



Emergency Preparedness Plan (EPP) Series

AB 2511—Alternate Power Sources and Emergency Power

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Upcoming 2024 EPP Webinars

Date	Title
March 20	How Do You Get Good at Doing Drills (Only Twice a Year)?
April 17	Power Outages
May 22	Cybersecurity Attacks
June 12	Who/What is ASPR Tracie?

Register at: www.hsag.com/epp-series

Today's Speakers

Richard Tannahill

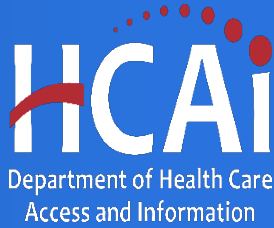
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Introduction to

Assembly Bill 2511

Health & Safety Code 1418.22

Skilled Nursing Facility (SNF)

Alternate Power Source

PURPOSE

The purpose of law is to provide for the implementation of alternate sources of power to maintain safe temperatures, maintain availability of life-saving equipment, and maintain oxygen-generating devices for SNF buildings.



THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

SECTION 1. Section 1418.22 is added to the Health and Safety Code, to read:

1418.22. (a) The Legislature finds and declares that it is the public policy of this state to ensure the health and safety of highly vulnerable persons residing in skilled nursing facilities during power outages that may result from a public safety power shutoff, an emergency, a natural disaster, or other cause.

(b) (1) A skilled nursing facility shall have an alternative source of power to protect resident health and safety for no fewer than 96 hours during any type of power outage.

(2) For purposes of this section, "alternative source of power" means a source of electricity that is not received through an electric utility, but is generated or stored onsite, which may include but is not limited to emergency generators using fuel, large capacity batteries, and renewable electrical generation facilities.

(c) For purposes of this section, "resident health and safety" includes, but is not limited to, maintaining a safe temperature for residents, maintaining availability of life-saving equipment, and maintaining availability of oxygen-generating devices.

(d) Facilities that use a generator as their alternative source of power shall maintain sufficient fuel onsite to maintain generator operation for no less than 96 hours or make arrangements for fuel delivery for an emergency event. If fuel is to be delivered during an emergency event, the facility shall ensure that fuel will be available with no delays.

(e) Facilities that use batteries or a combination of batteries in tandem with a renewable electrical generation facility as their alternative source of power, shall have sufficient storage or generation capacity to maintain operation for no fewer than 96 hours. Facilities shall also make arrangements for delivery of a generator and fuel in the event power is not restored within 96 hours and the generation capacity of the renewable electrical generation facility is unable provide sufficient power to comply with state requirements for long-term care facilities.

(f) A facility shall comply with the requirements of this section by January 1, 2024.

BACKGROUND

- SNFs in California have previously been required to provide 6 hours of on-site fuel storage for emergency power system sources such as emergency generators.
- SNFs have not been required to provide emergency power for cooling systems.
- The new law requires that SNFs have an alternative source of power to protect resident health and safety for no fewer than 96 hours for power outages that may result from a **public safety power shutoff, an emergency, a natural disaster, or other cause.**
- An alternative source of power is defined as a source of electricity that is not received through an electric utility, but is generated or stored onsite, which may include, but is not limited to emergency generators using fuel, large capacity batteries, and renewable electrical generation facilities.

DEFINITIONS/REQUIREMENTS

Safe Temperature for Residents

“Safe temperature” **under emergency conditions**: Federal Code of Regulations, Title 42, §483.73(b)(1)(ii)(A), CMS emergency preparedness requirements, states, “alternate sources of energy to maintain - Temperatures to protect resident health and safety and for the safe and sanitary storage of provisions.” Title 42, §483.10(i)(6) requires “comfortable and safe temperature levels. Facilities must maintain a temperature range of **71 to 81 °F.**”

Furthermore, the Centers for Medicare & Medicaid Services (CMS) requires facilities to establish procedures that determine how heating and cooling of their facility will be maintained during an emergency, including when there is a loss of the primary power source.

It is noted that facilities are not required to heat and cool the entire building evenly but must ensure safe temperatures are maintained **in areas deemed necessary to protect patients**, other persons and for stored provisions. This is to be determined by the facility risk assessment.

DEFINITIONS/REQUIREMENTS

Life-Saving Equipment

Life-saving equipment, where provided, shall have power provisions for a period of 96 hours from an alternate source of power. Life-saving equipment may include but shall not be limited to ventilators, automated external defibrillators (AEDs), crash carts with defibrillators, intravenous therapy equipment, feeding pumps, intravenous line (IV) pumps, nebulizer machines, suction equipment, and medication dispensing machines.

Oxygen-Generating Devices

Oxygen-generating devices, where provided, shall have power provisions for a period of 96 hours from an alternate source of power. Oxygen-generating devices may include but shall not be limited to concentrators and positive pressure apparatus as identified in Title 22, California Code of Regulations, Section 51511.

