



## Energy Storage is a Safe and Proven Asset Class

California has safely deployed thousands of megawatts of energy storage. Energy storage devices are safely deployed in our phones, electric vehicles, and computers, and increasingly, our electric grid.

CESA's Energy Storage Safety Commitment:

*CESA is committed to the safe deployment of all energy storage resources in California so that people, property and the environment are protected from harm. CESA supports the adoption of energy storage safety standards in California, consistent with industry and national standards, to prevent or mitigate hazards via proactive, collaborative stakeholder effort. CESA works to advance a culture that values safety, and CESA's Mission Statement incorporates safety as a core value. We aim to ensure that our members are informed and have access to industry best practices for safely deploying energy storage technologies. In addition, CESA encourages its members to share transferable lessons learned for the continual improvement of energy storage safety standards.*

CESA is committed to safety throughout the energy storage life cycle

CESA is a non-profit membership-based advocacy group committed to advancing the role of energy storage in the electric power sector through policy, education, outreach and research.

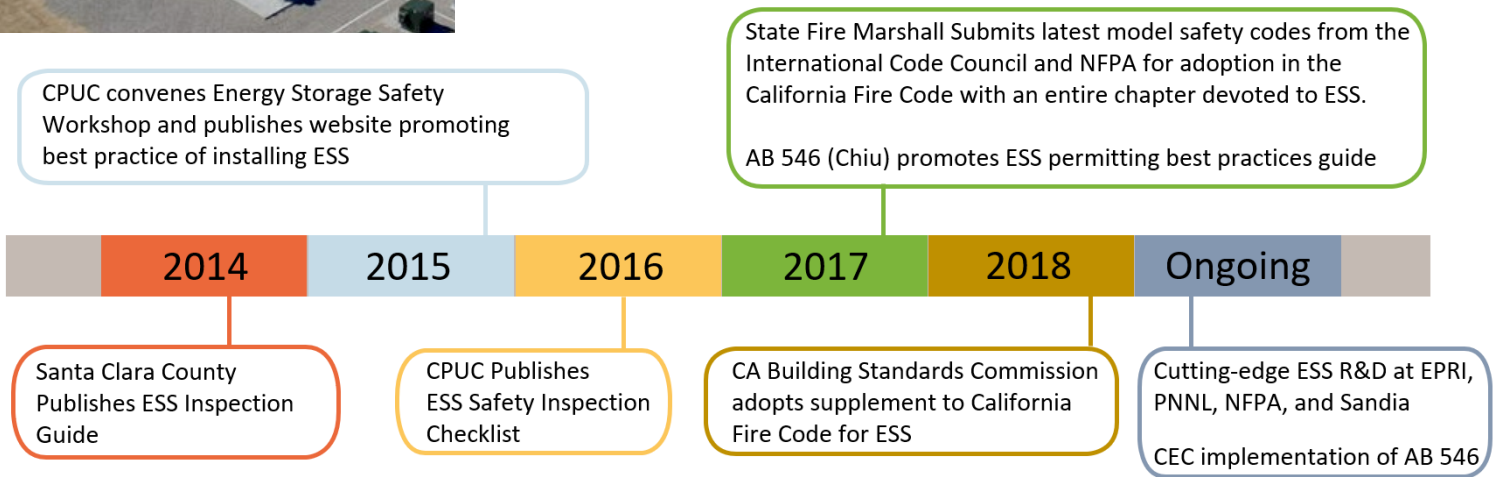


Contact us:  
[info@storagealliance.org](mailto:info@storagealliance.org)  
[www.storagealliance.org](http://www.storagealliance.org)



# Energy Storage Safety is a CESA Priority

- CESA successfully advocated for the creation of a standalone NFPA code dedicated to ESS installation - NFPA 855.
- CESA supports NFPA's development of a free online ESS safety training tool for first responders available at NFPA.org.
- CESA has an active, dedicated Energy Storage Safety Working Group.



## Energy storage is subject to many incident prevention and hazard mitigation standards

Safety		Seismic and Enclosure Integrity	
<b>UL 9540</b>	Safety for Energy Storage Systems and Equipment	<b>ANSI/IEC 60529</b>	Degrees of Protection Provided by Enclosures (IP Code)
<b>UL 1973<sup>1</sup></b>	Batteries for Use in Light Electric Rail Applications and Stationary Applications	<b>IEEE 693-2005</b>	IEEE Recommended Practice for Seismic Design of Substations
<b>UL 1642<sup>2</sup></b>	Standard for Lithium Batteries	Environmental	
<b>IEC 62619<sup>3</sup></b>	Secondary cells and batteries containing alkaline or other non-acid electrolytes - Safety requirements for secondary lithium cells and batteries, for use in industrial applications	<b>EU Battery Directive</b>	2006/66/EC of the European Parliament and of the Council of 6 September 2006 on batteries and accumulators and waste batteries and accumulators and repealing Directive 91/157/EEC
<b>UN 38.3</b>	UN Recommendations on the Transport of Dangerous Goods Manual of Test and Criteria	<b>RoHS</b>	2011/65/EU Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)
<b>IEC 61508<sup>4</sup></b>	Functional Safety of Electrical/Electronic/Programmable Electronic Safety-related Systems	<b>Proposition 65 (CA)</b>	Proposition 65 Safe Drinking Water and Toxic Enforcement Act of 1986
<b>IEC 62040-1</b>	Uninterruptible power systems (UPS) – Part 1: General and safety requirements for UPS	<b>China RoHS II</b>	Management Methods for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Products Order No. 32 (China RoHS II)
<b>CE – Conformity</b>	CE Marking - European Conformity, Safety and EMC	<b>REACH</b>	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
<b>NFPA 70E</b>	Standard for Electrical Safety in the Workplace		
<b>NFPA 70</b>	(NEC) National Electric Code (whenever applicable)		
<b>ANSI/IEEE C-2</b>	National Electrical Safety Code (NESC)		
<b>ANSI/IEC 60529</b>	Degrees of Protection Provided by Enclosures (IP Code)		
<b>IEC/UL 60950-1<sup>5</sup></b>	Information technology equipment - Safety - Part 1: General requirements		

1 Applicable to battery modules and battery racks only  
 2 Applicable to battery cells only  
 3 Applicable to battery cells, modules and battery racks only  
 4 Evaluation performed on Battery Management System (BMS) only, in support of UL 1973, UL 9540 and IEC 62619 certification  
 5 Applicable to AEROS Controls Unit only