

ORDINANCE NO. 4231

AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF HUNTINGTON BEACH
ADDING SECTION 17.48.050 TO THE HUNTINGTON BEACH
MUNICIPAL CODE CHAPTER TO AMEND SUBSECTION A OF SECTION 690.13 OF THE
CALIFORNIA ELECTRICAL CODE

WHEREAS, Section 17958.5 of the California *Health and Safety Code* permits the City to make changes or modifications to the California Electrical Code as such changes or modifications are reasonably necessary because of local climatic, geographic or topographical conditions; and

The Fire Chief of the City of Huntington Beach has recommended amending the California Electrical Code to require that an exterior disconnect switch be part of the installation of new photovoltaic and energy storage systems to allow fire personnel to safely de-energize these systems from the exterior of the building; and

This amendment to the Electrical Code is necessary to meet local climatic, geographical and topographical conditions in the City of Huntington Beach.

The City Council of the City of Huntington Beach does hereby find and ordain as follows:

SECTION 1. **Findings.** Local jurisdictions may amend the California Building Standards Codes as necessary by making findings that differences caused by local topographical, geographical, and climatic conditions exist in Huntington Beach. In accordance with California Health & Safety Code Section 17958.7, any modifications made by local ordinance must contain findings and be filed, along with the findings thereto, with the California Building Standards Commission. The Fire Chief finds that the amendment to the Electrical Code set forth in Section 2 is necessary due to the following findings relating to local conditions:

A. Climatic Conditions:

1. Hot, dry, high velocity winds (called Santa Ana winds) are common in the area. These winds reduce the relative humidity causing severe drying of the vegetation and common building materials. These dry conditions predispose the area to large destructive fires (conflagration).
2. Dry climatic conditions can create the potential for the rapid spread of fire in both vegetation and structures. The addition of an exterior disconnect switch to new photovoltaic and energy storage systems will supplement the Fire Department response by providing immediate protection for the building occupants and by containing or controlling the spread of fire.
3. The southern boundary of the City is along the Pacific Ocean. Winter storms and tropical storms come into the City from the ocean. These storms can create high winds and large ocean waves, which can cause flooding in large areas of the city. Along part of the eastern boundary of the City is the Santa Ana River. This river originates in the San Bernardino Mountains and flows through many communities until it terminates in the ocean at the Huntington Beach/Newport Beach border. The river is contained in a manmade channel.

Heavy rainfall and urban runoff has potential to cause flooding in the flood plain due to the river and/or its tributaries.

B. Geological Conditions:

1. The City of Huntington Beach is located in an area of high seismic activity. The Newport-Inglewood Fault runs through the City, which is the largest of several faults. Studies reveal that this fault has the probability of generating a 6.6 magnitude earthquake. Because of the population density and the number of structures in the City, the risk of life loss and property damage due to earthquake activity is considerable. Experts predict a major earthquake in our area within the next 50 years. This situation creates the need for both additional fire protection measures and automatic on-site fire protection for building occupants since a multitude of fires may result from breakage of gas and electric lines as a result of an earthquake. As noted by "Planning Scenario on a Major Earthquake on the Newport-Inglewood Fault Zone, 1988, State Department of Conservation," page 59, "unfortunately, barely meeting the minimum earthquake standards of building codes places a building on the verge of being legally unsafe.
2. Much of the City is in a methane district due to the natural detritus of organic matter in the Huntington Beach Oil Field, which was first discovered in 1920 and from which there was approximately 2.4 million barrels of oil and approximately 1.1 million cubic feet of gas produced in 2015. This hazard presents a unique threat to the City and has the potential to cause fire, or environmental emergencies.
3. Significant areas of Huntington Beach contain corrosive soils that reduce the expected usable life of water services when metallic pipes are exposed to these soils.
4. According to the City Hazard Mitigation Plan (2017), large portions of the City are in the tsunami hazard zone and subject to inundation. These flood conditions impact the response and activity level of the Fire Department or cause damage to the structures and infrastructures.
5. There are no dams in Huntington Beach. However, the city is on the floodplain on the Santa Ana River. There are two dams, Prado Dam and Seven Oaks Dam, which are located upstream of Huntington Beach on the Santa Ana River. Failure of either dam could cause damage in Huntington Beach. The primary threat to Huntington Beach is from the failure of Prado Dam. If the dam were to experience a partial or complete failure event, the resulting flood would likely overtop the banks of the Santa Ana River. Depending on the amount of water released, the failure of Prado Dam could results in floodwaters inundating all of Huntington Beach except for the area roughly bordered by Beach Boulevard, Talbert Avenue, Edwards Street, and the shore.
6. Traffic and circulation congestion presently existing in the City of Huntington Beach often places fire department response time to fire occurrences at risk. This condition will be exacerbated by any major disaster, including any earthquake wherein damage to the highway system will occur. This condition makes the need for additional on-site protection for property occupants necessary.
7. Untreated wood roofs cause or contribute to serious fire hazard and to the rapid spread of fires when such fires are accompanied by high winds. Pieces of burning wooden roofs

become flying brands, are carried by the wind to other locations, and thereby spread fire quickly. Past Grand Jury Report findings support this concern.

SECTION 2. AMENDMENT. Section 17.48.050 is added to Chapter 17.48 of the Huntington Beach Municipal Code amending Subsection A of Section 690.13 of the California Electrical Code to read as follows:.

"17.48.050 Section 690.13(A)-Amended

(A) Location. The means to disconnect a photovoltaic and electrical energy storage system shall be installed at a readily accessible location on the exterior of the building. A visible-open, lockable AC disconnect shall be located within three (3) feet of the meter, photovoltaic disconnect, or as required by the Building or Fire Code Official.

SECTION 3. This Ordinance shall become effective thirty (30) days from the date of its adoption.

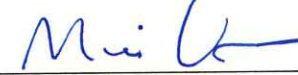
PASSED AND ADOPTED by the City Council of the City of Huntington Beach at a regular meeting thereof held on the _____ day of _____, 2021.

Mayor

ATTEST:

APPROVED AS TO FORM:

City Clerk



City Attorney

REVIEWED AND APPROVED:

INITIATED AND APPROVED:

City Manager

Fire Chief

INITIATED AND APPROVED:

Director of Community Development

LEGISLATIVE DRAFT

HBMC Chapter 17.48 ELECTRICAL CODE

17.48.050 Section 690.13 (A)-Amended

690.13 Photovoltaic System Disconnecting Means. Means shall be provided to disconnect the PV system from all wiring systems including power systems, energy storage systems, and utilization equipment and its associated premises wiring.

A. Location. ~~The PV system disconnecting means shall be installed at a readily accessible location.~~ The means to disconnect a photovoltaic and electrical energy storage system shall be installed at a readily accessible location on the exterior of the building. A visible-open, lockable AC disconnect shall be located within three (3) feet of the meter, photovoltaic disconnect, or as required by the Building or Fire Code Official.

Informational Note: PV systems installed in accordance with 690.12 address the concerns related to energized conductors entering a building.