1st Step—On-Site Source of Power Assessment

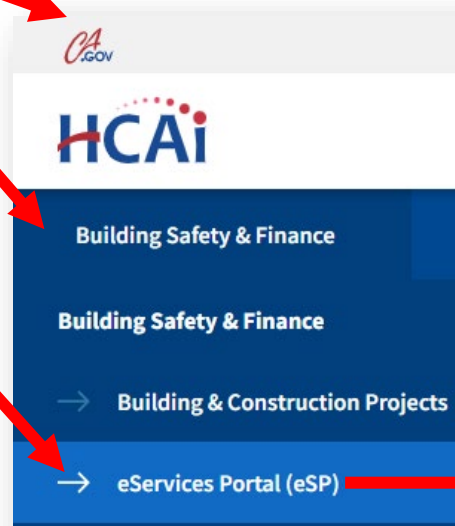
SNFs shall submit an evaluation of on-site sources of power under the provisions of HSC §1418.22. The Assessment Form which can be used to identify items for inclusion in the Assessment Report. The Assessment Report shall include existing conditions and describe proposed changes that will result in a SNF's compliance with HSC §1418.22.

ASSESSMENT APPLICATION

SNF Backup Power Source Assessment is the user guide that provides step-by-step instructions. Visit <https://hcai.ca.gov>

Under Building Safety & Finance

Select eServices Portal (eSP)



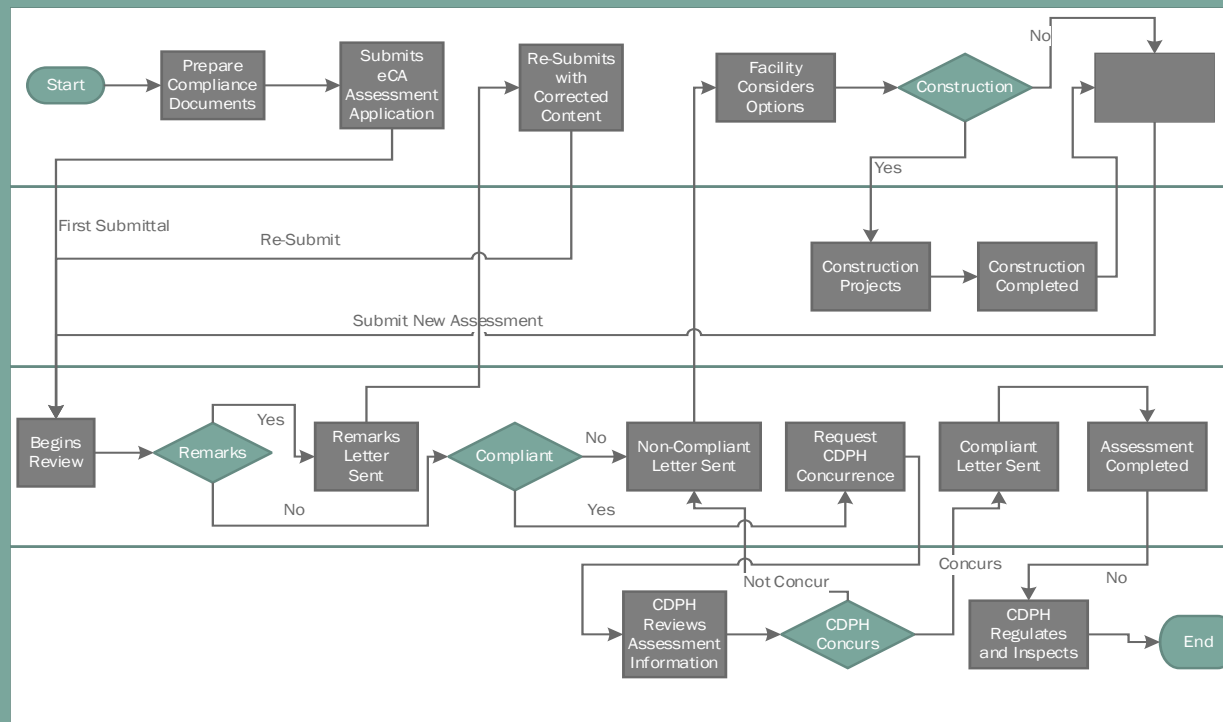
eServices Help & User Guides

User Guides

1. System Overview
2. Account Registration
3. Facility Authorization
4. Account Management & Delegation
5. Applications for New Projects
6. Applications for Alternate Method of Compliance (AMC)
- 6b. Applications for Post Approval Documents (PADs): Amended Construction
7. Applications for Building Permits
8. Paying Invoices
9. Expedited Building Permit (XBP) for SNFs
10. Attaching Plans and Documents
11. Electronic Submittal Requirements
12. Appeals Using the Comment and Process Review (CPR)
13. Applications for Seismic Extensions
14. Amendments and Quarterly Reports for Seismic Extension Projects
15. Document Attachment Control
16. Re-Opening Closed Projects
17. Application for HCAI Preapproval (OSP and OPM)
18. Application for HCAI Preapproved Agency (OPAA)
19. Small and Rural Hospital Relief Program Eligibility Tool (SB 395)
20. Applying for Removal of Acute Care Services (RACS)
21. Application for Seismic Compliance Plan Review
22. SNF Backup Power Source Assessment

AFTER SUBMISSION

- Once the assessment application is submitted, HCAI will perform a review to determine compliance.
- The flow chart to the right shows the process to obtain compliance with HSC 1418.22.



