

## ORDINANCE NO. 2025-

An Ordinance amending Chapter 28 of the Solano County Code to adopt and implement regulations specific to battery energy storage systems within the unincorporated territory of the County of Solano (ZT-25-\_\_\_).

### Section 1.

Section 28.01 of Chapter 28 of the Solano County Code is amended to add the following definition:

**Battery Energy Storage System (BESS)**. An electrochemical device, with a rated capacity of equal to or greater than 1,000-kilowatt hours (1 megawatt hour), that charges or collects energy from the grid or a generation facility, stores that energy, and then discharges that energy at a later time to provide electricity or other grid services when needed.

### Section 2.

Article II of Chapter 28 of the Solano County Code is amended as follows:

**TABLE 28.21A TABLE OF ALLOWED USES**

A = Allowed by right, AP = Administrative Permit, MUP = Minor Use Permit, UP = Use Permit, E = Exempt, --- = Prohibited						
ALLOWED USES* *See Definitions Section 28.01	Permit Requirements				Land Use Regulations** **See Section 28.70.10	
	A-40	A-80	A-20	A-160		
COMMUNICATION AND INFRASTRUCTURE USES						
B. INFRASTRUCTURE USES						
Battery Energy Storage System	UP	UP	---	UP	28.83	

**TABLE 28.41A TABLE OF ALLOWED USES**

A = Allowed by right, AP = Administrative Permit, MUP = Minor Use Permit, UP = Use Permit, E = Exempt, - - - = Prohibited							
ALLOWED USES* *See Definitions Section 28.01	Permit Requirements						Land Use Regulations** **See Section 28.70.10
	C-H	C-N	C-R	C-R-L <sup>(6)</sup>	C-S	C-O	
<b>COMMUNICATION AND INFRASTRUCTURE USES</b>							
<b>B. INFRASTRUCTURE USES</b>							
Battery Energy Storage System	---	---	---	---	UP	---	28.83

**TABLE 28.42A TABLE OF ALLOWED USES**

A = Allowed by right, AP = Administrative Permit, MUP = Minor Use Permit, UP = Use Permit, E = Exempt, - - - = Prohibited
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ALLOWED USES* *See Definitions Section 28.01	Permit Requirements				Land Use Regulations** **See Section 28.70.10
	M-L	M-G- 1/2	M-G-3	I-WD <sup>8</sup>	
<b>COMMUNICATION AND INFRASTRUCTURE USES</b>					
<b>B. INFRASTRUCTURE USES</b>					
Battery Energy Storage System	UP	UP	UP	UP	28.83

**TABLE 28.43A TABLE OF ALLOWED USES**

A = Allowed by right, AP = Administrative Permit, MUP = Minor Use Permit, UP = Use Permit, E = Exempt, - - - = Prohibited		
ALLOWED USES* *See Definitions Section 28.01	Permit Requirements	Land Use Regulations** **See Section 28.70.10
	I-AS	
COMMUNICATION AND INFRASTRUCTURE USES		
B. INFRASTRUCTURE USES		
Battery Energy Storage System	UP	28.83

### Section 3.

Section 28.78.20(B)(9) of Article III of Chapter 28 of the Solano County Code is amended as follows:

#### **28.78.20 INFRASTRUCTURE USES**

##### **B. Specific Requirements**

##### **9. Utility Facilities or Infrastructure, outside of R.O.W.**

All utility accessory uses and structures for transmission or distribution of electricity, gas, water, oil, gasoline, telephone, television or other utility services may be permitted in any district. Utility accessory uses and structures include, but are not limited to, compression, drying, regeneration stations, substations, or pumping stations. Battery Energy Storage Systems are not regulated as Utility Facilities or Infrastructure for purposes of this Chapter.

### Section 4.

Section 28.83 is added to Article III of Chapter 28 of the Solano County Code as follows:

#### **28.83 BATTERY ENERGY STORAGE SYSTEMS**

##### **A. Purpose**

Battery Energy Storage System regulations are adopted with the intent of advancing and protecting the public health, safety, and welfare of the community by establishing regulations for the installation and use of BESS. The regulations herein are intended to protect the health, safety, welfare, and quality of life for the general public, to ensure compatible land uses in the

areas affected by energy storage facilities, and to mitigate the impacts of energy storage facilities on the environment.

