



BATTERY BACKUP SYSTEMS

GENERAL INFORMATION & PERMITTING PROCESS

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Purpose

This handout contains the permit process and submittal requirements for battery backup systems in Sausalito. Battery backup power offers many of the same backup power functions as conventional generators but without the need for refueling. A home battery backup system runs on electricity and can be charged either from the grid or from a rooftop solar panel system. A solar plus storage system can be designed for off-grid backup power, allowing recharging when the grid goes down, which adds an extra layer of security for situations where having access to fuel for a generator may be compromised. **The City Council adopted Resolution No. 5956 which expedites and prioritizes battery backup systems in order to encourage their installation (over standby or portable generator systems).**

Installation Incentives

In order to incentivize the installation of battery backup systems over the installation or use of generators, the City is offering the following:

- Submittal of a battery backup system at any of the four Virtual Service Counter sessions on a weekly basis
- Expedited “over-the-counter” processing in the following manner for backup battery systems:
 - In-house plan check whenever feasible will be based on the complexity of the battery backup system and staffing levels with plan check fees waived.
 - At-cost plan check (City fee waived) for consultant plan check when necessary due to the complexity of the system and staffing levels.
- Prioritization of backup battery system permits in the building permit queue
- Reduction of the Building Permit fee for backup battery installations by 50%
- Virtual inspections of backup system installations (whenever feasible and based on the complexity of the system)

Permitting Process

- Download, fill out and sign a [Building Permit Application](#)
- Download, fill out and sign a [Zoning Permit Application](#)
 - Note: If the subject property is on the [Noteworthy Structures List](#), please check with a Planner during a Virtual Service Counter Appointment to see if a Certificate of Appropriateness is required.
- Digitally submit the following at the [Virtual Service Counter](#):
 - Building Permit and Zoning Permit application
 - Complete set of plans and required documents (see second page)
 - The Virtual Service Counter is open to all those inquiring about or submitting battery backup systems Monday-Thursday. [You must register in advance online.](#)
- Pay the following [fees](#) which are due at time of permit submittal by credit card:
 - Building Permit Plan Check Fees: Waived for in-house plan checks; at cost for consultant plan checks. Ask the Permit Technician for an estimate of Building Permit Fees which will be reduced by 50% at permit issuance.
 - Minor Zoning Permit: \$85
 - Southern Marin Fire Plan Check Fees: minimum \$83 (additional inspection fees may apply)

Submittal Requirements

- Completed **Building Permit** Application
- Completed **Zoning Permit** Application (most battery backup systems exempt from completing the Zoning Data Sheet)
- A complete **set of plans** that include at a minimum:
 - A complete scope of work on the cover sheet for the project. Identify if the system is to be used as an emergency, **legally required standby or optional standby** power source and if it is interconnected to an **alternative energy system such as a photovoltaic system**. Denote whether battery storage system is AC- coupled or DC-coupled.
 - The applicable codes for the project on the cover sheet
 - A legend or key for the site and floor plan on the cover sheet
 - An accurate site plan and floor plan showing the following:
 - ✓ The location of the structure the system is to be installed on/in and the location of all equipment that is to be interconnected with the battery system including but not limited to existing utility service, existing sub-panel, existing Photovoltaic system. Identify what equipment is existing and what is new.
 - ✓ The location and or room the batteries are to be installed in clearly identified. Identify if the batteries are wall or floor mounted.
 - ✓ Show required (indoor/outdoor) working clearances for new electrical equipment on floor.
 - ✓ Show method and location of required ventilation equipment (if required) for indoor installations.
 - ✓ Show physical clearances from combustibles on floor plan.
 - ✓ Show method of protection from physical damage for battery storage system.
 - ✓ Show means of access to battery storage system.
 - ✓ Show location and/or method of rapid shutdown initiation of the storage battery system, when integrated with photovoltaic.
 - ✓ Show conduit/cable routing of battery storage system, PV, and related circuits.
 - ✓ Show trench details if applicable, show overhead runs if applicable. Denote whether conductors are routed indoors or outdoors.
 - ✓ Show the location of the first responders disconnect for the system demonstrating that the battery storage system can be disconnected from the premise wiring.
 - ✓ Show the location of placards at the electrical panel and at all power source location that indicate the location of all power sources and disconnects for the structure.
 - ✓ If the batteries are to be located in the basement or inside of a structure, provide a “shunt style, remote actuated trip” disconnect at the main service that will disconnect the batteries from the electrical system.
- Provide structural calculations for the loads of the batteries to the structure if there is to be more than one battery and they are wall mounted or mounted on a floor.
- For emergency systems with an automatic transfer switch: provide calculations demonstrating compliance with the current California Electric Code for the size of the system and the loads it serves per CEC 702.4 for emergency systems with an automatic transfer switch.

Submittal Requirements, continued

- Provide a complete line diagram for the system and include wire sizing calculations. See calculations requirements below.
 - Show grounding and bonding for battery storage system, including the ground return path.
 - Show method of interconnection of battery storage system.
 - Show overcurrent protection method and rating when required.
 - Include detailed wiring information for all new circuits, including:
 - ✓ Conductor size/type
 - ✓ Number of conductors
 - ✓ Conduit size
 - ✓ Conduit type
 - Show all disconnecting means
 - Show ratings (voltage, ampacity, environmental, etc.) for new and existing service equipment
 - If a new load center is added for relocated loads, provide the following information
 - ✓ Identify the loads in the new panel. Provide the breaker sizes, and feeder sizing to that panel
 - ✓ If the breakers are relocated greater than 6ft, AFCI type breakers are required per CEC 210.12 (B) exp.
- Provide manufactures specifications and installation instructions for all new equipment;
 - Transformer or autotransformer
 - Transfer switch(es)
 - Battery
 - Battery support or racking
 - Converters
 - Combiner
 - Interconnecting cables and connectors
 - Recombiner
 - Charge controller
- Provide calculations:
 - Show calculations for sizing of new conductors
 - Show calculations for overcurrent protection ratings
 - Show short circuit current calculations
 - Show open circuit voltage calculations
 - Show calculation for point of connection to service
 - Provide load calculations for new panelboards with loads (according to Article 220)
 - Calculations for the system shall include the output voltage of the battery inverters for the system
- If a photovoltaic system is being applied for at the same time, see submittal requirements: [Photovoltaic Solar System Checklist](#)
- See Southern Marin Fire Protection District submittal requirements: [SMFD Battery Backup Submittal Requirements](#)

Property Information

Address: Assessor's Parcel Number:

Property Owner
Name: Email: Phone:

Applicant
Name: Email: Phone:

Acknowledgment

I, _____, have read the above information and have submitted all the required forms, plans and documentation. I acknowledge, understand, and agree that all materials and information submitted to the City by, or on behalf of, the applicant in furtherance of this application submitted by the applicant will be treated by the City as public records pursuant to the CA Public Records Act which may be reviewed by any person and if requested, that a copy will be provided by the City to any person upon the payment of its direct costs of duplication. I have read and agree to all of the above.

Signature

Date