

Eastmark Public Meeting - 10/1/2025

No.	Topic	Question/Comment	Staff Response
1	Separation	Is the separation the 300 ft and a 26 ft apparatus?	An array of BESS would be required to have a 20-foot-wide fire apparatus road every 300 feet. Also, at least one side of the array must have a 26-foot-wide fire lane.
2	Drainage	Is the City requiring berming or additional detention for water used when fighting fires?	No, the City's approach would not be to dilute a BESS if on fire, rather let it burn and try to prevent it from spreading to other BESS. The City may spray other BESS as part of this tactic but that water would not contain contaminants that would need to be contained.
3	Separation	Are the canals considered sensitive areas?	No, the sensitive receptors generally include places of congregation. Due to the City's planned method for fire suppression, Staff does not anticipate that runoff into the canal system is a concern.
4	Substation	Has the City thought about the inter-connection lines between the BESS and adjacent substation? Requiring lines to be placed underground can get costly.	Yes, the decision to underground such lines would be at the discretion of the Development Services Director in consultation with the City's Energy Resource Director and utility provider.
5	Safety	Will the City regulate battery composition?	The City will enforce the latest fire code which has specific safety requirements for each type of battery technology.
6	Safety	Will the City require proof of fire test prior to CO issuance?	The City will require proof of listing in accordance with UL 9540A for large scale facilities. UL 9540A is the test method for evaluating thermal runaway fire propagation in BESS.
7	Drainage	Has the City thought about drainage impacts from suppressing a BESS fire?	Yes, the City's approach would not be to dilute a BESS if on fire, rather let it burn and try to prevent it from spreading to other BESS. The City may spray other BESS as part of this tactic but that water would not contain contaminants that would need to be contained.
8	Screening	Are the substation screening requirements applicable to the transmission substations?	The substation screening requirements apply to all substations located on the BESS Facility site.
9	Environmental	Has the city considered establishing a minimum BESS setback from waterways?	No, because of the City's planned method for fire suppression, Staff does not anticipate that runoff into waterways is a concern.
10	Safety	What are the city's protocols during an emergency? Will residents be notified?	If evacuations were deemed necessary, Fire and PD would work together to coordinate public notifications and evacuations based upon the nature of the emergency. If evacuations were not needed, Fire, PD, and City PIO work to notify news agencies and coordinate any press releases.
11	Land Use	How did the city decide on 1 megawatt as the threshold for a principal BESS use?	Through research of best practices and other municipal codes.
12	Sound	Is it even possible to NOT increase baseline sounds?	Yes, through various mitigation approaches. To clarify, the baseline sound level at the nearest residential, church, park, school or sensitive receptor property line may not increase. This does not apply to the sound levels on the BESS Facility itself.
13	Battery	Are there safeguards for residential battery storage?	Residential BESS should be installed by a qualified installer using UL listed equipment. NFPA standards prohibit the installation of BESS in sleeping rooms or closets or spaces opening directly into sleeping rooms.

Virtual Public Meeting - 10/13/2025

No.	Topic	Question/Comment	Staff Response
1	Sound	What are the dB guidelines for sound?	An initial sound study would establish the baseline levels at the nearest residential use or zoning district, church, school, park or sensitive receptor. The baseline must then be maintained.
2	Land Use	How will the City prevent data centers from installing multiple 0.9-MW battery containers and calling each one an "accessory use" to avoid the 1-MW threshold and all safety, screening, and distance rules?	The nameplate capacity applies to the entire site (in the case of a large-scale BESS facility), not per BESS unit.
3	Battery	Do applicants have to show some form of certification to build BESS?	BESS facilities, including fire detection systems and hazard mitigation analysis, are required to be designed by a registered engineer and must be approved by the fire code official.
4	Setbacks	Why does the 400-foot separation from residential areas apply only to "principal" BESS facilities — and not to large battery banks attached to data centers that may sit directly across from Eastmark homes?	The COM recently adopted a data center ordinance which has its own regulations for setbacks and noise. BESS are not an identified use within the Eastmark Community Plan and therefore not a permitted use.
5	Screening	Will the opaque-wall and high-quality-material screening requirements apply to data-center BESS, or can those be fenced with chain link and remain visible from public streets or neighborhoods?	The screening requirements are essentially the same. So yes, they would apply.
6	Economy	What economic factors are driving using utility grade batteries? Is this SRP? Why now?	BESS are an emerging technology needed to provide energy grid system stabilization.
7	Land Use	This wouldn't apply to Eastmark right?	BESS are not an identified use within the Eastmark Community Plan and therefore not a permitted use.
8	Environmental	What about environmental impacts (leaking into water tables, degradation from sun exposure). Are ongoing inspections required?	Battery degradation will be addressed with the augmentation plan. The City will continue to monitor advances in technology and the latest editions of codes that regulate BESS to address safety and environmental impact. Facilities will require an annual Fire inspection.
10	Land Use	There's an Eastmark carve out to data center ordinance correct so Eastmark wouldn't be covered by the ordinance either.	Eastmark follows their own Community Plan(s). BESS are not an identified use within the Eastmark Community Plan and therefore not a permitted use.
11	Setbacks	Where did these setbacks come from?	We have researched several different ordinances, and there is no "standard" setback. From a fire and safety perspective, we felt that 500' sits in the middle of where other jurisdictions are. It's also consistent with what we have for our data center rules. The 100' setback within the property is in the fire code.
12	Battery	What is the chemical composition of the batteries?	LFP. There are multiple types of batteries and compositions. The fire code addresses the unique hazards of each type and the City will continue to monitor the latest editions of the code to keep up with advancements in battery technology.
13	Setbacks	Can the required setback be reduced?	There may be unique conditions (i.e., adjacent to unbuildable areas) that justify a modification to the 100' fire separation; however the residential separation requirements address more than safety concerns and involve aesthetics, sound, and land use compatibility, therefore the ordinance doesn't allow those to be modified.
14	Safety	Take a closer look at the 300' cluster requirement.	Ensures emergency access. Also provides horizontal separation to prevent fire spreading from block to block.
15	Setbacks	Is there a minimum distance established in other ordinances for .99MW or less bess that are accessory use	Accessory use would not have to comply with BESS zoning requirements. The Fire Code and NFPA 855 apply to utility-scale and accessory BESS.