## **B. Definitions**

“National Fire Protection Association” (NFPA) is a nonprofit organization that develops and publishes consensus codes and standards intended to minimize the risk and effects of fire by establishing criteria for building, processing, design, service, and installation in the United States and internationally.

“NFPA 855,” the *Standard for the Installation of Stationary Energy Storage Systems*, is a set of comprehensive guidelines for the safe installation of stationary energy storage systems, including those with lithium batteries. These standards address various aspects of installation to mitigate fire and explosion risks associated with energy storage technologies. It covers topics such as system design, construction, operation, and maintenance to ensure safety and reliability.

“UL 9540” is a standard for Energy Storage Systems and Equipment, designed to ensure the safety of these systems and covers their construction, performance, and testing requirements. UL 9540 certification intends to verify that energy storage systems, such as batteries and related equipment, meet safety standards to prevent hazards related to electrical, mechanical, and environmental conditions.

“IEEE” is the Institute of Electrical and Electronics Engineers is a global professional organization dedicated to advancing technology for the benefit of humanity. IEEE develops and maintains international standards in various fields of electrical and electronic engineering, computer science, and related disciplines.

“Front-of-the-meter (FTM) Battery Energy Storage System” refers to a Battery Energy Storage System (BESS) that is directly connected to the transmission or distribution grid and primarily serves wholesale market functions such as grid support, frequency regulation, or energy arbitrage.

“Behind-the-meter (BTM) Battery Energy Storage System” refers to a Battery Energy Storage System (BESS) installed on the customer’s side of the utility meter. These systems are designed to support energy use by providing backup power, demand charge management, load shifting, or renewable energy integration.

“Commissioning” is a systematic process that provides documented confirmation that a battery energy storage system functions according to the intended design criteria and complies with applicable code requirements.

“Decommissioning” is the process of removing equipment and other infrastructure associated with a project and restoring the site for viable reuse consistent with the zoning district.

“Thermal runaway” refers to an uncontrollable, self-sustaining exothermic chain reaction within a battery energy storage system (BESS), initiated by a failure mechanism (e.g., internal short circuit, overcharging, physical damage, or thermal exposure). This reaction results in a rapid increase in cell temperature, leading to the release of flammable electrolytes, generation of toxic gases (e.g., hydrogen fluoride, carbon monoxide), and potential cascading failures to adjacent cells. If unmitigated, thermal runaway may cause fire, explosion, or hazardous material release, posing risks to public safety, property, and the environment.

“Prime agricultural land” means land classified as 'Prime Farmland,' 'Farmland of Statewide Importance,' or 'Unique Farmland' by the California Department of Conservation’s Farmland Mapping and Monitoring Program (FMMP), or land meeting the criteria for Prime Farmland under the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) guidelines. This includes land capable of producing sustained high yields of agricultural crops when managed and irrigated according to modern farming practices, with a history of agricultural use in at least 3 of the last 5 years. Such land shall comprise contiguous areas of 40 acres or more, or smaller parcels if adjacent to actively cultivated prime agricultural lands. Land classified by FMMP as 'Urban,' 'Built-Up,' or 'Other Land' is excluded from this definition.

### **C. Applicability**

1. The requirements of Section 28.83 shall apply to all front-of-the-meter Battery Energy Storage Systems in the unincorporated territory of Solano County that have a rated nameplate capacity equal to or greater than 1,000 kilowatt hours (1 megawatt hour).
2. The requirements of Section 28.83 do not apply to behind-the-meter BESS supporting for residential, commercial, agricultural, and industrial uses.

### **D. Land Use and Siting Standards.**

1. **Zoning Districts:** Battery Energy Storage Systems may be permitted only in zoning districts that expressly allow BESS under Article II (Districts and Allowable Uses) of this Chapter.
2. **Natural Disaster Zone Exclusion:** BESS facilities will not be permitted in High, or Very High Fire Hazard Severity Zones as determined by Cal Fire within a State Responsibility Area or a Local Responsibility Area. Applicants must submit mapping of the proposed site demonstrating the site does not fall under any of the categories mentioned in this section. If the maps listed are updated prior to permit issuance, the application must be amended to reflect the most recent maps.
3. No BESS facility shall be permitted within a FEMA designated floodplain unless the parcel or developed area where the BESS is to be installed shall be raised to at least two feet above the Base Flood Elevation (BFE) through engineered fill or equivalent flood protection measures. A Conditional Letter of Map Revision (CLOMR) shall be obtained from FEMA prior to site grading or fill, demonstrating that the project will not result in an increase in BFE or adverse floodplain impacts, demonstrating that the proposed project meets all applicable NFIP requirements.
4. **Prime Ag Land Exclusion:**
  - a. Option 1: BESS facilities are not permitted on prime agricultural land, unique agricultural land, or land of statewide importance.
  - b. Option 2: BESS facilities located on prime agricultural land can only occupy 45% of a parcel's prime agricultural land.
  - c. Option 3: BESS facilities located on prime agricultural land must demonstrate a benefit to local agriculture, nearby farmers, or food production.

