# Board of Aldermen Request for Action

**MEETING DATE:** 4/21/2026 **DEPARTMENT:** Development

**AGENDA ITEM:** Bill No. 3011-26, Battery Storage System Regulations – 1st Reading

---

**REQUESTED BOARD ACTION**
A motion to approve Bill No. 3011-26, amending sections of Chapter 400 of the zoning code regulating battery energy storage facilities. First reading by title only.

**SUMMARY**
This ordinance provides a new regulatory framework for the newer technology of Battery Energy Storage Facilities into existing codes. These facilities are currently allowed with a Conditional Use Permit per code, but there are no regulations or requirements pertaining to the specific use. With two of these projects potentially being presented for approval in the immediate future, providing specific regulations addressing safety, setback and buffering requirements to protect the public became paramount.

**PREVIOUS ACTION**
This would be the first regulation of this newer technology.

**POLICY OBJECTIVE**
Protect the public while allowing economic development in the city.

**FINANCIAL CONSIDERATIONS**
No direct impact, but future tax revenue from these facilities is anticipated once developed and constructed.

**ATTACHMENTS**

- ☒ Ordinance
- ☐ Contract
- ☐ Resolution
- ☐ Plans
- ☒ Staff Report
- ☐ Minutes
- ☒ Other: The Planning Commission meeting is available to view online.

**BILL NO. 3111-26** **ORDINANCE 331X-26**

# AN ORDINANCE AMENDING SECTIONS OF CHAPTER 400 OF THE ZONING CODE REGULATING BATTERY ENERGY STORAGE FACILITIES

**WHEREAS,** the Planning Commission advertised and held a public hearing on April 14, 2026 related to proposed changes to various provisions of the zoning codes that pertain to regulating Battery Energy Storage Facilities; and

**WHEREAS,** the zoning code authorized Battery Energy Storage Facilities as a regular electric utility use without any use specific regulations pertaining to these facilities; and,

**WHEREAS,** it was recognized that adding specific regulations, primarily pertaining to fire safety and setback and buffering would be in the best interest of the citizens; and

**WHEREAS,** following the public hearing, the Planning and Zoning Commission recommended approval of the proposed ordinance; and

**WHEREAS,** the Planning Commission has provided its' statement required by §400.560.B of the Code, which is attached as Exhibit A; and

**WHEREAS**, the Smithville Board of Aldermen deems it to be in the best interest of the City of Smithville to adopt said amendments to provide for regulations for Battery Energy Storage Facilities in various districts in the City.

**NOW THEREFORE BE IT ORDAINED BY THE BOARD OF ALDERMEN OF THE CITY OF SMITHVILLE, MISSOURI AS FOLLOWS**:

**SECTION 1.** Chapter 400 of the Code of Ordinance is amended by adding a new section 400.375 regarding Battery Energy Storage Facilities, to be numbered and read as follows:

Section 400.375 Battery Energy Storage Facilities

A. Purpose And Intent

1. The purpose of these Supplementary District regulations is to provide a framework for the development, installation, and operation of Battery Energy Storage Facilities (BESF) while mitigating potential negative impacts on neighboring properties and addressing fire safety concerns. These regulations aim to balance the need for renewable and non-renewable energy storage with the safety, health, and welfare of the community. They further seek to protect property values, ensure environmental sustainability, and promote responsible land use planning.

2. These regulations are also intended to establish clear permitting requirements, safety standards, operational protocols, decommissioning obligations, and compliance mechanisms to ensure that BESFs are integrated safely and effectively into the community without creating undue risks.

3. A BESF shall only be permitted with full compliance of the requirements of this Section, and with any Conditional Use Permit requirement in the specific zone district regulations of the property involved.

B. Definitions.

For purposes of this section, the following additional definitions shall apply:

BATTERY ENERGY STORAGE FACILITY (BESF)

A facility utilizing electrochemical storage systems to store and distribute electrical energy for later use.

LARGE-SCALE BESF

A BESF with a storage capacity exceeding one (1) megawatt-hour (MWh), typically serving utility-scale or commercial needs.

SMALL-SCALE BESF

A BESF with a storage capacity of one (1) MWh or less, typically for residential or small commercial use on the site of such use.

EMERGENCY RESPONSE PLAN (ERP)

A comprehensive plan outlining safety measures, emergency contacts, fire response protocols, and failure mitigation procedures.

THERMAL RUNAWAY

A condition in which a battery cell overheats, leading to a self-sustaining chain reaction that can result in fire, explosion, or system failure.

FIRE SUPPRESSION SYSTEM

A system specifically designed to prevent or extinguish fires associated with lithium-ion batteries, such as water mist, gas suppression, or foam-based fire retardants.