Public Comment Tracker - Updated 10/14/25

No.	Topic	Question/Comment	Staff Response	Name	Dated
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1	Setbacks	The separation distances, as drafted, are unduly burdensome, technically unsupported, and inconsistent with the hazard-based approach established under NFPA 855. By far exceeding the distances necessary to mitigate risks associated with properly designed and tested BESS installations, the proposed setbacks lack a clear, evidence-based nexus to demonstrable hazard conditions and risk profiles. As such, they risk imposing arbitrary and unreasonable siting restrictions that could materially impede the deployment of energy storage facilities without a corresponding improvement in public safety. Adoption of a hazard-based setback framework grounded in UL 9540A testing, site-specific Hazard Mitigation Analyses, and NFPA 855 criteria would achieve the City's safety objectives while providing a technically defensible and legally durable basis for permitting and enforcement.	Staff reviewed several ordinances from other jurisdictions and found that there is no consistent or standardized separation requirement for BESS Facilities. From a fire and safety perspective, the proposed 400-foot separation represents a balanced approach that aligns with practices in other communities and is consistent with the City's existing data center regulations. Additionally, the 100-foot internal setback is derived directly from the Fire Code, which incorporates key provisions of NFPA 855 to ensure compliance with nationally recognized safety standards.	Court S. Rich	10/13/2025
2	Design	Paved fire access drives and drive aisles within a BESS facility and full site screening with an opaque wall or fence that extends at least one foot above the tallest piece of equipment are intended to ensure safe emergency access and minimize visual impacts, but impose prescriptive requirements that exceed what is necessary under nationally recognized safety standards and could limit project feasibility without corresponding safety benefits. NFPA 855 establishes performance-based criteria for emergency vehicle access but does not require paved surfacing. Instead, the standard allows aggregate or other all-weather surfaces provided they meet load-bearing and accessibility requirements for fire apparatus. Moreover, paved roads can impede or complicate access to underground utilities for maintenance or repair. Allowing aggregate surfacing in lieu of paving would satisfy NFPA 855's fire access objectives while preserving subgrade permeability site disturbance, and reduced need for on-site flow management, particularly in industrial settings where aggregate drives are common and code-compliant.	Paving of fire access drives and screening of mechanical equipment is required for all development within the City of Mesa to ensure the surfaces remain stable, resist erosion, and are capable of supporting the weight of fire apparatus.	Court S. Rich	10/13/2025
3	Screening	In comments made during the October 6 City Council Study Session, City staff confirmed that the tallest piece of equipment that this provision is intended to apply to at a BESS facility is the BESS container itself. The ordinance should explicitly codify this interpretation by stating that screening height is measured relative to the BESS container, rather than any ancillary equipment or temporary components.	Staff's comment was that the BESS container is usually the tallest piece of equipment; however, each site is unique and the standards ensure that as technology evolves, the BESS and associated mechanical equipment is screened.	Court S. Rich	10/13/2025
4	Sound	The City should consider clarifying in the ordinance that compliance with the sound standard is determined relative to the modeled baseline sound levels established in the pre-operation study, and that mitigation obligations arise only where BESS operational sound levels exceed those modeled levels.	Section 11-31-37(G)(1)(ii-iv) and Section 11-31-37(G)(2)(ii-iv) contain this information.	Court S. Rich	10/13/2025
5	Fire	We recommend that Section 11-31-37 explicitly incorporate the latest published edition of NFPA 855 as the controlling standard for all new BESS installations, including requirements related to design, installation, commissioning, operation, maintenance, and decommissioning.	While NFPA 855 establishes important standards for the design, installation, operation, and safety of BESS systems, it does not address several site planning and design considerations that are essential to the Zoning Ordinance, such as ensuring high-quality development and land use compatibility. The proposed zoning standards are intended to complement—not duplicate—the Fire Code, which will incorporate the latest edition of NFPA 855 and address requirements for commissioning, operation, maintenance, decommissioning, and hazard mitigation.	Court S. Rich	10/13/2025
6	Setbacks	The proposed 500-foot setback from residential properties is excessive and unsupported by BESS-specific impact data. A more reasonable 150-foot setback combined with appropriate screening, fire safety and sound attenuation measures would balance community safety with practical deployment.	Staff reviewed several ordinances from other jurisdictions and found that there is no consistent or standardized separation requirement for BESS Facilities. From a fire and safety perspective, the proposed 400-foot separation represents a balanced approach that aligns with practices in other communities and is consistent with the City's existing data center regulations. Additionally, the 100-foot internal setback is derived directly from the Fire Code, which incorporates key provisions of NFPA 855 to ensure compliance with nationally recognized safety standards.	Steven G. Zylstra	10/13/2025
7	Land Use	Limiting BESS facilities solely to general industrial and heavy industrial districts is unnecessarily restrictive, as less than 1% of Mesa's land area falls under these designations. We recommend expanding eligibility to include light industrial zones. BESS facilities are clean, low-impact operations that are more compatible with light industrial uses than most traditional heavy industrial activities.	GI & HI account for approximately 4.2% of the land in Mesa. The proposed amendments address the unique operational characteristics of BESS Facilities and aim to mitigate potential impacts on the surrounding community, including residential uses. 1) LI zoning is commonly located adjacent to residential zoning. 2) The General Plan's Future Land Use Plan provides guidance on future development to ensure consistency with the City's long term vision and guiding principles. BESS will fall under the "Typical Land Use" category of "Heavy Industrial" which is compatible with the Industrial Placetype where the GI and HI are the appropriate zoning.	Steven G. Zylstra	10/13/2025
8	Sound	Noise regulations should be based on objective decibel levels consistent across comparable land uses. Creating separate standards for BESS projects introduces inequities that could deter investment and delay deployment.	The location and conditions of these sites is unique. Therefore, staff recommends that that noise be mitigated to not create impacts on residential uses, schools, churches, parks, and other sensitive receptors.	Steven G. Zylstra	10/13/2025
9	Screening	Please ensure significant screening is required.	As outlined in the proposed BESS ordinance, BESS facilities must be fully screened with opaque walls or fencing that extends at least 1' above the tallest piece of equipment. The screening element must also be articulated every 40 feet and include decorative caps. For substations, we've proposed additional design standards when adjacent to public rights-of-way, including requirements for masonry walls with decorative louvered or perforated screens for taller installations.	Anthony Grinevich	10/1/2025
10	Land Use	I would like to see the city offer incentives for solar customers (decentralized) to use larger battery storage units and be able to use/share that stored energy during times of high use instead of sending all the generated power back to the grid. Not as much money making opportunities for the utility company, but better for customers.	Thank you for the suggestion. This particular Ordinance is focused on establishing BESS as a permitted use within the City and establishing standards for BESS Facilities.	Jeanne Blaes	10/13/2025