5. **Setbacks:** Battery Energy Storage Systems shall comply with all state and NFPA 855 requirements related to setbacks and buffers and shall also meet the following County requirements. Where NFPA 855, state, and County standards differ, the more stringent standard shall apply. These setback requirements can be increased at the discretion of the Director of Resource Management based on technical studies required as part of the application.

**Option 1:**

- (1) The minimum distance of a BESS module from any existing sensitive receptor as defined in California Health and Safety Code § 42705.5(a)(5) is 300 ft.
- (1) The minimum setback of a BESS from the front property line is 100 ft.
- (1) The minimum setback of a BESS from the side or rear property line is based on the following formula:
  - (a) If the side or rear property line is less than 100 ft long, the minimum setback from the property line is 25 ft.
  - (b) If the side or rear property line is between 100 ft and 500 ft long, the minimum setback is 20% of the property line.
  - (c) If the side or rear property line is longer than 500 ft, the minimum setback is 100 ft.
- (1) Property owners and residents residing on the same parcel as a BESS facility can exempt their buildings from distance requirements 3b and 3c with written approval contained in the project application.

**b. Option 2:**

- (1) No specific requirements, rely on NFPA 855 and state requirements

**c. Option 3:**

- (1) The minimum setback from all property lines is 50 ft.

**d. Option 3:**

- (1) The minimum setback from all property lines is 300 ft.

**e. Technical studies and consensus from first responders, safe distance setback for incident command center**

**f. 50 ft setback around facility for navigation, space on front of incident command center, 25 feet of accessible road,**

**g. Option 4:**

- (1) The minimum setback of a BESS from any residential property line is 100 ft.
- (1) The minimum setback of a BESS from any non-residential structure is 100 ft.
- (1) The minimum setback of a BESS from the front property line is 100 ft.
- (1) The minimum setback of a BESS from the side or rear property line is based on the following formula:
  - (a) If the side or rear property line is less than 100 ft long, the minimum setback from the property line is 25 ft.
  - (b) If the side or rear property line is between 100 ft and 500 ft long, the minimum setback is 20% of the property line.
  - (c) If the side or rear property line is longer than 500 ft, the minimum setback is 100 ft.
- (1) Property owners and residents residing on the same parcel as a BESS facility can exempt their buildings from setback requirements 3b and 3c with written approval contained in the project application.

**h. Option 5 (Staff Recommendation):**

- (1) If a risk of thermal runaway is determined as defined in E1 the following setback standards apply:

- (a) The minimum distance of a BESS module from any existing sensitive receptor as defined in California Health and Safety Code § 42705.5(a)(5) is 300 ft.
  - (b) A 30-foot-wide fire rated access road must encircle the entire module array inside security perimeter fence. There must be at minimum two entrances to the access road.
  - (c) Setbacks from the front property line to the first BESS module are minimum 100 feet.
  - (d) Setbacks from the rear and side property line to the first BESS module are minimum 50 feet.
  - (e) Property owners and residents residing on the same parcel as a BESS facility can exempt their buildings from distance requirements 3b and 3c with written approval contained in the project application.
  - (1) If no risk of thermal runaway is determined as described in E1, state standards and a minimum setback of 20 feet from all property lines from the first BESS module
6. **Security and Screening:** The following security and screening requirements are applicable to all BESS projects:
- a. The facility shall have a non-scalable and transparent perimeter fence of at least 10 feet in height. The perimeter fence shall have at minimum two entrance gates equipped with a rapid access system chosen in consultation with the fire agency with jurisdiction over the project site.
  - b. The facility shall be equipped with a security system to prevent break-ins including cameras and barbed wire that is not visible from public roads.
  - c. The facility shall comply with NFPA 855 specifications related to barriers and buffering.
  - d. BESS modules shall not be visible from any adjacent street, use or building.
  - e. Random security patrols to monitor site perimeter shall be conducted 2 times a day, with at least 8 hours between patrols.
  - f. Extend signage location requirements beyond BESS to include perimeter fences or security barriers and include a site map. Signage shall contain 24-hour emergency contact information, product description, site owner and hazard warnings. Signage or maps should identify isolation distances that response personnel shall maintain from BESS during an emergency. Signage shall be provided for grid-interactive BESS operating in parallel with other power generating sources. Signage shall be provided indicating explosion hazard zones. Signage must be compliant with NFPA 704 standards.
7. **Sound Levels:** The average noise generated from the BESS, its components, and associated ancillary equipment, measured at the nearest building, lot line that can be built upon, or public way, shall not exceed 65 decibels.
8. **Hours of Construction:** Any construction related to the BESS facility shall only occur within the hours of 7:00 a.m. and 6:00 p.m. Monday through Friday.
9. **Below Grade Interconnection:** Outgoing electrical feeders and connections shall be below-grade except as otherwise required by law.

