

SECTION 11-31-37: BATTERY ENERGY STORAGE SYSTEM (BESS) AND BESS FACILITIES

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All BESS and BESS Facilities shall be located, developed, and operated in compliance with the Land Use Regulations in Article 2 and the following standards and all requirements related to BESS and BESS Facilities in both Title 4 – Building Regulations and Title 7 – Fire Regulations of the Mesa City Code.

A. **Purpose.** The purpose of this Section is to identify regulations for the installation and use of BESS and BESS Facilities to:

1. Promote public health, safety, and general welfare of residents and property by ensuring that potential adverse impacts from BESS and BESS Facilities are addressed and mitigated; and
2. Provide specific requirements for siting, construction, operation, and decommissioning of BESS and BESS Facilities; and
3. Minimize the potential physical, environmental, and visual impacts of BESS and BESS Facilities on surrounding areas by ensuring compatibility with surrounding land uses and the community.

B. **Applicability.**

1. ***BESS Facilities - Principal Use.***

- a. A BESS Facility, as defined in Section 11-86-5, that has a nameplate capacity equal to or greater than 1,000 kilowatts (1 megawatt) is a principal use and is prohibited in every zoning district, except that such BESS Facility may be permitted in the Planned Area Development (PAD) Overlay District that is used in combination with the General Industrial (GI) or Heavy Industrial (HI) base zoning district only if such BESS Facility is specifically permitted by the City Council with the approval of the rezoning to the subject PAD Overlay District.
- b. Additionally, all BESS Facilities as a principal use shall be located, developed, and operated in compliance with the Land Use Regulations in Article 2 and the standards of this Section 11-31-37.

2. ***BESS– Accessory Uses.***

- a. A BESS, as defined in Section 11-86-5, that is determined by the Planning Director to be an accessory use is not subject to this Section 11-31-37.
- b. To be determined an accessory use, a BESS shall, at a minimum, meet all of the following criteria:
 - i. The BESS has a nameplate capacity less than 1,000 kilowatts (1

megawatt).

- ii. The BESS exclusively serves the enterprise functions of the on-site property owner or tenant.

C. **Permitted Zoning Districts.**

1. ***Principal Use – PAD Overlay District Required.*** All BESS Facilities, that are a principal use as defined in Subsection (B)(1) above, are prohibited in every zoning district, except that a BESS Facility as a principal use may be permitted in the Planned Area Development (PAD) Overlay District that is used in combination with the General Industrial (GI) or Heavy Industrial (HI) base zoning district only if the BESS Facility is specifically permitted by the City Council with the approval of the rezoning to the subject PAD Overlay District.
2. ***Accessory Use – PAD Overlay District Not Required.*** A BESS, that is an accessory use as defined in Subsection (B)(2) above, may be permitted as an accessory use as set forth in the Land Use Regulations in Article 2 or, for PC Districts, ID Districts, and EO Districts, as set forth in the adopted plan without requiring a PAD Overlay District.

D. **Relation to Other Regulations.** Where a conflict occurs between the provisions of this Section and any other City Code, ordinance, resolution, or regulation, the more restrictive provision shall control.

E. **Application Requirements.** In addition to the application requirements of Section 11-67-2 and application guides posted on the Development Services Department website, all applications for a BESS Facility shall follow all applicable requirements of the Mesa City Code and shall include all of the following:

1. ***Project Narrative.*** A project narrative that includes all of the following:
 - a. A description of how the BESS Facility is consistent with the General Plan and any other applicable City plan or policies, and is compatible with surrounding land uses and the community.
 - b. Nameplate capacity.
 - c. All proposed phasing or augmentation plans.
2. ***Operational Plan.*** An operational plan that includes all of the following:
 - a. ***Compliance Statement.*** A compliance statement that evidences compliance with all applicable zoning, building, and fire safety regulations, and federal, state, and local environmental laws.
 - b. ***Preliminary Emergency Response Plan.*** A preliminary emergency response plan describing the procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions to reduce the risk of fire, electric shock, and personal injuries, and for safe start-up following cessation of emergency conditions.
 - c. ***Preliminary Decommissioning Plan.*** A preliminary decommissioning plan describing the anticipated life of the BESS Facility, the steps required for

the complete physical removal of BESS components, and the method for removal and disposal of all solid and hazardous waste.