11	Setbacks	Please follow the well-researched setbacks and other safety measures listed in NFPA 855. NFPA 855 ensures safe siting of BESS projects balanced with the need to enable energy development to foster local economic growth.	Staff reviewed several ordinances from other jurisdictions and found that there is no consistent or standardized separation requirement for BESS Facilities. From a fire and safety perspective, the proposed 400-foot separation represents a balanced approach that aligns with practices in other communities and is consistent with the City's existing data center regulations. Additionally, the 100-foot internal setback is derived directly from the Fire Code, which incorporates key provisions of NFPA 855 to ensure compliance with nationally recognized safety standards.	T Grubbs	10/6/2025
12	Setbacks	The separation requirements should be updated to reflect a setback requirement from the Battery Energy Storage System (BESS) with associated mechanical infrastructure, and not the BESS Facility. And replacement of city specific separation requirement with adherence to the most updated NFPA 855 standards	The separation requirements have been updated to be measured from the nearest portion of the BESS Facility site screening wall versus the property line.	NextEra Energy Resources	10/16/2025
	Setbacks	Reduce 150-foot BESS Facility setback from nearest property line to 100-foot setback of BESS to property line or update 150-foot BESS setback to nearest existing Commercial, Employment, or Industrial building	The separation requirements have been updated to be measured from the nearest portion of the BESS Facility site screening wall versus the property line.	NextEra Energy Resources	10/16/2025
13	Land Use	(B)(1)(a) & (C)(1): Addition of including Light Industrial (LI) in the base zoning districts approved for Battery Energy Storage System (BESS) development. Siting of BESS projects directly adjacent existing electrical infrastructure maximize the project's usefulness to the contracted load serving entity and minimizes transmission line buildout. Both Major and Minor Utilities are allowable in Light Industrial zoning districts and Mesa leadership maintains discretionary ability through PAD.	The proposed amendments are designed to address the unique operational characteristics of BESS Facilities and to mitigate potential impacts on surrounding areas, particularly adjacent residential uses. The Light Industrial (LI) zoning district is often located near residential zoning, making it less suitable for uses with the potential impacts associated with large-scale energy storage. The General Plan's Future Land Use Map provides guidance to ensure consistency with the City's long-term vision and guiding principles. Under that framework, BESS Facilities are classified under the "Heavy Industrial" typical land use category, which aligns with the Industrial Placetype where the General Industrial (GI) and Heavy Industrial (HI) zoning districts are considered appropriate. If a specific site near existing electrical infrastructure is determined to be ideal for a BESS Facility due to its proximity to a substation or transmission line, a rezone request could be pursued to evaluate that location through the established public review process.	NextEra Energy Resources	10/13/2025
14	Setbacks	(F)(2): Replacement of city-specific separation requirement with adherence to the most updated NFPA 855 standards. National codes are in place to govern safety concerns of BESS Facilities; the city maintains the discretionary ability to implement additional restrictions.	NFPA doesn't include several standards applicable to site planning and design that are relevant to the Zoning Ordinance to ensure high-quality design and land use compatibility. The City desires to establish standards to address aspects beyond safety.	NextEra Energy Resources	10/13/2025
15	Setbacks	(F)(2)(c): Addition of pathway for deviations to Zoning District setbacks. An applicant may request a deviation of these setback requirements if an engineered solution is demonstrated to provide an equivalent level of safety (as prescribed by NFPA 855). This addition would formalize a pathway for deviations from the ordinance, as ultimately adopted, to account for evolutions in technology and safety standards of BESS Facilities without requiring an amendment to the PAD.	Staff acknowledges that there may be unique site conditions—such as locations adjacent to unbuildable areas—that could justify a modification to the 100-foot fire separation standard. However, the residential separation requirements address more than just safety; they also consider aesthetics, sound, and land use compatibility. For this reason, the ordinance does not allow these separation requirements to be modified, even if alternative engineering solutions are proposed.	NextEra Energy Resources	10/13/2025
16	Screening	(F)(6)(b)(i): Update to match Data Center Ordinance language for mechanical equipment screening; "a solid masonry wall at least eight (8) feet in height or tall enough to fully screen the tallest piece of equipment." Data Center Ordinance requires screening of Mechanical Equipment, including battery storage and power generation. Adopting approved language within existing city code ensures consistency.	The proposed language is consistent with the standard requirement for the screening of mechanical equipment per Section 11-30-9(A)(2) of the MZO.	NextEra Energy Resources	10/13/2025
17	Augmentation	(E)(1)(c): Addition of "preliminary" to proposed phasing or augmentation plan. Augmentation areas representing the eventual total project buildout and anticipated augmentation timelines can, and should, be provided at application. Addition of preliminary acknowledges that specific augmentation timelines and regions may adjust over the life of the project but will not change the Nameplate Power Capacity requirement.	Thank you for the recommendation. However, staff does not support adding the term "preliminary," as it could imply that the nameplate capacity or site plan may be modified in the future without formal review or approval. The intent is to ensure that all elements of the approved plan—including augmentation areas and timelines—remain consistent with the approved project.	NextEra Energy Resources	10/13/2025
18	Decommissioning	(E)(2)(c): Addition of language documenting that the purpose of decommissioning is ensuring decommissioning activities return the property to its condition prior to use as a BESS Facility. Clarification of the intent of the decommissioning and removal of the BESS Facility, not requiring removal of all subsurface infrastructure not impacting future use of the site (e.g. underground collection).	The full decommissioning plan will be required with building permits and greater details of the requirements for the decommissioning plan is contained within the Fire Code.	NextEra Energy Resources	10/13/2025
19	Sound	(E)(4)(b) & (G)(1)(a)(ii): Addition of "or modeled by a third-party acoustic consultant." Access to nearest property lines or uses, as currently drafted, may be contingent on third party owners unwilling to grant access. In the absence of measurements, modeling by third-party acoustic consultants can meet city intent.	Section modified to include this provision.	NextEra Energy Resources	10/13/2025
20	Screening	(F)(6)(d)(ii): Add explicit language that materials are only prohibited on external screening infrastructure. Add clarity to design requirements and differences between BESS Facility and internal screening infrastructure.	The "Site Screening" requirements apply to the site itself and not to the internal screening of individual equipment.	NextEra Energy Resources	10/13/2025
21	Screening	(F)(7)(a)(i): Add clarification of what types of substation equipment are not intended to be screened. "Ground-mounted equipment" does not provide enough clarity as to what is, and is not, required to be screened and materially impacts the screening design height.	This language mirrors the data center ordinance and is intentionally broad to accommodate evolving technologies and equipment.	NextEra Energy Resources	10/13/2025
22	Screening	(F)(8)(a): Add voltage limit of 69kV infrastructure for undergrounding, add reasonably to necessity determination, remove sole discretion. Undergrounding electrical infrastructure above 69kV presents significant engineering and construction challenges. Reasonable determination is consistent with ordinance sensitive receptor and signage location requirements. Clarify that approval of undergrounding requirement is contingent on utility concurrence, not sole discretion of Development Services Department.	This language mirrors the data center ordinance and is intentionally broad to allow for discussion between the applicant, city, and utility provider; and contains language requiring approval by the utility provider.	NextEra Energy Resources	10/13/2025