**10. Site Plan:** A site plan is required and shall include the following information at minimum. Additional information can be requested by the County:

- a. Property lines and physical features, including roads, for the project site.
- b. Proposed changes to the landscape of the site, grading, vegetation clearing and planting, exterior lighting, and screening vegetation or structures.

#### **E. Battery Chemistry Technology**

1. **Best Available Technology:** BESS facilities shall utilize commercially available battery technologies that minimize the risk of thermal runaway. While the County does not prescribe specific battery chemistries, applicants are strongly encouraged to select technologies with no or low thermal runaway risk. All BESS applications must include third party written documentation evaluating whether the proposed battery technology poses a risk of thermal runaway.
  - a. If the proposed battery technology is determined by the County to present a thermal runaway risk, the applicant shall submit a comprehensive technology comparison analysis. This analysis must include, at a minimum: A techno-economic comparison of alternative battery technologies; an assessment of hazardous chemicals involved in the event of thermal runaway, qualitative and quantitative risk analysis of thermal runaway, A thermal runaway plume modeling analysis and any additional information deemed necessary by the Director of Resource Management.
  - b. If the proposed battery technology is determined by the County to present no risk of thermal runaway, applications are exempt from the following requirements: Chapter 28.83 D2, F3, F4, G1f, I1b4, I1b10, I1b12, I1b19. Applicants will instead submit the following:
    - (1) Third-party verification of system stability (e.g., material safety analysis, abuse tolerance testing results).
    - (1) Basic chemical hazard documentation to demonstrate no risk of hazardous emissions or runaway propagation.
2. If a risk of thermal runaway is associated with the utilized battery chemistry technology as determined by the County, applicants must submit a comprehensive technology comparison analysis. The comprehensive technology comparison analysis shall include a techno-economic analysis, an analysis of hazardous chemicals associated with thermal runaway, an analysis of risk of thermal runaway, a plume analysis of thermal runaway, and any other relevant information as determined by the Director of Resource Management.
3. **Owner Responsibility for Thermal Runaway:** Facility owners must reimburse emergency service agencies for all costs associated with thermal runaway response. In the event of thermal runaway, the fire agency having jurisdiction over the site in coordination with subject matter experts will conduct a root cause analysis, with costs borne by the facility owner. Facility owner must reimburse costs of an assessment of damage to the environment, agriculture, residents, and businesses conducted by a third party selected by the County and all testing, damages and remediation conducted by

responsible entities that is required to return the site to the previous condition after thermal runaway incident or other hazardous incident.

#### **F. Impact Mitigation Measures**

An applicant may be subject to additional mitigation at the discretion of the County. If a determination is made by the Director of Resource Management that the proposed battery chemistry does not have a risk of thermal runaway, the Director of Resource Management can exempt an applicant from the following requirements including but not limited to:

1. Annual contribution as determined by the County for fire response equipment as deemed necessary by the Solano County Office of Emergency Services. System manufacturer shall provide list of recommended equipment for addressing thermal runaway incident.
2. Annual contribution as determined by the County for training for all Solano County emergency response agencies and mutual aid partners.
3. Contribution as determined by the County to radio interoperability.
4. Contribution as determined by the County to support a consolidated fire and medical public safety answering point.
5. Point of sale for all project equipment located in unincorporated Solano County.

