

Battery Energy Storage Systems (BESS) Public Meeting

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Background

- Battery Energy Storage System (BESS) and BESS Facilities are not defined uses within the Mesa Zoning Ordinance (MZO)
- BESS are electrochemical devices that:
 - Charge or collect energy from the grid or generation facility
 - Store that energy so that it can be discharged later
 - Provide electricity or other grid services
- BESS includes battery cells; thermal, battery, and energy management systems; inverters; and related control and safety components
- BESS Facilities are the physical sites that store BESS and all associated equipment and infrastructure

Background

- BESS and BESS Facilities are an emerging and increasingly prominent land use
 - Provide grid stability by storing excess power for use during peak demand periods, outages, or emergencies
- They have unique public health and safety considerations, including but not limited to:
 - Fire and explosion risk
 - Electric shock hazard
 - Environmental impacts if improperly managed or disposed of
 - Emergency response challenges





Purpose

- City of Mesa's Planning Division, Building Division, Fire & Medical, and Energy Resources Department are proposing Zoning and Fire Code amendments to:
 - Mitigate potential health, safety, and environmental impacts
 - Ensure land use compatibility and appropriate siting of BESS and BESS Facilities
 - Ensure high-quality design and address visual impacts
 - Support electric capacity and economic development in the city



Proposed MZO Amendments

- Create land use definitions for BESS and BESS Facility
- Establish criteria for BESS and BESS Facility as either a principal or accessory use:
 - Principal Use - Nameplate capacity $\geq 5,000$ kilowatts
 - Accessory Use - Nameplate capacity $\leq 5,000$ kilowatts and exclusively serves the subject property
- Principal use permitted in the GI and HI Districts with approval of a Planned Area Development (PAD) Overlay District
 - Must comply with all BESS and BESS Facility standards
- Accessory use permitted in Agricultural, Residential, Commercial, Employment, and Downtown Districts
 - Doesn't have to comply with BESS and BESS Facilities standards



Proposed MZO Amendments

Additional Application Requirements

- Operational Plan which includes:
 - Compliance Statement - evidence of compliance with all applicable zoning, building, fire, and federal, state and local environmental laws
 - Preliminary Emergency Response Plan - procedures for safe shutdown, de-energizing, or isolation of equipment and systems under emergency conditions
 - Preliminary Decommissioning Plan - steps required for the complete physical removal of all BESS components
- Good Neighbor Policy - compliant response procedures
- Initial Sound Study - establish baseline levels at nearest residential zoning district, residential use, church, park, school, or other sensitive use