DECOMMISSIONING PLAN

A document detailing the procedures and financial assurances for the safe removal and disposal of BESF components at the end of their operational life.

MONITORING SYSTEM

A twenty-four/seven (24/7) real-time system that continuously tracks temperature, voltage, current, and other critical safety indicators to prevent failures.

C. Permitted Locations And Parcel Size Requirements.

1. Large-Scale BESF shall be permitted in agriculture and industrial districts as identified in the underlying district regulations, including through a conditional use permit (CUP) process if required in the relevant zone district sections.

2. Small-Scale BESF shall be permitted as an accessory use right in agricultural, residential, business and industrial districts, provided they comply with local fire codes and do not exceed noise or environmental impact thresholds.

3. Large-Scale BESFs are prohibited within two hundred fifty 250 feet of existing residential dwellings, schools, hospitals, daycare centers, senior living facilities, or other sensitive land uses unless an approved mitigation plan demonstrates that potential impacts will be effectively minimized.

4. Facilities must not be located within a designated floodplain or wetland unless specifically approved with appropriate flood-proofing measures in place.

5. Minimum Parcel Size. Large-Scale BESFs shall be located on parcels no smaller than five (5) acres to ensure adequate space for buffers, setbacks, and fire mitigation zones.

6. Maximum Parcel Size. The maximum parcel size for a BESF shall be fifty (50) acres, unless the applicant demonstrates that additional acreage is necessary for operational efficiency and impact mitigation.

D. Setback And Buffer Requirements.

1. Large-Scale BESF in Industrial districts must follow the setback and buffering standards described in the Site Plan Development Ordinance, Sections 400.390-400.440 of this code.

2. Large-Scale BESF within any non-industrial district must maintain the following minimum setbacks and buffers:

A. Setbacks

i. One hundred (100) feet from all property lines.

ii. 250 feet from the nearest residential structures (includes building permit applications under review at time of conditional use permit application) or preliminarily or final platted subdivisions for residential uses.

B. Buffers

i. A landscaped buffer of at least fifty (50) feet in depth located within the 100-foot setback shall be required to visually screen BESF from adjacent properties. The buffer must include a combination of evergreen and deciduous trees, as well as shrubs that provide year-round screening. The applicant must submit a Landscape Plan as part of the application for approval. The Landscape Plan must include:

a. A site map showing the location and species of all plantings.

b. A maintenance plan to ensure long-term viability of plantings.

c. Use of native, drought-resistant, and non-invasive plant species where feasible.

d. An implementation timeline ensuring the buffer is established before facility operations commence.

The City reserves the right to require additional plantings or alternative screening methods based on site conditions and adjacent land uses. The landscaped buffer must be maintained for the life of the facility, with any dead or dying vegetation replaced within the next planting season.

3. Facilities in all districts must install security fencing of at least eight (8) feet in height, with appropriate warning signage and limited-access gates. Battery energy storage systems, including all mechanical equipment, shall be enclosed by a fence with a self-locking gate to prevent unauthorized access unless housed in a dedicated-use building.

4. Any outdoor lighting must be shielded and directed downward to minimize light pollution and glare on adjacent properties.

E. Fire Safety And Hazard Mitigation.

All BESFs must comply with National Fire Protection Association (NFPA) 855 and International Fire Code (IFC) standards as updated from time to time. Facilities must incorporate a fire suppression system specifically designed for the battery chemical type to be used and its hazards.

1. An Emergency Response Plan (ERP) must be submitted to and approved by the local Fire District before facility operation. This plan must include: emergency shutoff procedures; Fire Department access points and site layout; hazard identification and fire mitigation strategies, and spill containment and cleanup protocols. Signage for the battery energy storage system shall be in compliance with ANSI Z535 and shall include the following information: the type of technology associated with the battery energy storage system; any special hazards associated; the type of suppression system installed in the area of the battery energy storage system, and 24-hour emergency contact information.

2. As required by the National Electric Code (NEC), disconnect and other emergency management information shall be clearly displayed on a light reflective surface. A clearly visible warning sign concerning voltage shall be placed at the base of all pad-mounted transformers and substations.

3. Warning signage spacing shall be determined with the battery energy storage plan.

4. All BESFs must be equipped with thermal management systems to prevent overheating and detect early signs of thermal runaway. BESFs must be equipped with emergency venting systems to release gases in a controlled manner to prevent explosion hazards. Operators must coordinate with local Fire Departments to conduct annual fire response training specific to battery energy storage hazards. Each BESF shall have a remote monitoring system accessible to first responders in case of emergency.

5. The area within twenty (20) feet on each side of a battery energy storage system shall be cleared of combustible vegetation and surfaced with gravel or other non-combustible surfacing.

