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# Energy Master Planning

## Why Is Energy Planning So Important?

Counties today face a tough challenge with energy costs rising and a large portfolio of buildings to manage. In addition there are many federal, state, local, and self-imposed mandates to reduce energy consumption and in turn reduce greenhouse gas (GHG) emissions.

An Energy Master Plan (EMP) is a holistic, comprehensive look at a County's building stock and energy practices to identify strategies to reduce energy and operating costs which will also lead to GHG reductions. The plan will focus on reducing costs through energy efficiency, energy management, and procurement. Clean energy options will also be identified that will further reduce costs and provide the county with resiliency and security.

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## Energy Master Plan Sections

**Overview and Energy Profile:** the plan will identify current challenges, look at energy consumption and cost, and identify recommended energy conservation measures (through energy audits). The plan will create a framework for energy management practices that will include energy and cost reduction goals, behavior modification suggestions, and it will include an economic analysis to identify potential financing mechanisms (grants, revolving loan funds, etc).

- **Project Samples:** County of Santa Barbara Energy Action Plan, City of Norwalk Action Plan, and City of El Segundo Electricity Consumption Report

**Energy Procurement Profile**: an analysis of the County's current utility procurement structures with Southern California Edison and San Diego Gas & Electric. The Procurement Profile also offers recommendations for future procurement strategies such as Community Choice Aggregation (CCA).

- **Project Samples:** City of Lancaster CCA Feasibility Study, Clean Power San Francisco CCA Build Out Analysis and Report, and Central Coast CCA Feasibility Study (recently awarded)

**Renewable/Alternative Energy Profile**: an overview of the County's renewable projects, analysis of county facilities surveyed for solar, a list of facilities recommended for solar, and an overview of other renewable options such as microgrids, fuel cells, battery storage, and co-generation.

- **Project Samples:** County of San Diego ASHRAE Level 2 Audits for Juvenile Hall, East Mesa Detention, and Air Pollution Control District Facilities
- **Community Microgrid Feasibility Studies:** Villages of Arcade, Bath, Geneseo, Sleepy Hollow, Tarrytown, Wappingers Falls, and Westfield, NY; and the Cities of Plattsburgh and Rochester, NY

**Sustainability Profile:** an overview of current County policies and strategies that aim to meet the current needs of the County without compromising future generations by preserving natural resources. The sustainability profile will evaluate how the County can reduce energy, conserve water, and implement programs that impact and benefit the constituents of the County of Orange. It will provide recommendations for initiatives with lasting impacts to the County's building stock as well as the community at large.

- **Project Sample:** City of El Segundo's Voluntary Green Building Standards, City of Goleta Energy Reach Codes, City of Eudora Automatic Water Meter Deployment, and Sunstone Real Estate Investment Trust Sustainability Report