3. ***Good Neighbor Policy.*** A good neighbor policy describing all of the following:
 - a. The measures that will be taken to ensure ongoing compatibility with surrounding uses, including, but not limited to, safety measures and emergency response, sound attenuation, lighting control measures, vehicular access and traffic control, and litter control measures.
 - b. Complaint response procedures, including, but not limited to, the name and telephone number of the person responsible for the operation of the BESS Facility; and procedures for emergency response, investigation, remedial action, and follow-up.
4. ***Initial Sound Study.*** An initial sound study performed by a third-party acoustical consultant, which documents each of the following:
 - a. The baseline sound levels on the project site.
 - b. The baseline sound levels measured at the property line of the nearest residential zoning district, residential use, church, park, school, or other sensitive uses as reasonably determined by the Planning Director.
 - c. If access to the property line of the nearest residential zoning district, residential use, church, park, school, or other sensitive use cannot be obtained from the property owner, the Planning Director may allow the use of sound modeling to estimate the noise levels.
5. ***Citizen Participation.*** In addition to the Citizen Participation requirements of Section 11-67-3, all the following Citizen Participation measures are required:
 - a. ***Neighborhood Meeting.***
 - i. The applicant shall hold a minimum of two (2) neighborhood meetings with residents to describe the project, including, but not limited to, the project design, proposed safety measures, emergency response, sound-mitigation, lighting control measures, vehicular access and traffic control, and litter control measures.
 - ii. Representatives of the developer or owner with both the expertise in the potential safety concerns and the decision-making authority on the design of the BESS Facility shall attend the neighborhood meetings.
 - b. ***Neighborhood Meeting Notification.***
 - i. ***Mailed Notice.*** The applicant shall notify all property owners and homeowners' associations within a half-mile radius of the exterior boundary of the property that is the subject of the application, based on the last assessment.
 - ii. ***Notice Timeframe.*** Written notice shall be provided by first class mail a minimum of 15 days before each neighborhood meeting.

c. *Site Posting.*

- i. The applicant shall post a sign on the property that is the subject of the application a minimum of 15 days before each neighborhood meeting.
- ii. The sign shall be located along an arterial street or other high-visibility location as reasonably determined by the Planning Director.
- iii. The sign shall include all the following content and shall be reviewed and approved by the Planning Director before installation:
 - (1) The applicant name and contact information.
 - (2) A brief description of the BESS Facility project.
 - (3) The date, time, and location of the neighborhood meetings.
- iv. The applicant shall remove the sign after the neighborhood meetings, but not sooner.

F. **Development Standards – BESS Facilities.**

1. ***Modifications and Deviations Not Permitted.*** The development standards contained within this Section and the development standards contained within Chapter 7 of this Ordinance, when applied to a BESS Facility, may not be modified through a Planned Area Development (PAD) Overlay, Bonus Intensity Zone (BIZ) Overlay, Alternative Compliance, or Special Use Permit (SUP).
2. ***Separation Requirements.*** A BESS Facility and all associated mechanical equipment, including but not limited to power generation, cooling, ventilating, or other equipment that supports the BESS Facility, shall be separated from the following uses as follows:
 - a. ***Residential Zoning Districts and Uses.*** A minimum distance of 1,000 feet from the nearest point of the BESS Facility site screening wall to the nearest point of the property line of the nearest residential zoning district (except property owned by a utility provider) or residential use.
 - b. ***Church, Park, School, or Other Sensitive Use:*** A minimum distance of 400 feet from the nearest point of the BESS Facility site screening wall to the nearest point of the property line of the nearest church, park, school, or other sensitive use as reasonably determined by the Planning Director.
 - c. ***Commercial and Industrial Buildings.*** A minimum distance of 150 feet from the nearest point of the BESS Facility site screening wall to the nearest support wall, post, or column of the nearest commercial or industrial building.
3. ***BESS Spacing.*** The spacing of BESS within a BESS Facility shall be designed to comply with all requirements of Title 7 – Fire Regulations of the Mesa City Code as it relates to internal setbacks and clear zones around all structures.
4. ***Fire Access Drives and Drive Aisles.*** Each BESS within a BESS Facility shall be

