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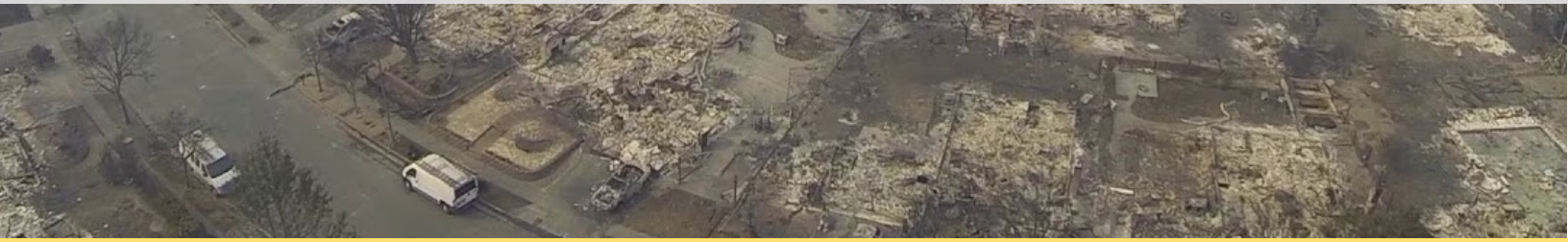


North Bay Community Resilience Initiative (NBCRI)

Creating a reliable and resilient energy system

In 2017 and 2018 the North Bay region of California's San Francisco Bay Area experienced devastating, deadly wildfires. The North Bay Community Resilience Initiative was developed in response to these tragic climate-related events to develop and promote community resilience, with the following goals:

- Track and publicize leading programs for energy efficiency, renewable energy, electrification, and resilience.
- Facilitate the development of model structures and streamline the permitting thereof.
- Stage multiple Community Microgrids to provide the region economic, environmental, and resilience benefits.

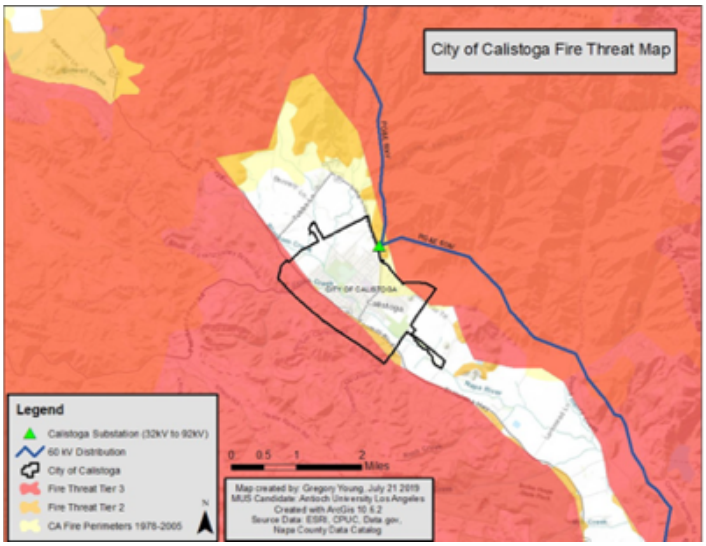
Community Microgrids: A resilient solution

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**.

Calistoga Community Microgrid



Facing Public Safety Power Shutoffs (PSPS) in addition to wildfire threats, the City of Calistoga is seeking the resilience of a Community Microgrid.

The Calistoga Community Microgrid is now a core element of the NBCRI with the ultimate goal of implementing a Community Microgrid that serves the full Calistoga substation area, starting with 7 critical community facilities.

Clean Coalition activities

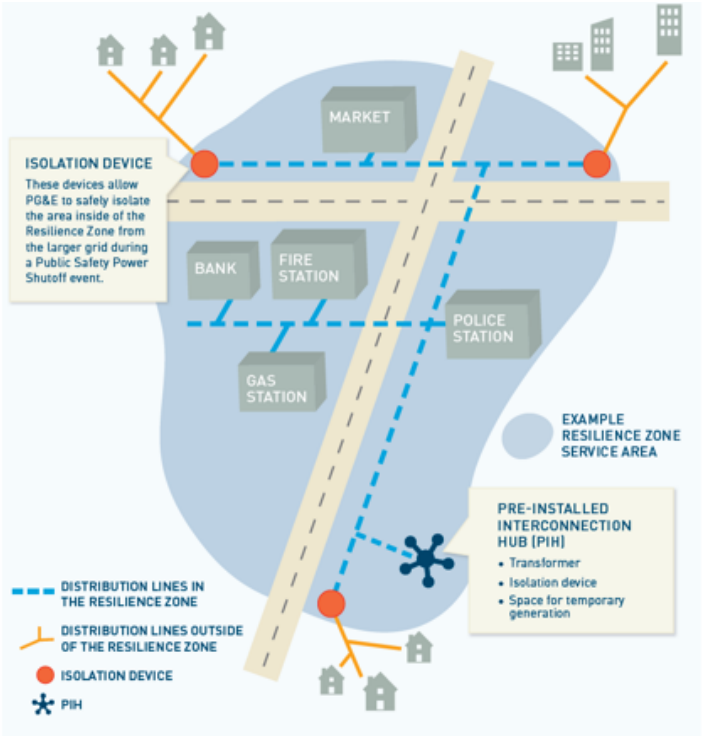
- Conducting a feasibility study for the City for a Community Microgrid, including functional designs for 7 targeted sites.
- Collaborating with PG&E to locate potential grid isolation switches and pre-installed interconnection hubs, which facilitate Community Microgrids.
- Engaging with local stakeholders to identify critical facilities to be part of the Calistoga Community Microgrid.

Preparing for Community Microgrids

Model structures
We have the technology but lack the policies and market mechanisms to deploy Community Microgrids widely. As we work to move these forward, we can build or retrofit model structures that will be ready to connect to Community Microgrids when the right conditions are in place. The NBCRI is facilitating model structures in the region that provide successful examples that can be followed throughout the US – such as the home pictured here.

This all-electric, energy efficient home with solar+storage, rebuilt with help from the Sonoma Clean Power Advanced Energy Rebuild incentive program, saved a Santa Rosa family on construction costs & timing and is saving the family on ongoing utility bills – including entirely eliminating their gas bill.

Electrification & Community Microgrid Ready guidelines
In collaboration with a team of industry experts, the Clean Coalition developed the Electrification & Community Microgrid Ready (EMCR) guidelines. The ECMR guidelines serve to enhance building codes and to assist homeowners, developers, and electrical engineers to easily plan and install the simple, inexpensive wiring and components required to implement all-electric, Net Zero Energy, resilient structures that can connect to future Community Microgrids – and for all parties to understand the cost-effectiveness.



Resilience Zone and PIH – Source: PG&E

Grid isolation switches, pre-installed interconnection hubs (PIH), and Resilience Zones
PG&E is investigating grid isolation switches and PIH solutions for areas subject to Public Safety Power Shutoffs. Pre-installed interconnection hubs would enable mobile energy sources such as energy storage and/or diesel generators to interconnect to designated Resilience Zones during these planned outages, providing resilience to communities. The built-in islanding capabilities of grid isolation switches and PIH set the stage for the Calistoga Community Microgrid, and future Community Microgrids throughout California and well beyond.

Public Safety Power Shutoff map of Calistoga – Source: PG&E

To learn more about the North Bay Community Resilience Initiative, visit bit.ly/nbcri.

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.