Analysis

Power Source

Any new or existing onsite essential and alternate power source used to meet AB 2511 requirements shall conform to one or more of the following requirements as applicable:

1. Title 24, California Electrical Code, Part 3, **ARTICLE 517.29** through 517.30 for SNF Subacute units
2. Title 24, California Electrical Code, Part 3, **ARTICLE 517.40** and 517.41 Essential Electrical Systems for Nursing Homes and Limited Care Facilities
3. Title 24, California Electrical Code, Part 3, **ARTICLE 701** - Legally Required Standby Systems
4. Title 24, California Electrical Code, Part 3, **ARTICLE 705** - Interconnected Electric Power Production Sources

Additional Code Sections and Requirements

The following requirements are applicable:

1. Special seismic certification of alternate power equipment, Title 24, California Building Code, Part 2, Volume 2, Section 1705.13.3
2. 96 hours of on-site fuel storage (or an approved Emergency Preparedness Plan).
3. Local review may be required.

Additional Code Sections and Requirements (cont.)

Acceptable Outage Durations:

1. Life-Saving Equipment and Oxygen Generating equipment will be required to be restored to back up power within 10 seconds of failure of normal power source.
2. Cooling and heating equipment will be restored to power within sufficient time to maintain temperature between 71–81 degrees Fahrenheit.

California Electrical Code (CEC) Sections

The following three scenarios could be used provide compliance options for existing SNFs to meet HSC §1418.22:

1. Add New Loads to Existing or Replacement Emergency Generator:
 - a. ARTICLE 517.29 through 517.30 for SNF Subacute units
 - b. ARTICLE 517.40 and 517.41 Essential Electrical Systems for Nursing Homes and Limited Care Facilities
2. New or Additional Generator: ARTICLE 701 for legally required standby systems
3. New Healthcare Microgrid: ARTICLE 705, Interconnected Electric Power Production Sources

Note: Other designs could be implemented to meet new HSC §1418.22 requirements

Article 517—Health Care Facilities:

Alternate Power Source

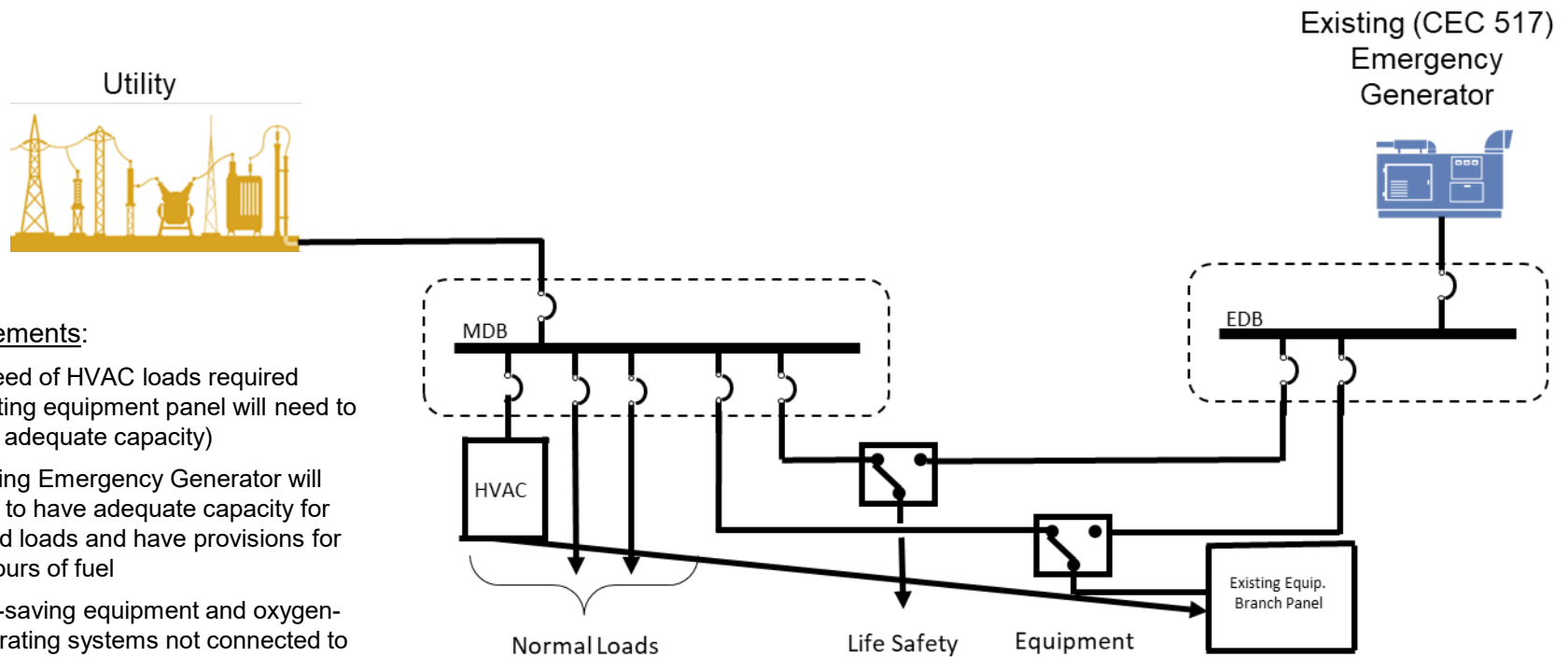
One or more generator sets, or battery systems where permitted, intended to provide power during the interruption of the normal electrical service; or the public utility electrical service intended to provide power during interruption of service normally provided by the generating facilities on the premises.

