

Navigating Photovoltaic and Battery Energy Storage Projects through HCAI

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Intro

AB 2511 amended Health and Safety Code (HSC) Section 1418 and added Section 1418.22 that requires that skilled nursing facilities and OSHPD 2 type campuses have an alternative source of power to provide back up power for a minimum of 96 hours in the event of an outage. In this venue, distributed generation is discussed as an alternative source of power.

Methods

If there is an outage event and the utility source is no longer available, the distributed energy sources with the batteries will provide a stable off-grid voltage at main switchgear within 10 seconds.

Once the utility source has returned and the utility power is stable, the main breaker is closed at the main switchgear and the microgrid begins to operate as noted under normal conditions. The new system components shall meet requirements of Title 24, California Electrical Code, Part 3, Article 705 (Interconnected Electric Power Production Sources), have special seismic certification and fulfill the 96-hour fuel requirement. The loads backed up will be assigned under the critical loads panel and can include equipment such as cooling equipment, life-saving equipment, and oxygen-generating devices.

Results

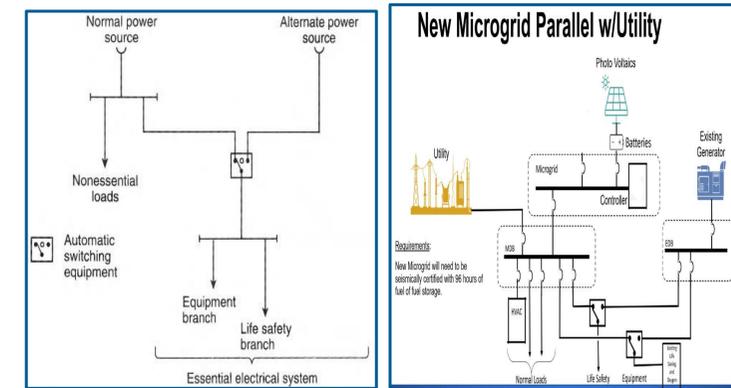
The parallel microgrid system will comply with Title 24, California Electrical Code, Part 3, Article 517.42 - Essential Electrical Systems for Nursing Homes and Limited Care Facilities.

Renewable Energy and Distributed Generation to provide back-up power for life-saving equipment and oxygen-generating devices.

RESOURCE
& TECH

AMERICAN
CLEAN
POWER

Tables, Figures & Graphs



Essential Electrical System

Microgrid Parallel w/ Utility

Discussion

The development of a microgrid parallel to the utility provides a viable project solution in the solar plus storage space that has received HCAI approval and comply with HSC § 1418.22. The purpose of this research is to arm developers and installers with the tools to receive approval from HCAI for solar plus storage projects and aid the proliferation of these projects across the State of California.

Acknowledgements

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References

Office of Statewide Hospital Planning and Development. Alternate source of power to maintain safe temperatures, life-saving equipment, and oxygen-generating devices for skilled nursing facilities. March 2023

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