23	Augmentation	(G)(2)(b)(ii): Addition of language focusing augmentation on Nameplate Power Capacity measured in kilowatts or megawatts. In the generator interconnection process generation and capacity resources, such as a BESS Facility, are governed by their interconnection power capacity, measured in kilowatts or megawatts. Additionally, commercial agreements, commonly a Power Purchase Agreement (PPA) or Energy Storage Agreement (ESA), are contracted utilizing the Nameplate Power Capacity. Contract terms and specific battery technology will dictate overbuild and augmentation schedule to maintain contracted Nameplate Power Capacity.	A definition of Nameplate Capacity is proposed which describes the measurement of stored energy. Staff has revised the definition for greater clarity. A complete Augmentation Plan is required with building permits. The details of what is required with the Augmentation Plan will be outlined in the Fire Code.	NextEra Energy Resources	10/13/2025
24	Definitions	Definitions: Addition of Nameplate Power Capacity definition. Clarification by additional definition correlating to how BESS Facilities are governed in the interconnection process and commercial agreements.	A definition of Nameplate Capacity is proposed within the Ordinance and has been revised to provide greater clarification between storage and supply	NextEra Energy Resources	10/13/2025
25		AriSEIA recommend that Mesa look at the pending Buckeye BESS ordinance as an example. We further recommend significant changes to B(1)(a) and B(2)(b). As written, this ordinance will potentially apply to many commercial and industrial distributed generation projects. 1 MW is much too small, if the ordinance is meant to only apply to utility scale projects. We recommend you not have any size threshold and instead just state that the ordinance applies only to utility scale BESS projects, such as is seen in Buckeye's ordinance (Section 3.2.2(1)): "The requirements of this Section shall apply to all utility-scale BESS facilities permitted, installed, or modified after the effective date, excluding general maintenance and repair. Utility-scale BESS facilities constructed or installed prior to the effective date are not required to meet the requirements of this Chapter." Alternatively, you could state that the ordinance does not apply to distributed generation projects with on-site battery energy storage. If the City feels it is imperative to include a size threshold, we recommend only doing it in B(1) and not B(2). And it should be 5 MW, not 1 MW. Further, the limitation in B(2)(b)(ii) is problematic because it would preclude commercial and industrial customers from participating in any forthcoming virtual power plant programs offered by the utilities to their business customers. Instead of "exclusively," it should say "primarily."	Staff researched zoning ordinances and model codes from across the country and found no universally adopted standard distinguishing utility-scale from accessory-scale Battery Energy Storage Systems (BESS). However, a 1 megawatt (MW) threshold is among the most commonly used benchmarks nationally to differentiate between small-scale and utility-scale installations. This threshold provides a clear, objective standard to determine when the requirements for BESS Facilities apply and in which zoning districts BESS and BESS Facilities are permitted. Establishing such an objective measure is critical to ensure consistent application of the ordinance and to provide clarity for applicants, staff, and the public. Staff's recommendation to use a 1 MW threshold is based on its prevalence in industry guidance and peer community ordinances. For example, the American Clean Power Association's model ordinance also uses 1 MW to define utility-scale systems. From a practical standpoint, a 1 MW BESS typically equates to the size of a standard shipping container, providing a tangible and easily understood distinction for both applicants and the public. If "virtual power plant" programs or other distributed energy models emerge as a viable technology in Mesa, the City will evaluate and address those innovations through future ordinance updates.	Arizona Solar Energy Industries Association	10/15/2025
26	Utility	Restrictions in B(1)(a) and C(1) to general and heavy industrial are too limited and may actually create a de facto moratorium on BESS within the City of Mesa. Engineers from Arizona utilities, including Salt River Project (SRP), have publicly spoken about the importance BESS technologies play in ensuring continued electrical service in the Valley amid growing demand. SRP expects electricity demands will grow 6% per year for the next decade, compared against the 2% yearly growth seen from 2015-2025.	The City recognizes the critical role of BESS in enhancing grid reliability and meeting growing energy demands. That is precisely why the City is proposing to formally establish BESS as a defined land use and to create clear development standards to guide their safe and compatible integration within Mesa. At present, BESS facilities are not an allowed use under the existing zoning ordinance. The proposed amendments ensure that BESS can be accommodated appropriately within the city while maintaining consistency with established land use, safety, and compatibility standards.	Arizona Solar Energy Industries Association	10/15/2025
27	Land Use	To keep pace with this demand, SRP will have to double—and possibly triple—its capacity. Given those electricity demand needs, it is absolutely critical to leverage a variety of technologies, including BESS. We recommend all industrial, including light industrial, be eligible for BESS.	BESS facilities present unique siting and operational considerations that extend beyond safety, including land use compatibility, visual and noise impacts, and alignment with the Mesa 2050 General Plan. Locating these uses within appropriate employment districts helps maintain the long-term viability of Regional Employment Centers for high-intensity, job-generating activities.	Arizona Solar Energy Industries Association	10/15/2025
28	Setbacks	Tying the ordinance to the most recent versions of UL 9540 and National Fire Protection Agency (NFPA) 855 is recommended. The American Planning Association found the national setback average for BESS-specific setbacks was 50-150 feet from property lines. While the NFPA recommends 100', we recommend no more than 150' from the structures (not the property line) based on the Phoenix Regional Standard Operating Procedures Battery Energy Storage Systems policy.	Setbacks in accordance with the NFPA are proposed within Fire Code amendments going to City Council at the same time as the Zoning Ordinance. However, BESS have impacts beyond safety that the City desires to address through separation requirements from various uses.	Arizona Solar Energy Industries Association	10/15/2025
29	Setbacks	The setbacks should be measured from the BESS equipment, not the BESS property line. This would align Mesa's ordinance with national standards, improve regulatory defensibility, and ensure that safety requirements scale appropriately with actual risk rather than imposing arbitrary limits that could either under- or over-regulate BESS facilities.	The zoning ordinance was revised so that the separation will be measured from the nearest portion of the BESS facility site screen wall to the nearest property line or building, as applicable. Battery locations within a BESS facility will be required to meet the 2024 International Fire Code and NFPA855 requirements.	Arizona Solar Energy Industries Association	10/15/2025
30	Setbacks	All electricity generation and energy storage creates some amount of risk. However, battery incidents represent only 2% of battery installations. Setbacks for batteries should not be more onerous than setbacks for other energy infrastructure, such as substations.	Battery locations within a BESS facility will be required to meet the 2024 International Fire Code and NFPA855 requirements.	Arizona Solar Energy Industries Association	10/15/2025
31	Sound	Sound restrictions for BESS should not be different than those for other land uses. We recommend capping the decibel level of the project from the nearest residence. In a residence you would have normal conversation at 60 dB, a vacuum at 70-85 dB, an AC unit or TV at 70 dB. AriSEIA recommends the City not require a noise level less than 65 dB from the nearest residence if the ambient noise is below that.	The proposed sound study requirements and standards mirror those adopted for data centers.	Arizona Solar Energy Industries Association	10/15/2025
32	Fire	Any BESS spacing in F(3) should only be 3 ft. The NFPA 855 sets its threshold at 3 feet between individual BESS units. NFPA 855 allows for adjustment upward or downward based on site specific hazard data, including through written agreements with adjacent property owners, provided that such agreements are reviewed and accepted by the City and supported by the site's hazard mitigation analysis (HMA). This mechanism allows jurisdictions to maintain safety standards while accommodating site-specific conditions and product design innovations.	Battery locations within a BESS facility will be required to meet the 2024 International Fire Code and NFPA855 requirements.	Arizona Solar Energy Industries Association	10/15/2025
33	Land Use	Mesa's suggestion to increase cabinet spacing over and above the requirements of the fire code are not without consequences. Projects that require more internal spacing will require more land for development. Consequently, these projects will become bigger in area and be costlier to develop. This will come back to Mesa citizens in the rates they pay for electricity	Battery locations within a BESS facility will be required to meet the 2024 International Fire Code and NFPA855 requirements. Mesa is not proposing an increase to the cabinet spacing beyond these codes.	Arizona Solar Energy Industries Association	10/15/2025