Essential Electrical System

A system comprised of alternate sources of power and all connected distribution systems and ancillary equipment, designed to ensure continuity of electrical power to designated areas and functions of a health care facility during disruption of normal power sources, and also to minimize disruption within the internal wiring system.

1. SNF– CEC 517 (Emergency Generator)

- Source: Existing or Replacement Generator
- EPSS = Generator, Transfer Switch & Distribution Systems



Requirements:

- Re-feed of HVAC loads required (existing equipment panel will need to have adequate capacity)
- Existing Emergency Generator will need to have adequate capacity for added loads and have provisions for 96 hours of fuel
- If life-saving equipment and oxygen-generating systems not connected to emergency will need to be re-fed with emergency power

Article 701—Legally Required Standby Systems

Legally Required Standby Systems

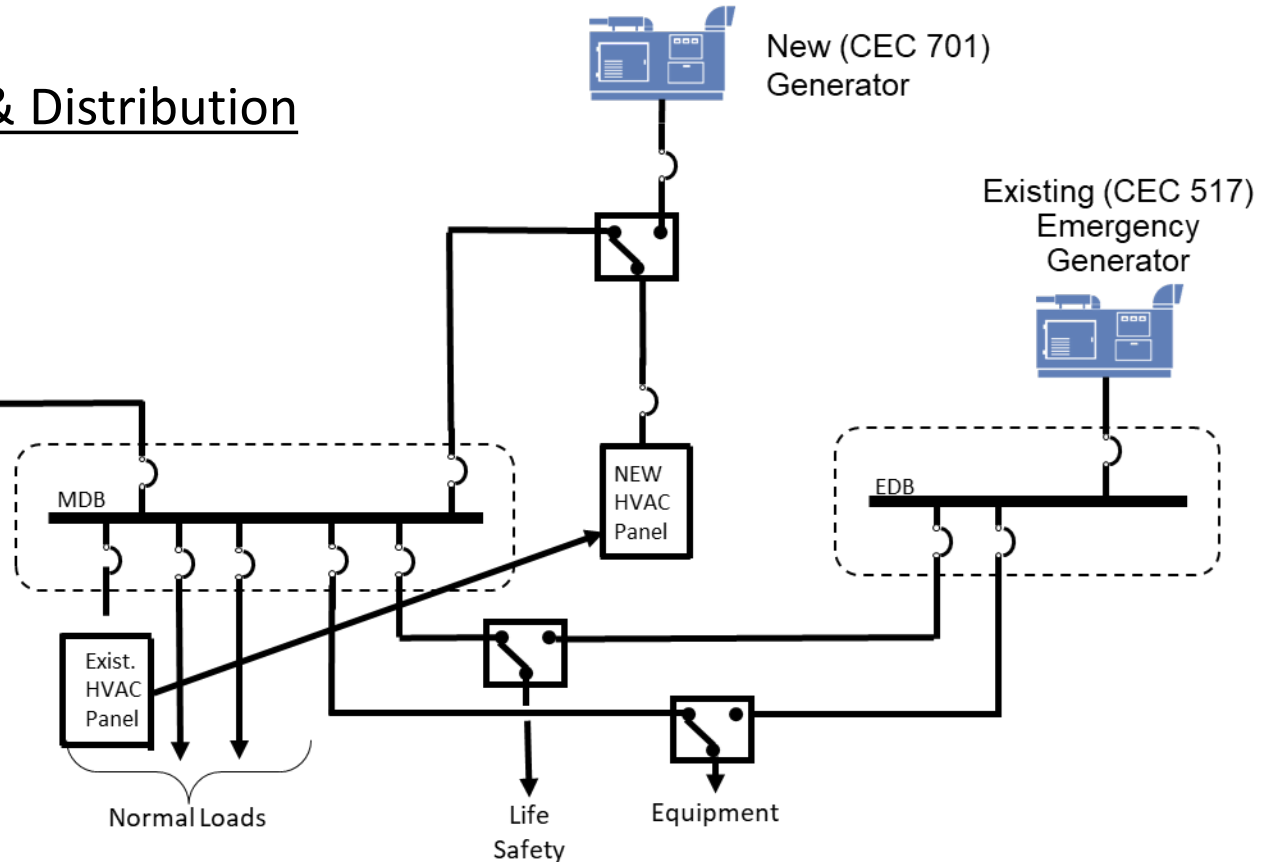
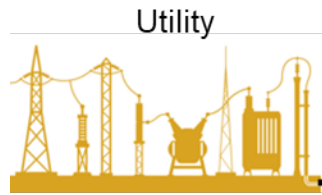
Those systems required and so classed as legally required standby by municipal, state, federal, or other codes or by any governmental agency having jurisdiction. These systems are intended to automatically supply power to selected loads (other than those classed as emergency systems) in the event of failure of the normal source.