provided fire access to emergency response personnel via a fire access drive meeting all of the following requirements:

- a. All drive aisles shall be paved in accordance with Section 11-32-2(C) of this Ordinance.
 - b. All fire access drives and drive aisles shall be designed to comply with all requirements of Title 7 – Fire Regulations of the Mesa City Code.
5. **Portable Storage Containers.** The use of all Portable Storage Containers (PSC) shall be subject to requirements of Section 11-30-16.
6. **Site Screening.** A BESS Facility shall be fully screened with an opaque wall or fence and shall meet all of the following standards:
 - a. **Substations.** Substations are not subject to these requirements and are regulated by the screening requirements of Section (F)(7) below.
 - b. **Height.** The height of the wall or fence shall be one (1) foot above the tallest piece of equipment.
 - c. **Permitted Materials.**
 - i. Walls and fences shall be constructed of high-quality materials, such as tinted, textured blocks; brick; stone; or ornamental metal.
 - ii. The use of chain link or electrified fencing may only be used for internal security purposes and shall be fully screened from street-facing yards, residential zoning districts, and residential use-facing yards, and fully screened where adjacent to any public right-of-way.
 - d. **Prohibited Materials.**
 - i. Wood fencing is not allowed, except that wood may be used in conjunction with metal frames for gates used in conjunction with required screening walls.
 - ii. The use of barbed wire, razor wire, embedded glass shards, ultra barrier, electrified, or other hazardous screening is prohibited.
 - e. **Articulation.** Walls and fences shall be articulated every 40 feet using either of the following:
 - i. A column that is offset a minimum of eight (8) inches from the horizontal plane of the wall or fence and extends a minimum of eight (8) inches above the main body of the wall or fence.
 - ii. A landscape pocket which is a minimum of three (3) feet deep by five (5) feet wide.
 - f. **Decorative Cap.** All wall or fence columns shall have a decorative cap.
7. **Substation Screening.** All substations and related equipment, whether private or public, shall meet all of the following standards:
 - a. **Height.**

- i. The substation and related equipment shall be fully screened to a height of at least one (1) foot above the tallest piece of ground-mounted equipment (e.g., buspar, transformer, etc.).
 - ii. If the required screen wall exceeds 10 feet in height, vertical articulation is permitted, provided that:
 - A line-of-sight study demonstrates that the tallest piece of ground-mounted equipment is fully screened from public viewpoints at multiple angles; and
 - (1) The vertical modulation does not exceed 15% of the wall's total height.
- b. *Enclosure Design When Adjacent to Public Right-of-Way.* Substations that are adjacent to a public right-of-way shall be screened using walls, or alternative methods.
 - i. *Screen Walls 10 Feet in Height or Shorter.* Substation screen walls that are 10 feet in height or shorter shall comply with the development standards in Subsection 11-31-37(F)(6) and Section 11-30-4 for Fences and Freestanding Walls, and be designed to match any proposed publicly facing wall on the project site.
 - ii. *Screen Walls Greater than 10 Feet in Height.* Substation screen walls greater than 10 feet in height shall:
 - (1) Consist of a 10-foot solid masonry wall that uses materials and finishes that match any proposed publicly facing wall within the development; and
 - (2) A decorative louvered, slated, or perforated upper screen, no more than 75% opaque, mounted above the masonry wall.
- c. *Enclosure Design When Located Internal to the Site.* Substations that are located internal to the project site shall be screened using walls, fencing, or other alternative methods.
 - i. Screen walls and fences shall be a maximum of 10 feet in height with a decorative louvered, slated, or perforated upper screen, no more than 75% opaque, mounted above the masonry wall; or
 - ii. The enclosure may be a fully decorative louvered, slated, or perforated screen, no more than 75% opaque.

