



Goleta Load Pocket Community Microgrid (GLPCM)

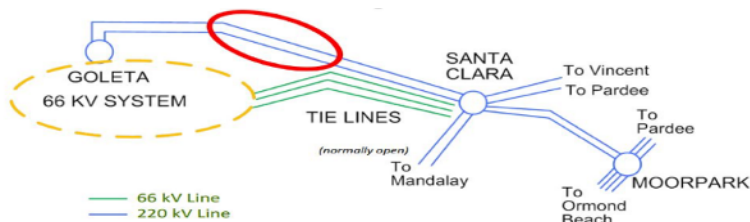
The perfect opportunity for a comprehensive Community Microgrid

The Goleta Load Pocket (GLP) spans 70 miles of Southern California coastline, from Point Conception to Lake Casitas, encompassing Goleta, Santa Barbara, Montecito, and Carpinteria.

- The GLP is highly transmission-vulnerable, served by just one set of transmission lines that are hung on the same transmission towers and routed through 40 miles of mountainous terrain.
- 200 MW of solar and 400 MWh of energy storage will provide 100% protection to the GLP against a complete transmission outage – about 5 times the amount of solar currently deployed and about 7% of the area's technical siting potential on built environments like rooftops, parking lots, and parking structures.
- Energy efficiency, demand response, and offshore wind can significantly reduce solar+storage requirements.

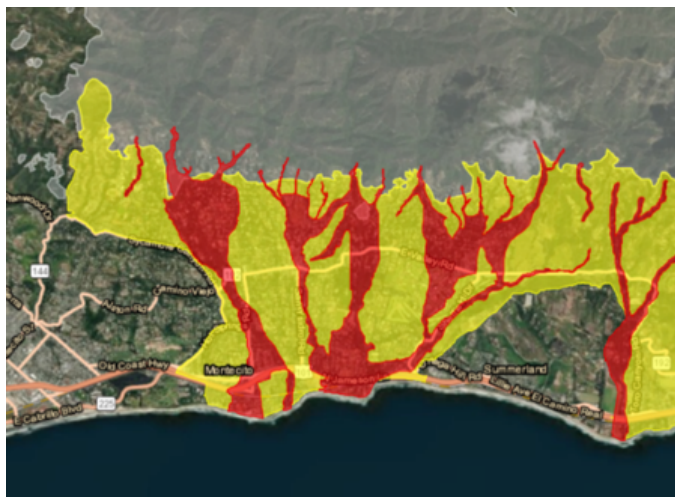


Thomas Fire, December 2017



The GLPCM provides a unique opportunity to bring a disaster-prone region indefinite renewables-driven backup power – providing the community unparalleled economic, environmental, and resilience benefits.

Montecito Community Microgrid: First building block for the GLPCM



Montecito areas at extreme & high risk for debris flows
Source: Santa Barbara County OEM

Overall goal

To provide renewables-driven resilience to critical community facilities in Montecito and to showcase the benefits of Community Microgrids for communities around the world.

Facilities where microgrids are anticipated for initial deployment

- Montecito Fire Protection District headquarters & primary fire station.
- Montecito Water District headquarters with critical wells & pumps.
- Montecito Union School for emergency response & sheltering.

Each site is anticipated to benefit from indefinite renewables-driven backup power for the most critical loads:

- 10% of the load 100% of the time.
- 100% of the load at least 25% of the time.

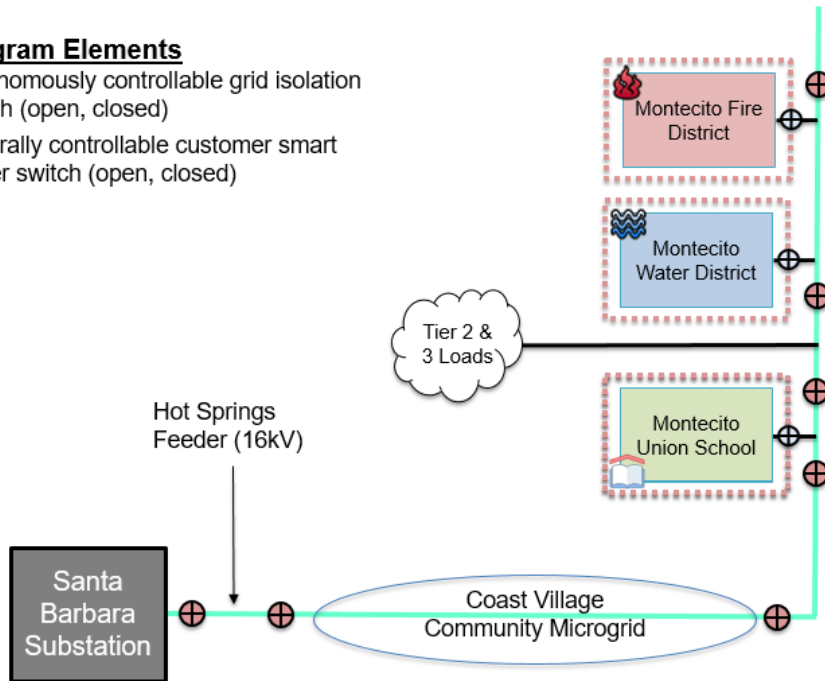
Elements of the Montecito Community Microgrid

Designs are being finalized for the initial 3 Montecito Community Microgrid sites. During a long-term power outage, Community Microgrids will keep these critical community facilities operational.

During normal operations, the individual microgrids will provide economic benefits and drastically reduce the carbon footprint of the community while advancing regional, state, and global climate action goals.

Diagram Elements

- ⊗ ⊕ Autonomously controllable grid isolation switch (open, closed)
- ⊗ ⊕ Centrally controllable customer smart meter switch (open, closed)



Montecito Fire and Water Districts



Montecito Union School

Community Microgrids: A resilient solution

Community Microgrids are a new approach for designing and operating electric grids, stacked with local renewables and staged for resilience.

Features

- Targeted and coordinated distribution grid areas served by one or more substations, with the ability to **island** from the broader grids.
- High penetrations of **distributed energy resources (DER)**.
- Staged capability for **indefinite renewables-driven backup power** for critical community facilities and beyond.
- Easy **replication and proliferation**.



To learn more about the GLPCM and the Montecito Community Microgrid, visit bit.ly/cleanco-glp.

About the Clean Coalition

The Clean Coalition is a nonprofit organization whose mission is to accelerate the transition to renewable energy and a modern grid through technical, policy, and project development expertise. In addition to designing and staging Community Microgrids, the Clean Coalition drives policy innovation to remove barriers to procurement and interconnection of distributed energy resources (DER) and establishes market mechanisms that realize the full potential of integrating these solutions. Visit us at www.clean-coalition.org.