Sources of Power

- Storage batteries
- PV's
- Generator set
- Uninterruptible power supply (UPS)
- Fuel cell system

2. SNF-CEC 701 Legally Required Standby

- Source(s): Batteries, PV's, Generator, UPS and/or Fuel Cell
- LRSS = Transfer Switch & Distribution Systems



Requirements:

- Re-feed of HVAC loads required
- New Generator/ATS/Panel will need to be seismically certified with 96 hours of fuel required
- Existing generator will need provisions for 96 hours of fuel

Article 705—Interconnected Electric Power Production Sources

Microgrid System

A premises wiring system that has generation, energy storage, and load(s), or any combination thereof, that includes the ability to disconnect from and parallel with the primary source.

Power Production Equipment

The generating source, and all distribution equipment associated with it, that generates electricity from a source other than a utility supplied service.

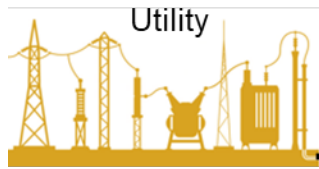
- PV's
- Battery Storage units
- Fuel Cell's
- Microturbines

Microgrid Interconnect Device (MID)

A device that allows a microgrid system to separate from and reconnect to a primary power source.

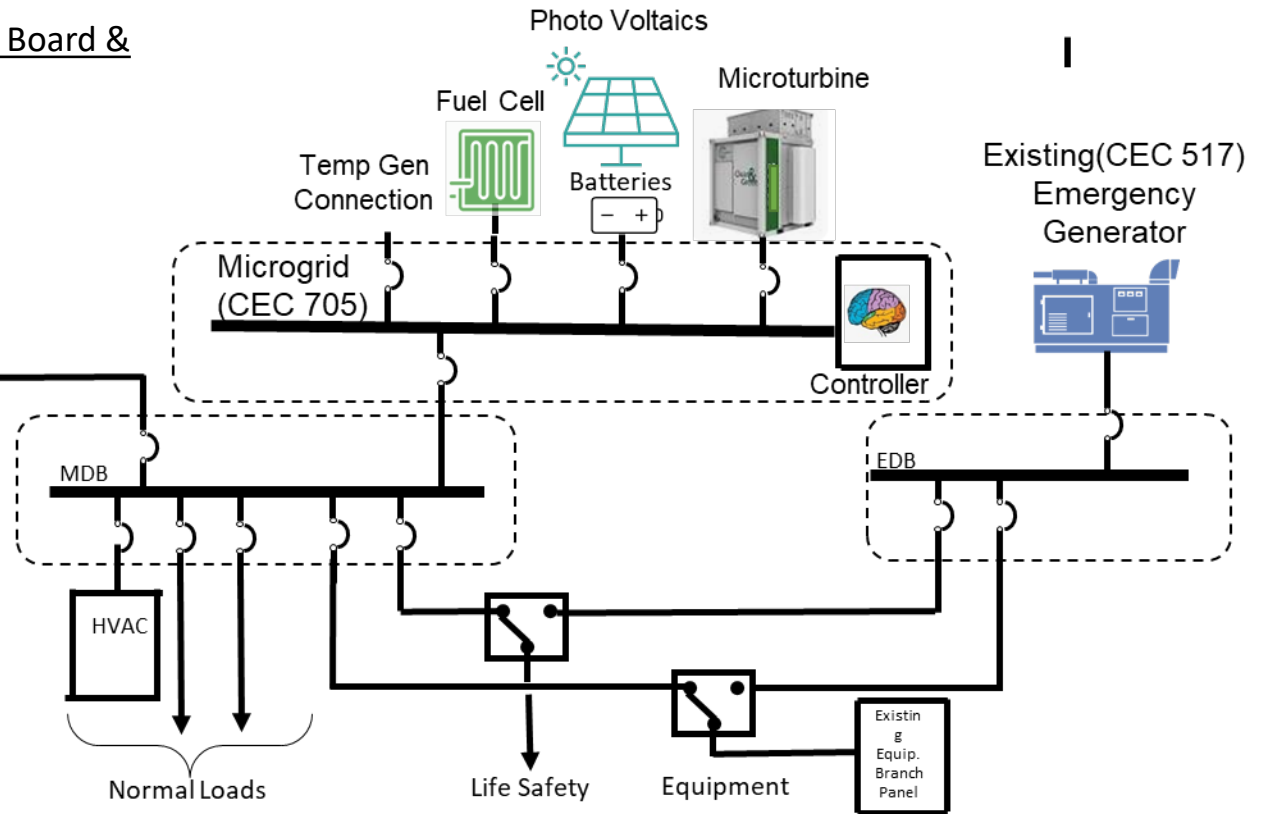
3. SNF-CEC 705 Microgrid Parallel w/Utility

