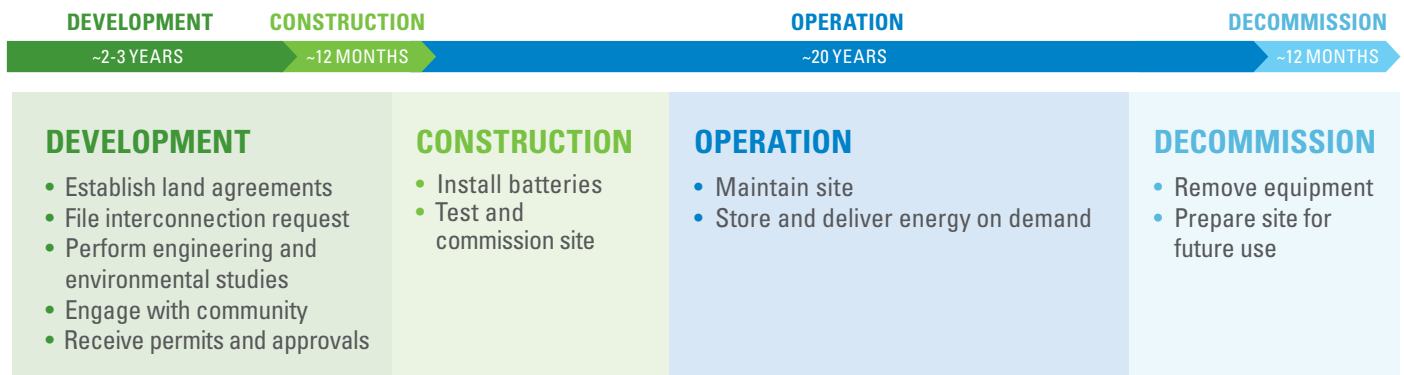


# BATTERY ENERGY STORAGE SYSTEM (BESS) DEVELOPMENT FACT SHEET

## Phases of developing a battery facility



## Ameren Missouri and battery storage FREQUENTLY ASKED QUESTIONS

### How do battery energy storage systems work?

Battery energy storage systems store electricity when it's plentiful and release it when it's needed most. This helps keep energy reliable during high energy usage periods and gives the grid more flexibility to respond in real time.

### How do batteries help balance electricity supply and demand throughout the day?

Batteries help by providing a fast-acting resource that can be adjusted as conditions change. This allows Ameren Missouri to respond to shifts in customers' energy needs, and keep electricity flowing efficiently as usage rises and falls throughout the day.

### How do batteries strengthen the reliability of the electric grid?

Batteries are another tool in the toolbox to keep the grid running reliably and dependably. Batteries provide essential backup power and flexibility, supporting grid reliability by quickly responding to changes in electricity demand and helping maintain a stable supply for customers. That helps keep the grid strong and able to deliver reliable service to customers around the clock.

### How long do battery storage systems last?

The batteries used in utility-scale energy storage systems today are expected to last approximately 20 years, depending on the frequency in which they are charged and discharged. Individual battery modules can be replaced as needed and then disposed of properly.



### **Will battery systems prevent an outage at my residence?**

Utility-scale battery storage systems are focused on making the electric grid more reliable overall. By supplying energy during peak periods or unexpected disruptions, they help reduce the likelihood of widespread outages. Batteries provide almost instantaneous power, stepping in when the grid needs immediate support.

### **Development**

#### **How does Ameren Missouri decide where to develop battery facilities?**

We prioritize locations that can be developed alongside planned generation projects, as well as land we already own near current generation facilities or substations. Co-developing battery storage with other generation helps reduce costs, limit new land use and improve reliability by allowing these resources to work together.

#### **How long does construction of a battery facility typically take?**

Typically, most facilities take approximately one year of on-site work to construct once all necessary approvals are complete. We plan projects carefully to minimize disruption to surrounding communities.

#### **Where will the batteries be made?**

We intend to continue using American-made systems and will have more specifics as each project is developed.

#### **How much land do battery systems require and how much energy will it generate?**

That will be determined on an individual project basis. Even the largest facilities, which can reliably power thousands of homes for hours, can be contained to a couple dozen acres or less.

#### **Who will construct and operate the facilities?**

Ameren Missouri. The company and its predecessors have been safely operating energy centers and providing reliable energy for more than a century.

### **How is the land managed at the battery site?**

The proposed battery facilities are integrated into larger energy centers, which follow a vegetation management plan to care for the land.

### **What are Ameren Missouri's end-of-life plans for battery storage systems?**

Lithium-ion batteries are recyclable. Just like at Ameren Missouri's other facilities, when materials reach the end of their useful life or are decommissioned, the company follows applicable laws and regulations to determine how they'll be reused, recycled or disposed of properly.

### **Health & Safety**

#### **What are Ameren Missouri's policies about safety and battery systems?**

Safety is built into every aspect of battery storage design and operation. We follow industry best practices, use advanced monitoring systems and work closely with local first responders to protect people and property.

#### **Can batteries stand up to Midwest weather?**

Yes. Battery systems are designed and tested to operate reliably through extreme heat, cold, wind and severe weather common in the Midwest, with protective enclosures and continuous monitoring. Ameren Missouri maintains and oversees these systems to ensure they perform safely and consistently in all seasons.

#### **Are there health risks living near battery systems?**

Battery systems operate safely near homes and businesses across the country every day, including in dense urban environments. Battery systems do not generate waste, odor, emissions, or other byproducts, and are similar to your cellphone's battery. Built in safety features and emergency plans are designed to protect both the community and the environment.