F. Environmental And Operational Standards.

1. Stormwater Management Requirements. All facilities must submit a Stormwater Management Plan (SWMP) for approval as part of the application process. The SWMP must outline measures to prevent chemical contamination of groundwater and nearby water bodies through stormwater runoff control, filtration systems, and containment barriers. Facilities must implement best management practices (BMPs), such as oil/water separators, spill containment structures, and designated hazardous material storage areas.

2. Routine Maintenance And Compliance. Facilities must conduct system testing and submit maintenance reports to the local permitting authority annually. These reports must include: battery performance assessments; fire suppression system testing results; and inspection logs for containment and stormwater management structures.

3. Facilities must comply with all applicable Federal, State, and local environmental regulations regarding hazardous waste disposal and battery recycling.

G. Decommissioning And Site Restoration. Facility owners must submit a comprehensive decommissioning and site restoration plan for approval by the City. This plan must include a detailed timeline, cost estimates, and a financial assurance mechanism to ensure the facility is properly decommissioned and the site restored to its pre-development condition unless an alternative land use plan is approved.

1. Financial Security Requirement. A financial security bond, escrow account, or other City-approved financial mechanism as identified in Section 425.440 must be established before any construction or site preparation begins to cover the estimated decommissioning and reclamation costs.

2. Conditions For Financial Security. The financial security must be in an amount not less than the lesser of 25% of the project construction value or the estimated cost of reclamation and restoration (as approved by the city) and shall be adjusted every five (5) years based on the cumulative Consumer Price Index for All Urban Consumers (CPI-U) from the date of the last approved estimate, or an equivalent inflation index

determined by the City. The estimated decommissioning cost must be recalculated every five (5) years throughout the facility's operational life and if recalculations indicate an increase in decommissioning costs, the financial security must be adjusted to reflect the new estimate. If costs decrease, the County may approve a reduction in the required financial security.

3. The applicant must submit an estimate for decommissioning with the initial approval, and every five (5) years thereafter for review and approval by the City's engineers.

4. Initiation And Completion Timeline. Decommissioning must begin within twelve (12) months of facility cessation of operations. The decommissioning process must be carried out in accordance with the approved decommissioning plan and completed within the timeframe specified by the City.

5. Removal Of Facility Components. All structures, foundations, equipment, underground utilities, and access roads must be removed unless otherwise approved as part of an alternative land use plan. All materials must be disposed of or recycled in compliance with applicable local, State, and Federal regulations, particularly those governing hazardous waste disposal.

6. Site Restoration. The site must be restored to its pre-development condition, including soil stabilization, regrading, re-vegetation, and remediation of any environmental contamination. If an alternative post-decommissioning land use is proposed, the facility owner must submit a separate land use plan for City approval before decommissioning begins.

7. Non-Compliance And Default. If the facility operator fails to comply with decommissioning requirements, the City may call the bond or utilize the provided financial security to complete decommissioning and reclamation. In the event of default due to non-payment, the City retains the right to use the financial security to fund decommissioning activities.

8. Use Of Remaining Funds. If decommissioning costs exceed the financial security amount, the facility owner remains liable for additional costs. If decommissioning costs are less than the secured amount, the City may withhold any remaining balance until the decommissioning process is completed to the City's satisfaction.

**SECTION 2.** Amending Section 400.570 of the code by adding a new provision to be numbered and read as follows:

Section 400.570.D.8

Battery Energy Storage Facilities shall, when a conditional use permit is required herein, provide the application information as stated in Section 400.375 and such application standards shall be used in the evaluation as contained in 400.570.C.

**SECTION 3.** Amending Section 400.180 of the code by deleting section 400.180.C.3 in its' entirety and replacing it with a new section to be numbered and read as follows:

Section 400.180.C.3:

Electric generation plants, electric utility maintenance yard, Battery Energy Storage Facilities, permanent concrete or asphalt manufacturing or mixing plants, prisons, mining, quarrying of gravel, sand or stone.

**SECTION 4.** Amending Section 400.090 of the code by deleting section 400.090.C.5 in its' entirety and replacing it with a new section to be numbered and read as follows:

Section 400.090.C.5:

Transportation, communication and utility facilities, including electrical power stations and substations; Battery Energy Storage Facilities; railroad stations, depots and maintenance facilities, so long as adjacent to an existing railroad line; postal services; sewage treatment plants; telephone exchange stations and relay towers; and towers for communications transmission.

**SECTION 5.** Amending Section 400.190 of the code by adding a new provision to be numbered and read as follows:

Section 400.190.B.2.f. Battery Energy Storage Facilities.

PASSED THIS 21st DAY OF APRIL, 2026.