#### **G. Commissioning**

1. **Commissioning Plan:** Prior to issuance of a building permit, BESS applicants shall submit a commissioning plan that contains at minimum:
  - a. An electrical diagram detailing the BESS layout, associated components, and electrical interconnection methods, with all National Electrical Code compliant disconnects and over current devices.
  - b. A preliminary equipment specification sheet that documents the proposed BESS components, inverters and associated electrical equipment that are to be installed. A final equipment specification sheet shall be submitted prior to the issuance of the building permit.
  - c. Name, address, and contact information of proposed or potential system installer, the owner and operator of the BESS facility, and liability insurance provider.
  - d. A commissioning report meeting the requirements of NFPA 855 shall be submitted prior to final inspection.
  - e. Large-scale fire testing reports, per UL9540A, of the batteries used in the Energy Storage Systems shall be provided for cell, module and unit levels.
  - f. Documentation that separate fire protection permits are obtained per battery enclosure.
  - g. Documentation that separate fire alarm permits have been obtained based on the proposed design for monitoring all the fire suppression systems.

#### **H. Cybersecurity**

1. BESS facilities must comply with Solano County Office of Emergency Services “*Emergency Response Plan Guidance*” document.

#### **Safety Standards and Certifications**



## 1. Safety Requirements

a. The following must be included in a BESS application submittal:

1. An emergency response plan that includes site access, equipment locations and potential hazards for responders in addition to any other requirements.
2. A report documenting coordination to-date with emergency response organizations in developing the required emergency response plan in compliance with Solano County Office of Emergency Services' *"Emergency Response Plan Guidance"* and all applicable state laws
3. A plan for offering site-specific training to the fire service and emergency personnel prior to commencing operation.
4. A hazard mitigation analysis if required by NFPA 855.
5. A comprehensive technology comparison analysis, if applicable under Section 28.83(E).
6. A financial assurance plan, including a battery cell manufacturer responsibility agreement and liability insurance policy for thermal runaway events and other hazardous incidents.
7. A description of cybersecurity risks and mitigation measures associated with BESS modules, the Battery Management System, and active and passive fire and explosion detection systems.
8. Submitted plans and documents must be under the signature and seal of CA Licensed design professional.
9. HMA, Fire Risk Analysis, fire suppression and deflagration protection analysis submittals shall be from a CA Licensed Fire Protection Engineer approved by the emergency response agency with jurisdiction over the project site per California Fire Code (CFC) Section [A]104.7.2 as it may be amended. Submittals will require signature and seal.
10. Fire protection system submittals such as fire suppression and water supply shall include a C-16 - Fire Protection Contractor of record.
11. Fire alarm systems, fire detection, gas detection shall include a C-10 - Electrical Contractor of record.
12. No batteries over 30% State of Charge (SOC) shall be brought to a site until necessary fire protection and other safety systems have been commissioned and accepted. Documentation on the SOC shall be provided prior to batteries being brought to a site.
13. Final approvals of any BESS or safety related equipment that has routine maintenance requirements according to the code or manufacturer's instructions will not receive approval inspections until a maintenance plan has been submitted and approved by emergency response agency with jurisdiction over the project site. Maintenance must comply with NFPA 68, NFPA 69, and NFPA 72.F
14. Once an application is accepted for review, any updated submittals during the period of review, installation and final inspections must either be signed and sealed by the design professional of record, or a cover letter signed and sealed by the design professional of record shall accompany the submittal, attesting that the updated information conforms to the overall design and code requirements.
15. Documentation of a dedicated fire water supply is required. This requirement can be waived if the Director of the Department of Resource Management agrees that a water supply is not required. The request to omit a water supply

shall be in accordance with NFPA 855 and must be validated by the approved Hazard Mitigation Analysis. Where municipal water supply is not available, and a water supply is determined necessary, the provided water supply quantity shall be determined by the Hazard Mitigation Analysis. Rural water supply installations shall comply with applicable codes and standards such as NFPA 1142, NFPA 22, etc.