- Power Production Equipment: Batteries, PV's, Generator, UPS and/or Fuel Cell
- Microgrid = DER's, Distribution Board & Controller



Requirements:

- New Microgrid will need to be seismically certified with 96 hours of fuel provisions -6 hours of fuel for Existing Emergency Generator
- Quick connect for temporary generator required
- 125% of DER's + MDB main breaker rating < 120% MDB bus rating

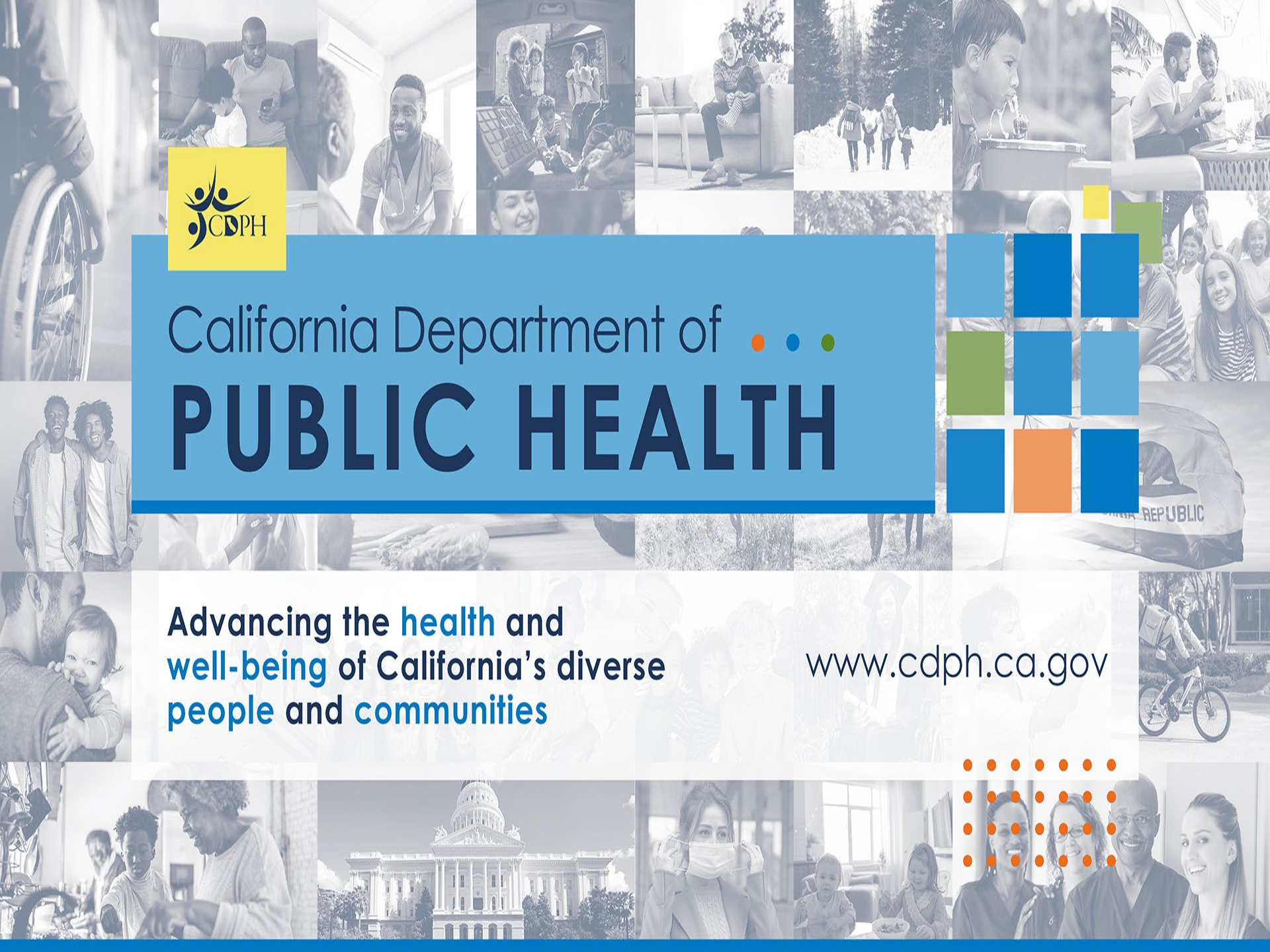




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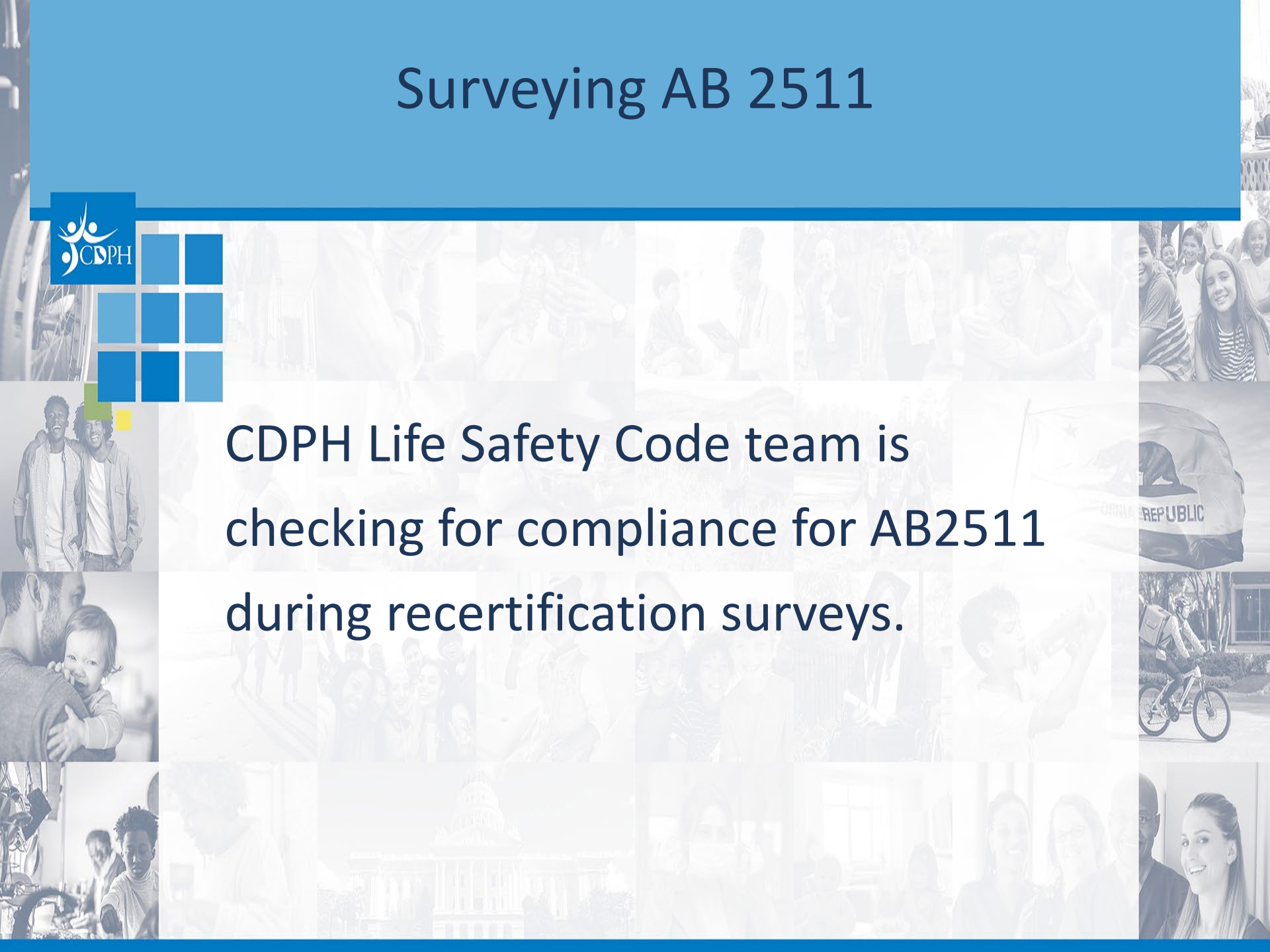
www.cdph.ca.gov



Surveying AB 2511



CDPH Life Safety Code team is checking for compliance for AB2511 during recertification surveys.



Assessment



- We will ask for a copy of the assessment submitted to HCAI.
- Is the facility complying with the plan?