_____

Damien Boley, Mayor

ATTEST:

_____

Linda Drummond, City Clerk

First Reading: 4/21/2026

Second Reading 5/5/2026

Exhibit A

Statement of the Commission

Amendments To The Text. When a proposed amendment would result in a change in the text of these regulations but would not result in a change of zoning classification of any specific property, the recommendation of the Planning and Zoning Commission shall contain a statement as to the nature and effect of such proposed amendment and determinations as to the following items:

1. Whether such change is consistent with the intent and purpose of these regulations;

*These changes will add protective regulations where the intended use is already allowed, so it is consistent with the intent and purpose of the zoning code.*

2. The areas which are most likely to be directly affected by such change and in what way they will be affected; and

*These changes will add protective regulations where the use is otherwise allowed, so the areas affected are the same as currently impacted.*

3. Whether the proposed amendment is made necessary because of changed or changing conditions in the areas and zoning districts affected or in the area of jurisdiction of such changed or changing conditions.

*These amendments are necessary due to changed or changing conditions within the City of Smithville's jurisdiction.*

SMITHVILLE missouri **STAFF REPORT**

| | |
|---|---|
| **Date:** | April 15, 2026 |
| **Prepared By:** | Jack Hendrix, Development Director |
| **Subject:** | Battery Energy Storage Facilities Regulations |

The City has been in discussions with two separate potential projects in the City Limits concerning operations involving Battery Energy Storage Systems/Facilities. One of these facilities intends to submit zoning and development applications to authorize such a facility in the immediate future. The other anticipates filing its' application in early summer. One property is on land zoned A-1, the other is on property currently zoned B-3 but in the future land use plan, it is proposed to be within the industrial category. Assuming a rezoning from B-3 to the Comprehensive plan's proposed I-1 or I-2 district(s), both properties would then allow, subject to a Conditional Use Permit, such facilities. The A-1 district allows "transportation, communication and utility facilities, including electrical power stations and substations" with a conditional use permit. The I-1 district allows Electric generation plants and lesser included uses for those plants, again with a conditional use permit.

Currently, we only have the limited, minimum regulations for Conditional Use Permits which include:

> *1. The proposed conditional use complies with all applicable provisions of these regulations, including intensity of use regulations, yard regulations and use limitations.*
>
> *2. The proposed conditional use at the specified location will contribute to and promote the welfare or convenience of the public.*
>
> *3. The proposed conditional use will not cause substantial injury to the value of other property in the neighborhood in which it is to be located.*
>
> *4. The location and size of the conditional use, the nature and intensity of the operation involved in or conducted in connection with it and the location of the site with respect to streets giving access to it are such that the conditional use will not dominate the immediate neighborhood so as to prevent development and use of neighboring property in accordance with the applicable zoning district regulations. In determining whether the conditional use will so dominate the immediate neighborhood, consideration shall be given to:*
>
> *a. The location, nature and height of buildings, structures, walls and fences on the site; and*
>
> *b. The nature and extent of landscaping and screening on the site.*
>
> *5. Off-street parking and loading areas will be provided in accordance with the standards set forth in these regulations and such areas will be screened from adjoining residential uses and located so as to protect such residential uses from any injurious effect.*
>
> *6. Adequate utility, drainage and other such necessary facilities have been or will be provided.*

*7. Adequate access roads or entrance and exit drives will be provided and shall be so designed to prevent traffic hazards and to minimize traffic congestion in public streets and alleys.*

Based upon the limited nature of the regulations, and specifically no regulations that addressed these facilities specifically, Staff worked with the Smithville Area Fire Protection District to draft a zoning ordinance that would provide a regulatory framework for these facilities. The proposed ordinance would also add these specific uses into the code definitions to differentiate between the existing language and this new technology.

The proposed structure is to add Battery Energy Storage Facilities to the Supplementary District regulations. This placement will allow additional definitions specific to these facilities not contained elsewhere in our code, as well as specifically require these regulations to be included in the Additional Requirements provisions of the CUP codes. Lastly, there are provisions that would add the use specifically to the A-1 Agricultural conditional use list, as well as the I-1 Light Industrial conditional use list. Lastly, the current draft would authorize these uses in the I-2 Heavy Industrial districts without a conditional use IF the use is 500 feet from any residential use but require a conditional use permit if closer. *The I-2 district would otherwise allow this use without a conditional use permit without the additional 500 feet separation listed.

At the April 14, 2026 Planning Commission meeting, this ordinance was presented for Public Hearing. At that hearing, as well as the discussion of the ordinance language later, both city staff and Fire Chief Dave Cline spoke on the safety issues that this ordinance addresses, with some specific Fire Safety issues SAFPD has reviewed, trained upon, and are prepared to address if an issue arises in the future. With these additional regulations, the Fire Chief state that his department would be in a very comfortable position to protect the community in the event of fire.