34	Fire	The ordinance should align these standards with NFPA 855 and (1) allow drive aisles to be made of aggregate all-weather surfacing and (2) only require partitions to be one foot higher than BESS units. By exceeding NFPA's safety recommendations, these proposed requirements impose significant costs and potentially jeopardize project feasibility without a commensurate increase in safety.	Paving of fire access drives is required for all development within the City of Mesa to ensure the surfaces remain stable, resist erosion, and are capable of supporting the weight of fire apparatus. The proposed screening requirements, require that all BESS and related mechanical equipment be screened 1-foot above the tallest piece of equipment.	Arizona Solar Energy Industries Association	10/15/2025
35	Utility	AriSEIA recommends that whether lines are undergrounded or not be left to the BESS Facility, the utility, and the Arizona Corporation Commission's (ACC) Power Plant and Line Siting Committee (if applicable), as the ACC has a policy on undergrounding that disfavors it, as it can be excessively costly.	The City maintains an interest in the presence and siting of overhead lines, as they directly affect community aesthetics, safety, and long-term land use compatibility.	Arizona Solar Energy Industries Association	10/15/2025
36	Land Use	The ordinance should include a waiver provision in the event a project proposal conflicts with some component of the ordinance, but is otherwise an ideal site. The City of Eloy Solar and BESS Ordinance includes such a provision. We recommend adding language such as that included in 21-3-1.39(B) of Eloy's ordinance. A waiver provision gives the city the flexibility when <u>special circumstances and safety demand</u> .	Deviations are intentionally constrained to maintain the strength and consistency of zoning standards and to prevent their gradual weakening through case-by-case waivers.	Arizona Solar Energy Industries Association	10/15/2025
37	Definitions	There is an error in the nameplate capacity definition. We recommend an updated definition such as, "NAMEPLATE CAPACITY: The maximum rated power output that a battery energy storage system (BESS) or facility can discharge or receive under specific conditions designated by the manufacturer. It is also referred to as rated capacity or peak capacity, and is expressed in megawatts (MW) or kilowatts (kW) for power. The associated energy capacity, sometimes referred to as nameplate energy capacity, represents the total amount of energy the system can store or deliver over time, expressed in megawatt-hours (MWh) or kilowatt-hours (kWh)."	Thank you. Staff revised the definition based on parts of this recommendation.	Arizona Solar Energy Industries Association	10/15/2025
38	Fire	Incorporating NFPA 855 by reference into this ordinance will provide Mesa with clear, nationally recognized metrics on maximum system capacity, hazard mitigation, emergency response, and decommissioning. NFPA 855 requires the following submittals and by incorporating NFPA 855, Mesa will be requiring each of these: • Hazard Mitigation Analysis (HMA); • Emergency Response Plan; • Details of all safety systems, including; o UL 1973 – for battery modules and components; o UL 9540 – for integrated BESS systems; o UL 9540A – for fire propagation testing to evaluate thermal runaway risk; and • Results of UL 9540A or equivalent testing	The standards and reference to the NFPA are proposed within the Fire Code text amendments.	Arizona Solar Energy Industries Association	10/15/2025
39	Zoning	We respectfully urge the city to consider treating BESS as essential infrastructure, permitted by right in Light Industrial, Commercial, and Agricultural zones. Adopting clear, objective standards aligned with established safety codes, such as NFPA 855, will ensure safety while enabling responsible development.	The City recognizes the importance of Battery Energy Storage Systems (BESS) in supporting electrical grid reliability and advancing energy resiliency. The intent of this ordinance is not to restrict BESS development but to establish it as a defined land use with clear standards for safety, compatibility, and long-term planning consistency. BESS facilities present unique siting and operational considerations that extend beyond safety, including land use compatibility, visual and noise impacts, and alignment with the Mesa 2050 General Plan. Locating these uses within appropriate employment districts helps maintain the long-term viability of Regional Employment Centers for high-intensity, job-generating activities. Standards referencing NFPA 855 and related codes are being incorporated through the proposed Fire Code text amendments to ensure consistency with nationally recognized safety protocols.	SRP	10/15/2025
40	Zoning	Discretionary permitting or restrictive zoning could create uncertainty for infrastructure investments, increase costs for residents and businesses, and discourage future clean energy development. Mesa's energy infrastructure must be planned and built years in advance; delays in permitting can have long-term consequences for reliability and affordability.	The City recognizes the importance of providing regulatory clarity and predictability to support timely investment in critical energy infrastructure. The intent of the proposed ordinance is not to restrict energy development but to establish clear, consistent standards that balance the community's long-term energy, safety, and land use goals. Given the unique operational characteristics and potential impacts of BESS, a discretionary review process ensures that each facility is evaluated for site-specific compatibility, safety, and design quality. This approach provides certainty by defining expectations up front while allowing flexibility for future technological advances. By aligning with both NFPA 855 safety standards and the Mesa 2050 General Plan, the City seeks to enable responsible energy development that enhances grid reliability, protects adjacent land uses, and supports Mesa's economic development objectives.	SRP	10/15/2025
41	Safety	We encourage the city to take into consideration the concerns shared by our partners, including the BESS developers with whom SRP has energy storage agreements, and the Arizona Solar Energy Industries Association (AriSEIA). These stakeholders bring critical expertise and practical experience that underscore the importance of a balanced, safety-focused ordinance that does not impede clean energy progress.	The City appreciates the input provided by SRP, AriSEIA, and other industry stakeholders whose expertise has been valuable in informing the development of the proposed ordinance. Staff shares the goal of advancing safe, reliable, and sustainable energy solutions and has worked to ensure that the ordinance reflects a balanced approach—one that enables clean energy investment while safeguarding community health, safety, and land use compatibility. The proposed standards establish clear, objective criteria for siting and design while referencing NFPA 855 and the Fire Code text amendments to ensure compliance with recognized safety practices. This framework provides predictability for developers and utilities while maintaining the City's responsibility to manage growth, protect adjacent land uses, and support Mesa's long-term energy and economic development objectives.	SRP	10/15/2025

Planning and Zoning Board - 10/22/2025
Public Questions/Comments

No.	Topic	Question/Comment	Staff Response
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1	Definitions	The proposed amendment, as written, would harm EV charging infrastructure deployment. Battery energy storage systems used to support EV charging could easily exceed 1 megawatt-hour, making the limit too restrictive. Such systems are often necessary because the electric grid cannot fully support high-power charging in many urban or residential areas. Restricting these systems would negatively impact communities and residents who rely on accessible, reliable EV charging. I am supportive of the intent ("the spirit") of the proposal but believe it is written incorrectly and needs revision to avoid unintended harm.	After the Planning and Zoning Board recommended adoption with conditions, staff prepared an alternative ordinance for City Council consideration that would establish a 5-megawatt threshold for a BESS to qualify as a principal use.
2	Definitions	The current 1-megawatt threshold for both principal and accessory uses poses a problem. For accessory uses, we recommend removing the threshold entirely. These are "behind-the-meter" systems that serve individual businesses or facilities, not utility-scale operations, and they should be exempt. For principal uses, we suggest increasing the threshold to around 5 megawatts, or following the approach taken by the City of Buckeye, which applies its rules only to utility-scale, grid-serving systems rather than using a fixed size limit.	After the Planning and Zoning Board recommended adoption with conditions, staff prepared an alternative ordinance for City Council consideration that would establish a 5-megawatt threshold for a BESS to qualify as a principal use. A defined threshold between accessory and principal uses will prevent staff from having to evaluate each battery project on a case-by-case basis to determine its scale relative to other uses.
3	Separation	We're also concerned about the proposed 1,000-foot separation requirement, which is much larger than what other cities have adopted. We recommend reducing that to about 150 feet, based on best practices from the National Fire Protection Association, the American Planning Association, and Phoenix's regional standard operating procedures for battery energy storage systems.	Residents at public meetings told us that the previous 400-foot separation was not far enough. We also heard safety concerns from others in the community. In an emergency, there may be air quality and water impacts from leaching. The 1,000-foot separation is intended to reduce those risks for homes where people live and sleep every day. During the study session, several council members asked us to evaluate a greater setback. Our review found standards from 100 feet to 1,000 feet. Since Buckeye recently adopted a 1,500-foot separation, we proposed a middle ground that responds to community concerns while keeping projects feasible. After the Planning and Zoning Board recommended adoption with conditions, an alternative ordinance will be presented to the City Council that includes a 400-foot separation.
4	Utility	We encourage adding a waiver provision, similar to what the City of Eloy uses, so projects that are otherwise beneficial to the city or the electric grid can be reviewed on a case-by-case basis even if they don't meet every technical standard.	Battery Energy Storage Systems are not recognized as a standalone use in the zoning ordinance. As a result, they do not have pre-existing rights that would trigger Prop 207 protections. Since each BESS Facility will require a PAD overlay, the review of each facility will be case by case.
5	Separation	The proposed 1,000-foot separation doesn't make sense. Mesa already allows large data centers just 400 feet from homes. These are massive facilities with a far greater neighborhood impact. If 400 feet is considered safe for infrastructure of that scale, it should be more than sufficient for battery systems that are smaller and far more tightly regulated. The science and the current safety protocols support applying that same standard here.	After the Planning and Zoning Board recommended adoption with conditions, an alternative ordinance will be presented to the City Council that includes a 400-foot separation.
6	Definitions	My concern is with how the ordinance treats smaller batteries. Specifically, the 1,000-kilowatt threshold is far too low and could easily be triggered by normal commercial or industrial activity, not just by utility-scale projects. To put that into perspective, a battery roughly the size of this table can hold about 1,000 kilowatts. That is only enough energy to power two electric vehicles using fast chargers. So if a business like a grocery store or a Starbucks installs just a few of these EV charging systems with small batteries attached, they would unintentionally be classified as a battery energy storage facility or even a utility under the way the code is currently written. That clearly does not match the intent of what the city is trying to regulate. In my work designing and building advanced manufacturing facilities, it is common for individual tools or systems to use small batteries. But as written, the ordinance would require adding up the capacity of every battery on an entire property. If the total exceeds 1,000 kilowatts, that property would be reclassified as a principal-use energy storage site. That is not a realistic or appropriate way to handle modern facilities that use distributed energy storage as part of their operations. This rule would also create problems for multi-tenant properties. Landlords will not want to monitor or restrict every tenant's equipment to stay under the limit, so many will likely ban batteries altogether to avoid compliance risks. In short, the 1,000 kilowatt threshold does not reflect the city's intended purpose and would have broad, unintended consequences for businesses across Mesa.	After the Planning and Zoning Board recommended adoption with conditions, staff prepared an alternative ordinance for City Council consideration that would establish a 5-megawatt threshold for a BESS to qualify as a principal use.
7	Setbacks	The proposed setbacks are excessive, and they are measured from property lines when they should instead be measured from the actual energy storage equipment.	Setbacks will be measured from the property lines to site structures, wherein the separation will be measured from the property line of the protected use to the BESS system
8	Sound	The proposed noise restrictions should be based on objective decibel levels that are applied consistently across compatible land uses.	The requirements for the sound study are based on those codified via our Data Center land use text amendments. The completion of the sound study itself will establish site-specific objective standards for noise.
9	Definitions	Not all battery energy storage facilities are utility-scale, so smaller systems should not be treated the same as large ones.	After the Planning and Zoning Board recommended adoption with conditions, staff prepared an alternative ordinance for City Council consideration that would establish a 5-megawatt threshold for a BESS to qualify as a principal use.
10	Utility	We need an "all of the above" approach to energy as the state and its manufacturing sector continue to grow. Battery energy storage systems are a critical part of that approach, helping strengthen and stabilize the electrical grid. Mesa should continue its leadership by supporting these facilities in a balanced, practical way that enables progress rather than restricting it.	Noted, thank you for your comment.