16. Applicant provides funding to Air District with jurisdiction over the project site to establish 10 or more permanent air monitors, at distances and elevations determined by the Air District with jurisdiction over the project site to detect harmful constituents, hazardous to human life or wildlife, emitted as a result of thermal runaway as determined by the Air District with jurisdiction over the project site. The number of sensors deployed will be determined by the Air District with jurisdiction over the project site. If a thermal runaway incident occurs or air monitors detect hazardous constituents, a County staff contact as determined by the County will be notified. After an incident, related to BESS thermal runaway or otherwise, County staff will have access to the raw, unfiltered data from the air monitors.
  17. BESS operator will submit a comprehensive annual report to County staff as designated by the County consisting of but not limited to; the number of threats made to the site, the number of trips of the site security system, the number of hazardous incidents at the site, the number of fire and law responses to the site, soil testing on-site and the surrounding properties for hazardous chemicals existing in the battery system, air monitor results. This list can be supplemented and modified by County staff at any time.
  18. Front-of-the meter BESS modules will not be permitted indoors.
- b.** Applicants must demonstrate that the proposed BESS facility will comply with the latest published version of the NFPA 855, *Standard for Installation of Stationary Energy Storage Systems*, and UL 9540, *Energy Storage System Requirements*, at the date of the submission of the application in addition to any specific requirements set forth herein:
1. Option for BOS: All technical studies, Hazard Mitigation Analysis and planning documents required by SB 38, NFPA 855 and the County must include both a probable scenario of limited thermal runaway and possible scenarios of simultaneous thermal runaway in all site modules at once, and shall address hazards as outlined in the "*Emergency Response Plan Guidance*" to the site and mitigation measures deployed.
  2. Applicants must submit technical studies prepared by a third-party fire protection engineer selected by the County detailing the proposed fire safety features of the design, operation, and use of the BESS. Changes in installation configuration from the initial UL 9540A large scale fire testing, including internal architecture of modules and units will not be accepted unless it is demonstrated that the configuration provides equivalent results. Fire safety features must include mechanisms for maintaining the temperature and humidity ratings of the listing.
  3. Technical studies prepared by a third-party fire protection engineer selected by the County must account for setback requirements and best practices from residential buildings and sensitive receptors.
  4. Technical studies prepared by third party subject matter experts selected by the County must include plume modeling and toxic gas dispersion analysis,

specifically addressing impacts on missions and flight paths of Travis Air Force Base and other Solano County airports.

5. Technical studies prepared by third party subject matter experts selected by the County analyzing the chemical composition of BESS fire emissions and associated human, wildlife and environmental hazards, specifically at which distances emission impacts will be hazardous.
6. Technical studies prepared must analyze runoff of water and fire suppression liquid associated impacts to groundwater, wildlife, waterways, and the environment. Site plans must include a system for capturing runoff water , whose size requirements will be determined in consultation with County and fire agency with jurisdiction over the project site, for water or fire suppressant liquid that may be used by first responders during thermal runaway incidents, and a geo-lined impermeable layer under all BESS modules. The retention basin must be emptied the same day if filled by rain or flood water. If thermal runaway occurs, five samples of fire suppressant liquid or water utilized must be taken by third party subject matter expert selected by the County and mitigation measures will be taken to reduce the adverse impact by third party subject matter experts selected by the County, with the costs being paid for by the site owner.
7. BESS facilities must have active and passive fire and explosion detection systems in place, including gas detectors that meet UL 9540A, NFPA 72, NFPA 68, and NFPA 69 standards. These systems must be able to detect explosive gases, trigger alarms, and initiate ventilation systems to mitigate risks from thermal runaway.
8. Battery Management System (BMS) must be approved and meet manufacturer's specifications. The BMS must transmit signals to an approved location if hazardous conditions are detected. BMS documentation must identify security risks and potential threats, along with the mitigation measures implemented to reduce each identified risk.
9. A combustible gas concentration reduction system compliant with NFPA 855, NFPA 69, UL 9540, and CFC that has undergone UL 9540A testing will have the ability to be automatically activated.
19. Prior to construction, soil testing conducted must include measuring for baseline content for heavy metals present in thermal runaway plume and off gassing. Prior to construction, air quality testing must measure baseline content for heavy metals present in thermal runaway plume and off gassing.
20. Documentation of soil corrosivity at the project site is required. If soil is determined to be highly corrosive by a third-party expert, mitigation measures may be required to combat degradation, annual inspection and report on grounding system condition and maintenance of the grounding system are required.
21. Fault line analysis shall be included and shall include: risks associated with seismic activity, mitigation measures employed, and history of seismic activity at the project area.

## **2. Equipment Certification**

- a. All batteries integrated within the BESS shall be listed under UL 1973. The BESS equipment and configuration shall be listed and tested in accordance with UL 9540A large scale fire testing, either from the manufacturer or by field evaluation.

- b. Communications and Battery Management Systems shall be listed and compliant with UL 1741, UL 9540, IEEE 2686, and IEEE 2688 standards.

