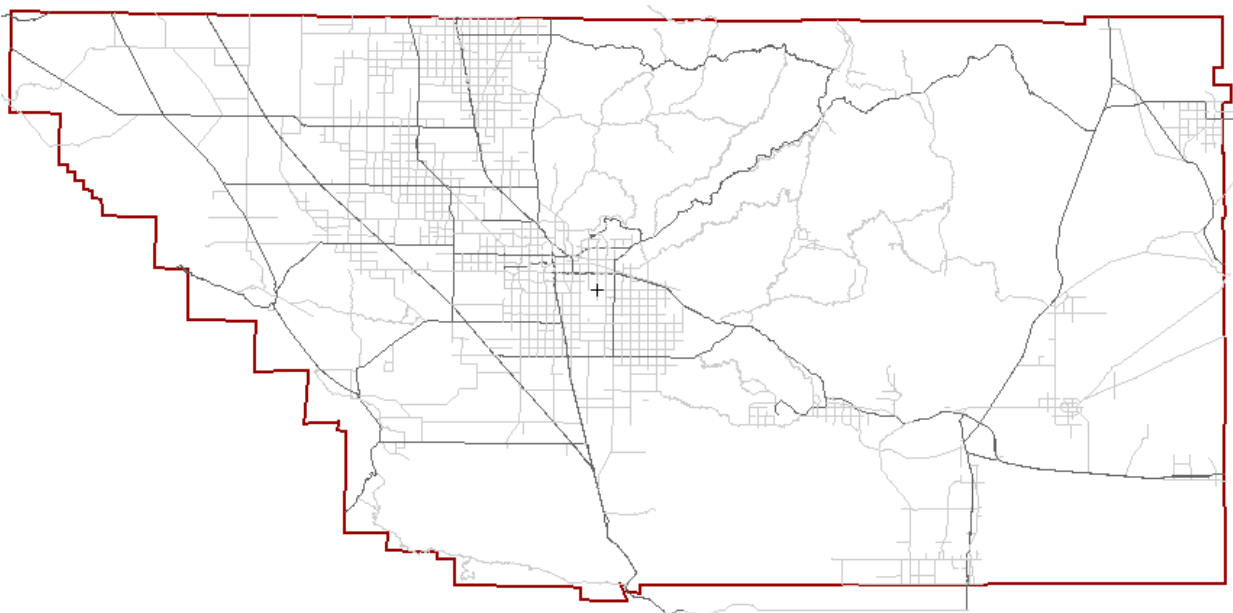
Recently complete our Energy Action Plan which provide E.E. upgrade targets county-wide

Recent equipment upgrade successes include: Central Plant equipment upgrades - new cooling towers, chillers, VFD's, pneumatic to DDC controllers, and new EMS systems

Energy Efficient equipment upgrades include: replacing hundreds of 3 to 5 ton package air conditioning units, upgraded thousand of linear fluorescent lamps and ballast, hundreds of incandescent lamps and exit signs to CFL's and LED's, currently developing outside lighting upgrade program

IOU Energy Efficiency Programs

County of Kern: 1,000 power accounts, use over 70,000,000 kWh annually



Power Grid Congestion Relief

IOU programs include: HVAC rooftop upgrades, HVAC controls, appliance plug load sensors, energy efficient refrigerators, freezers, refrigeration strip curtains, door gasket replacements, vending machine misers, indoor lighting upgrades: incandescent & HID's to CFL or LED fixtures, lighting controls (wall & ceiling sensors) upgrades, Outdoor lighting: incandescent or HID's to CFL's or LED's, building envelop single pane glass window film, etc