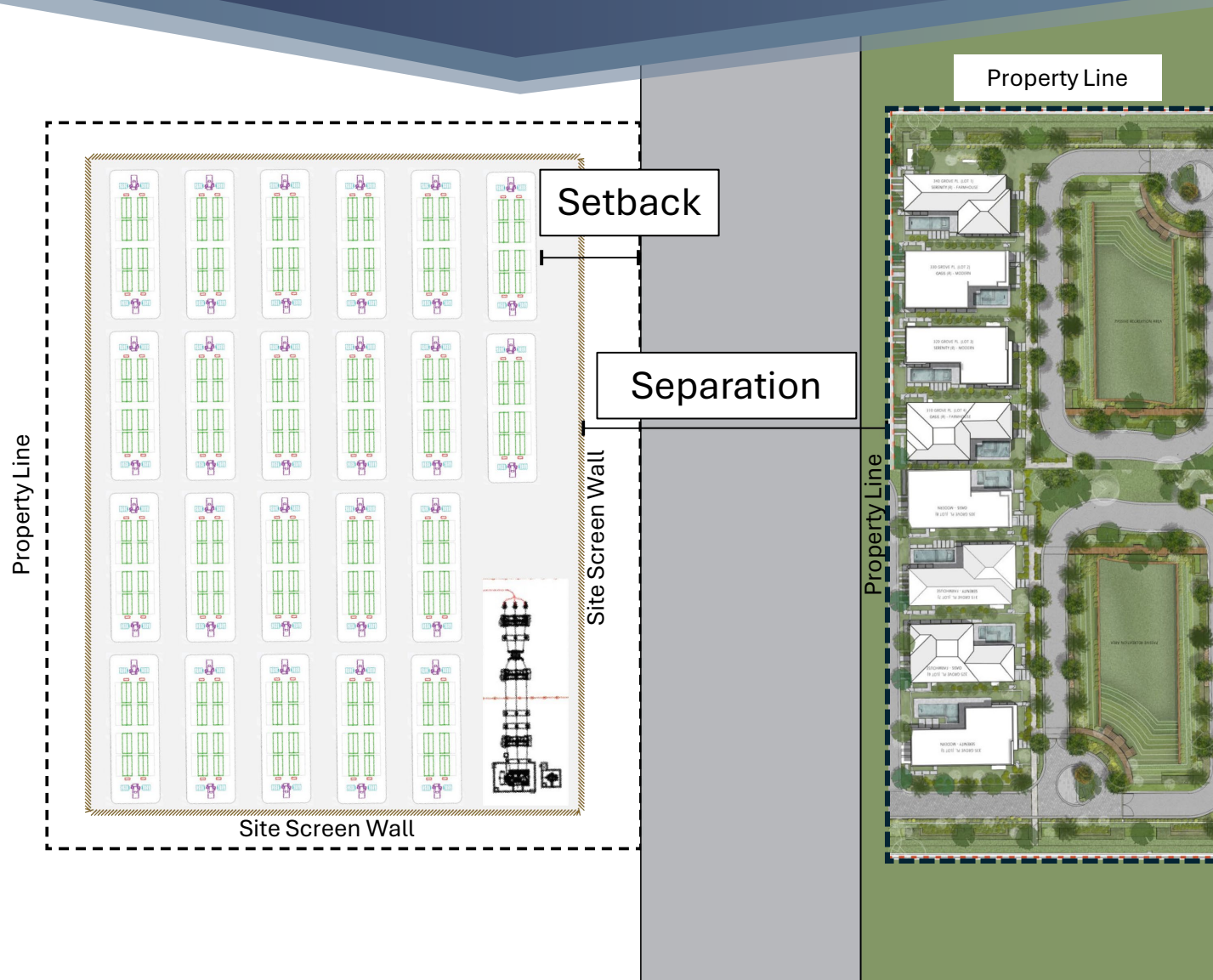
Proposed MZO Amendments

Development Standards

- Underground Utilities – if deemed necessary by the Development Services Department or the utility provider
- Site Screening
 - 1-ft above tallest piece of equipment
 - Opaque wall or fence with high quality materials
 - Articulated every 40 ft. with an offset or landscape pocket
- Separation Requirements
 - 1,000 ft. from residential zoning district and uses
 - Planning & Zoning Board recommended 400 ft. from residential zoning district and uses
 - 400 ft. from churches, parks, school, and other sensitive uses
 - 150 ft. from commercial or industrial buildings



Separation vs Setback



Setback -

- Fire Code
- Property line to BESS Equipment

Separation -

- Zoning Code
- Site screen wall to either:
 - Property line of zoning district or use
 - Building



Proposed MZO Amendments

- Substation Screening
 - 1-ft above the tallest piece of ground-mounted equipment
 - Opaque wall that matches the site wall
 - When 10-ft. tall or less - articulated every 40 ft. with an offset or landscape pocket
 - When greater than 10-ft. tall, consist of:
 - A 10-ft. masonry wall that matches the site wall; and
 - A decorate louvre, slated, or perforated upper screen, no more than 75% opaque, mounted on the masonry wall
 - When located internal to the site
 - Combination of 10-ft. masonry wall and louvres, slats, etc.; or
 - Fully decorate louvre, slated, or perforated screen



Proposed MZO Amendments

Operational Requirements

- On-Going Sound Studies
 - Within 30-days of receiving a Certificate of Occupancy
 - Annual Sound Study for 5 years thereafter
- Ownership or Operator Changes
 - Must notify the Development Services Department within 30 days
 - Approval remains in effect – new owner/operator assume all obligations
- Augmentation permitted if it complies with the approved Site Plan and Phasing Plan
 - Site Plan Modification or modification to phasing plan follows procedures in Ch. 69: Site Plan Review
 - Increase in Nameplate Capacity requires City Council approval

Public Participation

- 2 Open Houses
 - In-person at the Mark @Eastmark on October 1st
 - 17 attendees
 - Zoom on October 13th
 - 24 attendees
 - Comments & Questions
 - Environmental impacts - setbacks from waterway & detention of water
 - Sound study levels
 - Zoning separation and Fire Code setbacks
 - Applicability to Eastmark



Public Comment

- 11 people spoke at the Planning & Zoning Board hearing - Oct 22nd
 - Comments & Questions
 - The 1-megawatt threshold is too low; the nameplate capacity should be higher for accessory use
 - A 1,000-foot separation is too high; doesn't align with National Fire Protection Association (NFPA) standards
 - The ordinance is in conflict with Mesa's Energy and Climate goals which site the use of battery storage
 - How do we address projects already in development?
- Question & Answer Summary and public comments are included in the packet



Questions?





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