**I. Decommissioning.**

1. A BESS applicant shall provide a decommissioning plan with their application submittal. The decommissioning plan shall include any agreements reached between the applicant and other landowners of property on which the BESS is sited that ensures the return of all such properties to a useful condition, including removal of above-surface facilities and infrastructure that have no ongoing purpose. Land that was used for agricultural production within the ten years prior to BESS construction must be restored to a use consistent with underlying zoning.
2. The decommissioning plan shall also include the following:
  1. An overview of the decommissioning process developed specifically for the BESS that is to be decommissioned.
  2. Roles and responsibilities for all those involved in the decommissioning of the BESS and their removal from the site.
  3. Means and methods in the decommissioning plan submitted during the permitting process to be made available at a point in time corresponding to the decision to decommission the BESS.
  4. Plans and specifications necessary to understand the BESS and all associated operational controls and safety systems, as built, operated, and maintained.
  5. A detailed description of each activity to be conducted during the decommissioning process and who will perform that activity and at what point in time.
  6. Procedures to be used in documenting the BESS and all associated operational controls and safety systems that have been decommissioned.
  7. Guidelines and format for a decommissioning checklist and relevant operational testing forms and necessary decommissioning logs and progress reports.
  8. A description of how any changes to the surrounding areas and other systems adjacent to the BESS, including, but not limited to, structural elements, building penetrations, means of egress, and required fire detection and suppression systems, will be protected during decommissioning and confirmed as being acceptable after the system is removed.
3. The decommissioning plan shall include insurance for bankruptcy in the form of a bridge policy. The decommissioning plan shall include, but is not limited to, financial assurance in the form of a bond, a parent company guarantee, or an irrevocable letter of credit, but excluding cash. The amount of the financial assurance shall not be less than the estimated cost of decommissioning the energy facility, after deducting salvage or recycling value, as calculated by a third party with expertise in decommissioning, selected by the County and paid for by the applicant. The financial assurance may be posted in increments as follows:
  - a. At least 50% by the start of full commercial operation.
  - b. At least 100% by the start of the fifth year of commercial operation.
4. Ownership Changes: If the owner of a BESS facility changes, or the owner of the property changes, project approvals shall remain in effect, provided that the successor

owner or operator assumes in writing all the obligations of the project, site plan approval, and decommissioning plan. A new owner or operator of the BESS facility shall notify the Department of Resource Management of such change in ownership or operator within 30 days of the ownership change. A new owner or operator must provide such notification to the Department of Resource Management in writing. The project and all approvals for the BESS facilities will be void if a new owner or operator fails to provide written notification to the Department of Resource Management in the required timeframe and fines may be issued to new owner. Reinstatement of a voided project or approvals will be subject to the same review and approval processes as new BESS applications under this chapter.

5. **Manufacturer Responsibility:** A BESS application must include an agreement stating the battery manufacturer's responsibility to recover and recycle battery cells upon decommissioning.

#### **J. Permitting**

1. **Technical Review Fund:** Applicants will provide two payments established by the County; one payment prior to conducting a pre-application meeting and a second payment with initial application for the County to retain the services of third-party experts to review and process the application, with unused fees reimbursed upon completion of the permitting process or withdrawal of a pending application.
2. **Required Pre-Application Meeting:** Prior to the submittal of an application, the applicant must request a pre-application meeting to allow discussion and review by County staff, public agencies and third-party subject matter experts.
3. **Use Permit Approval:** Applications for BESS permits shall be approved in accordance with Section 28.106 of this Chapter, except that the application shall be scheduled for public hearing before the Planning Commission for its recommendation and then the Board of Supervisors for final action.
4. **Review of Augmentation Plans:**
  - a. BESS applications may include a plan for periodic augmentation to maintain the capacity of the system or nominally increase the capacity of the system for approval as part of the initial site plan application. Any augmentation greater than 10% of initial nameplate capacity will require a Use Permit amendment subject to Planning Commission approval. Augmentation greater than 20% will require a new Use Permit application. Any utilization of reused battery modules shall require the submission of an augmentation plan and is subject to approval by the Director of the Department of Resource Management with concurrence of the Office of Emergency Services.
  - b. The owner of an operating BESS facility shall provide notice to the County Department of Resource Management at least 90 days prior to the commencement of augmentation activities at the site of the BESS facility. The owner shall also provide an updated site plan that identifies any changes resulting from augmentation of the battery energy storage system.