11	Separation	I strongly support an all of the above energy strategy and believe battery energy storage systems are critical to reliability, affordability, and economic growth. That said, the proposed 1,000 foot setback alarmed me because I have not seen a requirement like that elsewhere; it does not seem to fit and should be reconsidered in favor of best practices. Keep supporting these facilities in ways that encourage investment while protecting neighborhoods, and thank you for your public service.	The proposed 1,000-foot standard is a separation requirement, not a setback. A separation is measured from nearby residential property or homes and other sensitive uses, whereas a setback is measured from the project's own property line. As a result, the separation will apply only when those residential or sensitive uses are located near a project site.
12	Utility	Unlike many businesses, battery energy storage developers cannot simply build a system wherever they choose. In Arizona, these projects are driven by utility needs. In Mesa, for example, SRP requests batteries and purchases their output, so these systems are essential pieces of infrastructure, similar to substations. They are not speculative projects scattered randomly around the city. I encourage the board to review SRP's comments carefully, as they reflect the growing energy needs in our region. Mesa's continued growth and ability to capture jobs depends on having reliable energy infrastructure, and these battery energy storage systems are a critical part of meeting that demand.	Noted, thank you for your comment.
13	Utility	While our projects can comply with the ordinance and we support its passage, we ask that the city consider the broader goal of bringing additional capacity resources and other developers' projects online. SRP has specific near-term capacity needs, and our projects alone cannot meet all of them. It would be unfortunate if other projects were prevented from moving forward. We appreciate the city's efforts to create an ordinance that not only allows our projects but also enables all critical energy resources to come online efficiently.	A small number of projects are already in the city pipeline. One is under development, and two others have pre-submittals. Sections 15 and 16 of the draft ordinance provide a path for those projects to proceed without rezoning, pending Council approval. These sites will still be required to meet all applicable development standards, as well as the fire and building code requirements discussed today.
14	Separation	Battery energy storage systems are essential tools for increasing the efficiency and capacity of the electric grid. As noted in Mesa's 2024 Integrated Resource Plan, the deployment of battery resources combined with solar and wind has stabilized energy markets and lowered wholesale prices. I commend the city for developing an ordinance addressing battery energy storage systems, but I am concerned about the separation requirement for residential zoning districts. The updated draft increased the separation to 1,000 feet for residential zoning only, without clear justification or supporting data. There does not appear to be a reason to treat residential areas differently from other sensitive receptors, and Mesa's recently adopted data center ordinance maintains a 400-foot separation from residential areas. Increasing the separation requirement unnecessarily could hinder energy providers, including SRP, from meeting growing energy demand. It could also prevent projects that would provide jobs, generate tax revenue, and deliver critical energy capacity. I urge the board to reconsider the 1,000-foot separation requirement and return to the original 400-foot standard.	Mesa's zoning ordinance does not currently recognize Battery Energy Storage Systems as a standalone use, and it is therefore not permitted in the city. This ordinance will allow Battery Energy Storage Systems in the City under conditions that balance health, safety, and welfare in accordance with the City's Climate Action and Integrated Resource Plans. After the Planning and Zoning Board recommended adoption with conditions, an alternative ordinance will be presented to the City Council that includes a 400-foot separation.
15	Separation	I have serious concerns about the proposed 1,000-foot setback requirement for battery energy storage systems. These projects are already limited in where they can be located because they must be near electrical grid interconnections. Adding a 1,000-foot setback in addition to that requirement leaves virtually no sites in Mesa where these projects could be built. What begins as an attempt to protect the community quickly becomes a de facto moratorium on battery storage projects.	The proposed 1,000-foot standard is a separation requirement, not a setback. A separation is measured from nearby residential property or homes and other sensitive uses, whereas a setback is measured from the project's own property line. As a result, the separation will apply only when those residential or sensitive uses are located near a project site.
16	Separation	The 1,000-foot standard is arbitrary. I have seen no credible evidence or scientific data justifying that distance from homes. Without evidence, this number appears to be chosen without basis, which is not sound policy. Adopting this standard also sets a precedent that other municipalities will likely follow, creating a patchwork of overly restrictive rules that could effectively halt battery storage development across the state. I respectfully urge the board to reconsider the setback and reduce it to 100 feet. At a minimum, the city should recognize that this proposed standard is far greater than what is already required for comparable infrastructure, such as data centers. We need clear, evidence-based standards that protect safety while enabling the energy infrastructure our economy depends on.	The proposed 1,000-foot standard is a separation requirement, not a setback. A separation is measured from nearby residential property or homes and other sensitive uses, whereas a setback is measured from the project's own property line. As a result, the separation will apply only when those residential or sensitive uses are located near a project site. Staff review found separation standards ranging from 100 feet to 1,000 feet. With Buckeye recently adopting a 1,500-foot separation, we proposed a middle ground that addresses community concerns while maintaining project feasibility.
17	Environmental	The ordinance conflicts with Mesa's own Climate Action Plan and Integrated Resource Plan. These are not just aspirational documents. They are the city's roadmap for a cleaner, more resilient future. The Climate Action Plan specifically highlights energy storage as a way to cut emissions and support renewables. The IRP shows how batteries stabilize energy markets and lower costs, both of which are critical for attracting and retaining businesses. We request that the board revise the ordinance to better reflect Mesa's climate and economic goals.	Mesa's zoning ordinance does not currently recognize Battery Energy Storage Systems as a standalone use, and it is therefore not permitted in the city. This ordinance will allow Battery Energy Storage Systems in the City under conditions that balance health, safety, and welfare in accordance with the City's Climate Action and Integrated Resource Plans.
18	Separation	The proposed 1,000-foot setbacks are too extreme. There is no data to support this distance, and if applied, it would prevent two major energy storage projects that SRP has already committed to from moving forward. These projects are funded, designed, and ready to deliver clean, reliable energy to Mesa and the Southeast Valley. Passing the ordinance as written would eliminate 600 megawatts of clean energy that Mesa is expecting. We request that the board reconsider the setback requirements.	The proposed 1,000-foot standard is a separation requirement, not a setback. A separation is measured from nearby residential property or homes and other sensitive uses, whereas a setback is measured from the project's own property line. As a result, the separation will apply only when those residential or sensitive uses are located near a project site. Residents at public meetings told us that the previous 400-foot separation was not far enough. We also heard safety concerns from others in the community. In an emergency, there may be air quality and water impacts from leaching. The 1,000-foot separation is intended to reduce those risks for homes where people live and sleep every day. During the study session, several council members asked us to evaluate a greater setback. Our review found standards from 100 feet to 5,000 feet. Since Buckeye recently adopted a 1,500-foot separation, we proposed a middle ground that responds to community concerns while keeping projects feasible.