8. ***Utilities.***

- a. The BESS Facility shall bear the full cost of undergrounding any adjacent or on-site electrical infrastructure that would otherwise be provided via overhead distribution and/or transmission as deemed necessary by the Development Services Department in its sole discretion and approved by the applicable utility provider.
- b. The BESS Facility may be subject to other requirements from the applicable

utility provider when located outside of the City's electric or natural gas service territories.

G. Operational Requirements.

1. *Ongoing Sound Studies.*

a. *Sound Study at Certificate of Occupancy or Certificate of Completion Stage.*

- i. Within 30 days of the issuance of a certificate of occupancy or certificate of completion, whichever occurs first, the operator shall conduct a sound study performed by a third-party acoustical consultant.
- ii. The study shall document noise levels emanating from the BESS Facility, during peak routine operation measured at the property line of the nearest residential zoning district, residential use, church, park, school, or other sensitive use as reasonably determined by the Planning Director.
- iii. If access to the property line of the nearest residential zoning district, residential use, church, park, school, or other sensitive use cannot be obtained from the property owner, the Planning Director may allow the use of sound modeling to estimate the noise levels.
- iv. If the noise levels exceed the baseline sound levels identified in the initial sound study, a mitigation plan shall be submitted with the sound study outlining the measures that will be taken to reduce the noise levels to the levels documented in the initial sound study.
- v. All mitigation measures identified in the sound study shall be implemented, and proof provided to the City, within 60 days of submitting the sound study.

b. *Annual Sound Study Required.*

- i. The operator shall perform an annual sound study during peak routine operation for five (5) years after completion of the Sound Study at Certificate of Occupancy or Certificate of Completion Stage as identified in (a) above.
- ii. The study shall document noise levels emanating from the BESS Facility as measured at the property line of the nearest residential zoning district, residential use, church, park, school, or other sensitive use as reasonably determined by the Planning Director.
- iii. If access to the property line of the nearest residential zoning district, residential use, church, park, school, or other sensitive use cannot be obtained from the property owner, the Planning Director may allow the use of sound modeling to estimate the noise levels.
- iv. The operator shall provide the results of the sound study to the City within 30 days of the anniversary of the date on which the certificate

of occupancy or certificate of completion was issued by the City.

- v. If the noise levels exceed the baseline sound levels identified in the initial sound study, a mitigation plan shall be submitted with the sound study outlining the measures that will be taken to reduce the noise levels to the levels documented in the initial sound study.
 - vi. All mitigation measures identified in the sound study shall be implemented, and proof provided to the City, within 60 days of submitting the sound study.
- 2. **Augmentation.** All long-term augmentation needs shall be accounted for in the original approval through an approved site plan, and phasing plan.
 - a. *Permitted Augmentation.* Augmentation of a BESS or BESS Facility is permitted and does not require a modification to original entitlements if it complies with the approved site plan and phasing plan.
 - b. *Approval Required.*
 - i. Augmentation that requires modification to the approved site plan or phasing plan shall follow the procedures in Chapter 69 of this Ordinance; except
 - ii. Augmentations that increase the nameplate capacity of the BESS or BESS Facility shall require City Council approval.
- 3. **Ownership or Operator Changes.**
 - a. If the owner or operator of a BESS Facility changes or the owner of the property changes, the new owner or operator of the BESS Facility or property shall notify the Development Services Department within 30 days of the change.
 - b. Project approvals will remain in effect; however, the successor owner or operator assumes all obligations of the project, site plan approval, and permitting approvals, and all required documentation (e.g., Good Neighbor Policy, Decommissioning Plan etc.) shall be updated with the new owner or operator information.