Alternative Power Source

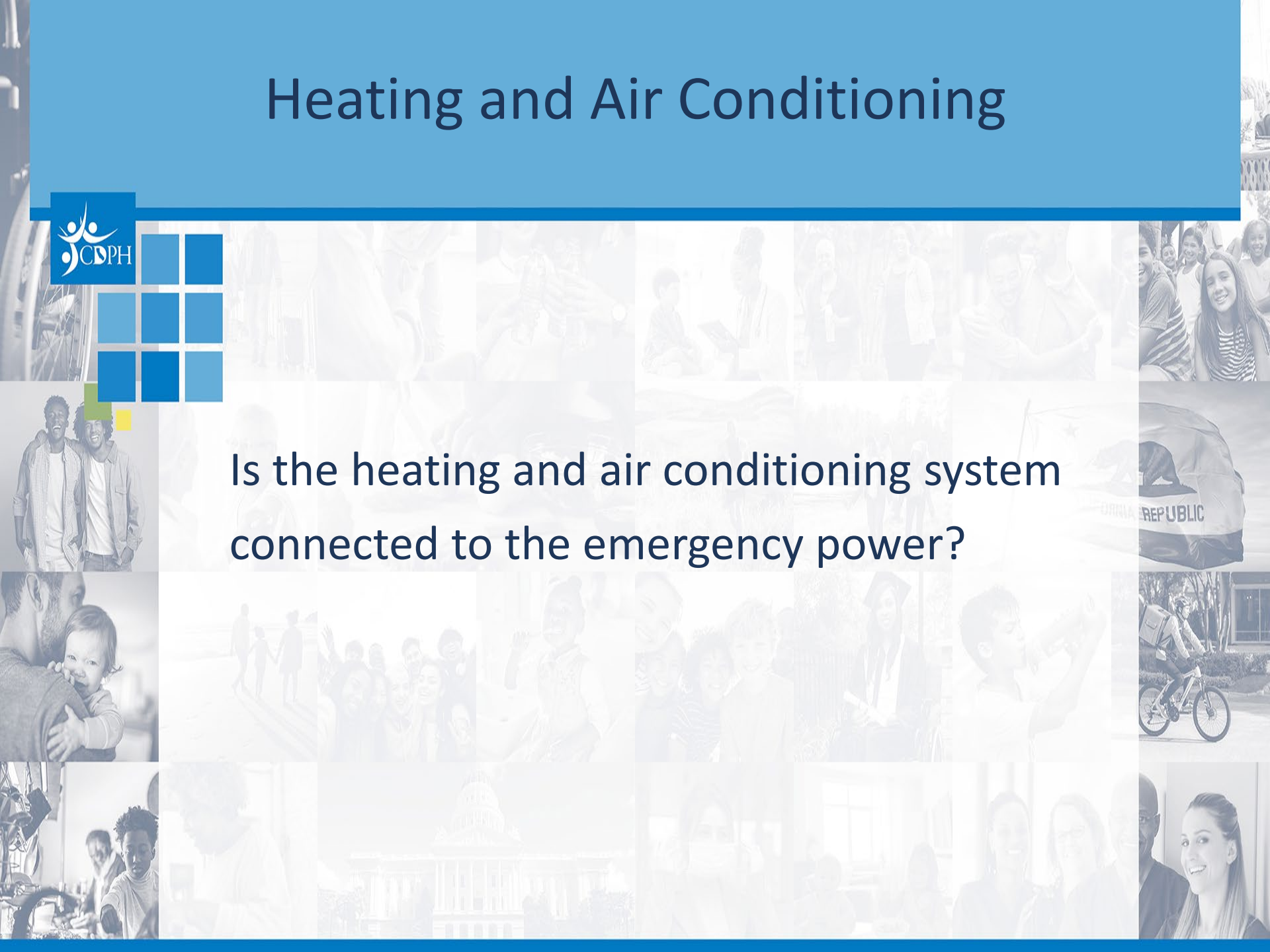


- What kind of alternative power source does the facility have?
- Is there sufficient power to keep the facility running for 96 hours?
- Can the facility provide copies of contracts/agreements with providers to fill in the gap?

Heating and Air Conditioning



Is the heating and air conditioning system connected to the emergency power?





AB 2511 Emergency Power Temporary Solutions

CAHF Disaster Preparedness Program

Loss of Utilities

- Identify extent of the outage and expected duration if possible (frequent checks of utility company website or app, phone call to utility, report outage immediately to utility company if not planned).
- Maintain safe environment of care (If outage is expected to last long enough that indoor temperatures cannot be controlled deploy temporary cooling/heating measures, activate contracts or agreements with temporary equipment vendors).
- Maintain resident care capabilities (pharmaceuticals are safely stored and dispensed, red plugs for medical equipment).

Loss of Utilities (cont.)

- Minimize impact on operations (Have down time procedures available for loss of electronic health record [EHR], human resources [HR]/time keeping, admissions/discharges, etc.).
- Communicate the situation status to residents and staff
- Call 9-1-1 if the power outage causes or threatens a medical emergency (e.g., power is lost to a ventilator).

Loss of Utilities (cont.)

- If the utility outage poses a risk to the safety of residents, staff or visitors, take actions to reduce/eliminate the threat without jeopardizing the safety of staff
- Activate facility's emergency operations plan (EOP) and appoint a facility incident commander (IC) if warranted.
- Account for all residents.
- Comfort and assess residents for signs of distress.

Loss of Utilities (cont.)

- Notify appropriate state survey agency to report an unusual occurrence and activation of facility's EOP.
- To the extent possible, mobilize emergency back-up power generators and necessary fuel for operation. Check with maintenance and security to ensure generators are operational.
- Take all reasonable steps to protect food and water supplies and maintain a safe environment of care for residents and staff.

Resources and Contact Information

- <https://www.cahfdisasterprep.com/utilityfailure>
- <https://www.cahfdisasterprep.com/powershutoff>
- <https://www.cahfdisasterprep.com/mou>
- https://www.cahf.org/Portals/29/DisasterPreparedness/NHICS/UtilityFailureIRG_2017.pdf

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Three Things to Do

- California SNFs: Ensure the On-Site Source of Power Assessment has been completed and submitted to HCAI.
- Obtain contracts/agreement with providers to fill the gaps if the nursing home does not yet have 96 hours of alternate power and temporary measures to provide heating and cooling.
- Ensure generators are operational.

Questions?





Thank you!

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CMS Disclaimer

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