19	Economy	The ordinance sends the wrong message to the business community and to SRP. Mesa has repeatedly emphasized the need for energy to come online quickly to support growth, especially in Southeast Mesa. Battery storage is a key tool for economic development, keeping the grid stable, lowering peak energy costs, and making Mesa more attractive to high-tech and advanced manufacturing industries. Decisions should be based on real data, not arbitrary numbers, and NFPA fire safety codes already provide tested standards for these systems.	The City recognizes the value and need for BESS. That is why it is in the process of drafting an ordinance which would allow them in the City of Mesa as they're currently prohibited.
20	Waiver	We request that the city allow a waiver for projects that are already underway. They're essential for meeting Mesa's energy needs through 2029.	Battery Energy Storage Systems are not recognized as a standalone use in the zoning ordinance. As a result, they do not have pre-existing rights that would trigger Prop 207 protections. A small number of projects are already in the city pipeline. One is under development, and two others have pre-submittals. Sections 15 and 16 of the draft ordinance provide a path for those projects to proceed without rezoning, pending Council approval. These sites will still be required to meet all applicable development standards, as well as the fire and building code requirements discussed today.

Board Questions/Comments

No.	Topic	Question/Comment	Staff Response
1	Definitions	My understanding is that as an accessory use, these systems aren't required to meet the same standards. Is that correct? And what about cumulative systems? That wasn't really addressed, and it was one of the specific concerns that came up. Is there a cumulative restriction if there's more than one system on a single site?	To clarify, the one megawatt limit is cumulative for the entire site. That means you could have two 500-kilowatt systems or something like a 499-kilowatt setup. Anything that adds up to or exceeds one megawatt would trigger the requirement. Even if the systems are accessory uses, once the total capacity meets or surpasses that threshold, it applies. Staff did some research, and since this is a newer technology, there isn't a large amount of information available yet. One useful source was the American Clean Power Association, which has a model ordinance specifically for utility-scale battery energy storage systems. In that ordinance, they define the threshold for utility-scale as one megawatt or 1,000 kilowatts. That definition largely informed how we established our own threshold for what qualifies as utility-scale. The goal is to distinguish between true utility-scale facilities and other, smaller uses.
2	Definitions	The concern we're hearing is that we're grouping in smaller systems that, to be honest, are going to become much more common going forward. These systems don't really fit the definition of utility-scale in my opinion.	At one megawatt, a project becomes utility-scale. That's also why accessory uses under one megawatt aren't required to follow the new standards, only the underlying zoning district standards.
3	Definitions	I did a bit of research myself, and I think one of the speakers earlier was referring to what you're talking about with the one megawatt, or 1,000 kilowatts. That's basically two chargers for two units, right? That's what I'm getting at. For example, near my house there is a shopping center with probably a dozen chargers in one spot. Now, those are not battery systems, they are Tesla Superchargers tied directly into the grid, but it illustrates where things are heading. As battery technology expands, we will see more and more of these installations. So my question is, if we set that threshold, are we saying two or three of those would be the limit and that is it, you cannot have any more on a site? The separation between utilities and these smaller systems becomes a real challenge.	This was staff's recommendation based on the research we've done, the model ordinances we've reviewed, and everything we've found from around the country. If the Planning and Zoning Board feels that the one-megawatt threshold is too low, you can always make a recommendation that differs from what staff is proposing at this point. That's certainly an option moving forward.
4	Land Use	I've been thinking about how this compares to the data center ordinance, and maybe it's not a perfect comparison, but with that ordinance, data centers were classified as a type of warehouse, which allowed them in certain districts. That approach made them more regulated and more restricted overall. So, I'm wondering if the same kind of situation applies here with battery storage facilities. Is the issue that, right now, there's another part of the code that allows them to go wherever they want, and this ordinance is intended to make that more defined and regulated? Or do other parts of the code, like the fire code and other related standards, already provide that regulation? Are these actually comparable situations or not?	Right now, battery storage systems are not defined in the zoning ordinance and therefore aren't permitted in the city at all. This text amendment would actually allow those facilities and that type of use to be developed within the city.
5	Sound	Would the concerns raised in previous work sessions about noise and other issues have been related to something other than battery storage? From what I understand, those comments in the public input packet likely referred to other uses, not battery storage, since battery storage systems don't currently exist in the city. These concerns consider a hypothetical right?	No, these were concerns raised by the public at previous meetings specifically about battery storage system facilities being developed in the city. The comments focused on potential impacts to noise, the environment, and safety in the event of a fire. So those concerns were directly related to battery storage systems. These concerns are not related to an existing facility in the city today.
6	Separation	From reading the public comments, it looks like the separation distance for residential areas was 400 feet until recently. Is that correct? I notice there was some concern about the 400-foot standard, and some in the industry even suggested a smaller distance. Given that input, I'm curious what led to increasing the requirement to 1,000 feet and what factors or considerations spurred that change.	I think the reason for the change is that there is no established standard for this. During discussions, we heard from residents at public meetings who felt that the previous distance was not far enough. We also received input from other constituents outside of the industry. With data centers, the concerns were primarily about building size, aesthetics, and noise. With battery storage systems, the focus is more on safety. In an emergency, there are potential impacts to air quality and water from leaching. The 1,000-foot separation was intended to minimize those risks for residential areas where people live and sleep every day.

7	Fire	<p>Typically, it seems that it is just one cell in one container, with limited fire, mostly smoke, and the system can be shut down. It looks fairly contained. With the new safety standards, monitoring and technology have improved, and fire mitigation has gotten better. Perhaps we can have more confidence in those safeguards.</p>	<p>The industry has changed significantly, and standards have become much more stringent. Battery modules and units now undergo testing that simply wasn't required seven years ago when these facilities first appeared. Safety requirements have improved greatly through independent lab testing and code development.</p> <p>Fires are very site dependent, influenced by topography, weather, and other conditions. This year in Arizona, we've seen smaller fires with older technologies where spread from one container to the next occurred, such as a wind-driven event. These incidents are less likely now given the standards we are adopting.</p> <p>In addition to the zoning ordinance, the fire and building departments are updating to the latest fire and building codes, including NFPA 855, which specifically addresses battery storage systems. These standards will be used by the fire marshal's office and development services team during plan and site review before project approval.</p> <p>While there is still a possibility for fire to spread between containers, it happens far less frequently than past incidents. Mesa has codes and standards to address hazardous materials like batteries, and firefighting tactics have adapted accordingly. For battery fires, the strategy is not to immediately extinguish the involved container; allowing it to burn safely removes the hazard. Efforts focus on protecting surrounding containers to prevent spread, and firefighting strategies are designed specifically for these types of fires rather than traditional residential fires.</p>
8	Separation	I have a question about the difference between separation and setback. From how I read the ordinance, the separation is measured from property line to property line, for example from the perimeter of the battery facility to the property line of a residential use, which is where the 1000 foot requirement comes in.	The measurement is from the screen wall to the property line of the residential use or sensitive receptor. For example, if a site is on an arterial road, there is a setback from the arterial of 15 feet. That means the wall would have to be placed at least that far back. It is not measured from the property line itself.
9	Seback	Does the 100 ft setback inside the property then begin at the screenwall or is it from the property line?	That setback begins at the property line and goes inside the property to the first battery module.
10	Separation	<p>I was looking at vacant land where a site like this might be located, and I wanted to see how big 1,000 feet really is. I measured from the property line of the City Hall parcel north 1,000 feet, and it basically reaches the Serene front door. It is a significant distance, and I can appreciate that, but it seems a little excessive. For context, if you look along our freeways, like the 24 or the 202, those areas generally have industrial zones. With freeway buffers of 300 to 400 feet, plus drainage, and then residential on the north side, these parcels on the south side would still have to extend three or four hundred feet into the property before a battery energy storage site could be placed. The full 1,000-foot separation seems overly restrictive.</p>	<p>These battery energy storage projects are a bit different than data centers. With data centers, the focus was largely on aesthetics, screening, and noise. In this case, working with the fire department and building officials, there is an added safety component, which is why the proposed separation might be larger than for a data center. The barriers in between properties do not provide the same level of mitigation as they might for other uses.</p> <p>When we look at the proposed locations in the HI and GI zoning districts, the surrounding uses typically do not include residential areas because of compatibility considerations. Similarly, churches and schools are generally not located near these districts. You might see them occasionally, but it is not prevalent as it can be in LI districts where zoning begins to blend with residential areas. We don't anticipate too much conflict because of these transitions.</p> <p>During the study session with City Council, we discussed these proposals, and a few council members asked us to consider a greater setback. After reviewing research, we found setbacks ranging from 100 feet to 1,000 feet. Considering that Buckeye recently adopted a 1,500-foot separation, we aimed for a middle ground that addresses multiple concerns while still allowing projects to be feasible for development.</p>
11	Land Use	These have to connect to substations, which are located in light industrial zoning.	<p>One point to keep in mind is that there is still a lot of development happening in that area, and that is where we are likely to see significant manufacturing and a growing demand for higher energy. That does not mean we will not have substations in these areas where battery storage could be very effective.</p> <p>Another consideration is that with a thousand-foot setback, part of a site might not be usable, especially if it is an oddly shaped lot. The goal is not to penalize a parcel. For example, if it is an L-shaped lot and the battery storage is placed on the upper part of the L, the wall around the battery storage is what needs to meet the thousand-foot separation, not the property line that might be closer. This approach allows us to capture as many potential scenarios as possible.</p> <p>Many of the substations today are located in LI districts. The BESS facilities will go through the PAD process, which is essentially a rezoning. At that point, the council can review requests for HI or GI zoning on a case-by-case basis and determine whether the location and design are appropriate. That is the intent behind this approach.</p>
12	Separation	<p>One of the concerns is that the thousand-foot measurement is taken from the piece of equipment itself, not from the screening. The idea is to provide separation between the element that could pose a danger and residential areas. However, the screening is often much closer to the property line, though not always, which raises concerns. For example, NFPA 855 recommends a separation of 100 feet, not 1,000 feet, and not even 400 feet. So when we reference NFPA standards, that is the guideline.</p> <p>Another concern comes from the context of where these facilities might be placed. For example, my son's high school is located south of the Mesa Gateway Airport, and there is a stretch with multiple schools and churches. That is where the concerns about the setbacks come from.</p>	No staff response in meeting.

13	Waiver	<p>For existing projects that may already have pre-submittals or submittals, I know that with data centers we considered waivers and entitlements that ran with the land. Has there been any consideration for battery energy storage projects in the same way? I ask because there is a significant investment even at the planning stage, and I'm wondering if there is any possibility for a grandfathering approach.</p>	<p>This situation is a little different than with data centers because data centers were previously classified as warehousing and storage, so many properties already had rights to develop. Battery energy storage systems were never classified as another use within the zoning ordinance, so they do not have pre-existing rights that would require waivers under Prop 207.</p> <p>For the few projects that do have pre-submittals, one is currently under development, and there are two others with pre-submittals. We are using a different mechanism to allow those projects to proceed without needing to rezone, if council approves that mechanism in the ordinance. This is reflected in sections 15 and 16 of the draft ordinance. These sites would still need to comply with all development standards, as well as fire and building code requirements discussed today.</p>
14	Fire	<p>Are there other tools, similar to building construction where you can have different fire ratings on walls, or other measures for flammable or potentially hazardous materials, that could be used instead of relying solely on the setback to address public safety concerns?</p>	<p>The discussion today has been focused on the setbacks. That is obviously a high priority and high visibility item surrounding this topic. However, like any building system, these BESS facilities must comply with fire code requirements, which have adapted to include safety measures specific to these types of facilities, including the plans discussed in the study session. These plans provide an idea of how a site might evolve over time and include guarantees that sites will be decommissioned at the end of their life.</p> <p>As part of project review, each site will go through the plan review process, with input from the building official and the fire marshal as necessary. Each site is different, but many projects are required to submit fire and explosion testing as part of the latest fire code and NFPA standards. Hazard mitigation analyses are also submitted to address specific risks related to the technology at that site.</p> <p>Battery management systems are a key safety feature, designed to detect problems in the batteries before they lead to runaway events or fires. These systems were not present in some of the first-generation sites. Additional monitoring systems, such as infrared or other safety technologies, may also be used depending on the specific needs of the site. In summary, yes, there are additional safety measures beyond setbacks, but they are site-specific and tailored to the hazards present at each location.</p>
15	Fire	<p>Regarding the changes in the code, we have talked a lot about the facilities that meet the code and are not accessory uses. However, accessory uses also pose a public safety risk. Just because they are accessory does not mean the risk is any lower; it simply means the zoning code treats them differently. The fire and building codes are the tools used to address those risks on a case-by-case basis.</p>	<p>The fire code typically focuses on commercial properties. It generally does not apply to residential systems except in rare cases. There are requirements for residential systems. For example, if someone is installing a Tesla battery pack or another manufacturer's pack for EV charging in their home, the code requires that it cannot be placed in a closet or an area where people are sleeping.</p> <p>Early projects sometimes placed battery packs wherever they could fit inside the home, but that is no longer allowed. Residential systems now require a small separation from other energized equipment and similar hazards. The standards are written to cover a wide range of applications, from residential and commercial to industrial and utility scale. This provides the fire and building officials with the latitude to evaluate each site specifically based on the hazards present. This evaluation is done through the plan review and permitting process.</p>
16	Augmentation	<p>How do we make sure that we don't stifle the innovation in this space through this ordinance? How do we ensure that we can return to this topic when technology changes?</p>	<p>Batteries themselves are expected to get smaller. However, the total energy stored, whether in a large unit or a small one, is what matters. The focus is on the nameplate capacity and the energy stored, and on addressing any potential safety impacts.</p> <p>The fire and building codes specifically reference NFPA standards, which are the industry standard, and any updates are incorporated as they occur. The fire code also adds additional requirements on top of the NFPA recommendations. These codes are regularly updated, and as technology evolves, both the zoning code and fire code are reviewed to ensure they remain aligned with current safety needs.</p>
17	Process	<p>On the megawatt side, what are your thoughts on providing more flexibility? For example, could there be a caveat for case-by-case review so it is not a hard limit? If a project comes in and demonstrates compliance with fire code, building code, and shows that the new technology is effectively protecting the site, this approach wouldn't change the zoning code. Staff could consider a case-by-case review process or something similar.</p>	<p>It's important to note that all projects would still have to meet the fire code and building code requirements. There is no discretion on that. The case-by-case review from a planning perspective is different. Projects would still need to meet all requirements, and evaluating them individually from a quality-of-life perspective could be challenging. The fire code already addresses this on a case-by-case basis to ensure compliance.</p>