

SMART ENERGY PLAN

2024 Progress Report



At Ameren Missouri, we know you need reliable power now more than ever. That's why we're building a balanced mix of new generation to increase capacity, supporting the growing needs of our customers. And we're investing in smart technology to reduce outages and respond faster when they do occur. We're making the grid stronger today to meet your needs tomorrow.



ENERGY TO STAY CONNECTED



Scan here to learn more about Smart Energy Plan projects in your area.

Created by forward-thinking legislation passed by the Missouri General Assembly, the Smart Energy Plan has spurred thousands of grid modernization projects. We are upgrading aging infrastructure with new and upgraded substations and installing smart technology to more rapidly detect outages and respond faster when they do occur. We are adding stronger poles and upgraded power lines to make the system more resilient. Through the Smart Energy Plan, Ameren Missouri is also investing in new energy generation – increasing capacity to meet the growing daily needs of homes and businesses and providing critical support during times of peak demand, ensuring we power the quality of life for all customers.

“Our customers depend on Ameren Missouri to continue investing in reliability, whether that’s through new sources of on-demand energy or strengthening the grid by upgrading aging infrastructure. Through these continued investments, we are ensuring that we have a reliable and resilient energy system to serve customers today and well into the future.”

— Mark Birk,
Chairman and President, Ameren Missouri

WORKING TO KEEP RATES LOW



These critical improvements provide families and businesses with the energy they need while keeping costs well below the Midwest and national averages. We continue working to keep customer rates as low as possible while making the necessary investments to build the stronger, smarter and reliable energy system our customers expect. That’s why our residential base rates are approximately 27%* below the Midwest and national averages compared to other electric utilities.

27% below the Midwest and national average residential rates

*Source: Average Residential Electric Prices – Edison Electric Institute (EEI), “Typical Bills and Average Rates Report” for 12 months ended June 30 each year through 2024. Ameren Missouri residential rates are 25% below the Midwest average and 28% below U.S. average according to the latest EEI report.



8,200
new jobs*



\$6.6B
in new capital
investment*



4,600
retained jobs*



1,200
Missouri-based
suppliers



Located in
60+
counties



\$2B
spent with MO vendors
and contractors*

GROWING MISSOURI'S ECONOMY

The Smart Energy Plan supports local communities by promoting economic development to grow jobs and investment throughout Missouri. In 2024, 22 businesses announced plans to move to or expand in our service territory, resulting in more than \$3.1 billion in planned capital investment and creating more than 1,500 new Missouri jobs. Some examples include:

- **Capital Sand**, a supplier of frac sand, invested \$6 million to open Missouri's first compressed natural gas (CNG) fueling station in Cape Girardeau, Missouri, in October 2024.
- **ICL**, a leading global specialty minerals company, announced plans to invest approximately half a billion dollars and create more than 150 jobs at a new production facility in North St. Louis.
- **Unilever** announced two expansions of its Jefferson City operations in 2024, totaling a \$130 million investment to retain and create new jobs.

Oasis at Lakeport, an entertainment destination under construction at Lake of the Ozarks, is being supported by Smart Energy Plan upgrades to a nearby substation. The half a billion dollar project is expected to create hundreds of jobs when it opens in 2025.



We had a lot of options on where to invest half a billion dollars in the Oasis project in multiple different states. But we chose Missouri and Lake of the Ozarks because of the collaboration with Ameren. It's no secret that access to power and other utilities is the biggest impediment to economic development and real estate development nationwide. We're proud to say our project is powered by Ameren and proud to have Ameren as a partner.

— **Jeff Tegethoff**,
Oasis at Lakeport Developer



Since the start of Ameren Missouri's Smart Energy Plan, the company has partnered with hundreds of Missouri-based suppliers to transform the state's electrical grid. In Franklin County, a newly built substation was outfitted with equipment produced just 3 miles away by WEG Transformers USA. WEG has supplied more than two dozen transformers for Smart Energy Plan projects in the past five years, helping the company expand its manufacturing footprint in Washington.



Very likely some of our employees who made this transformer will be on the receiving end of power from this substation. The grid reliability not only improves quality of life for our employees but is critical for us to be a successful manufacturer here.

— **Phillip James**,
General Manager, WEG Transformers USA



**Since the beginning of the Smart Energy Plan*

A SMARTER GRID



At Ameren Missouri, we understand that any disruption in service can be frustrating. That's why we're harnessing the power of smart technology to help reduce the frequency and duration of outages. We have installed more than 1,700 smart switch devices on the grid through the Smart Energy Plan. This technology can automatically detect an outage and quickly reroute power, reducing outages from hours or days to minutes or even seconds and improving reliability by up to 40%.

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Smart switches are a critical part of our efforts to minimize impacts to customers, especially during storms. They allow our crews to stay focused on making repairs and returning the grid to normal operations.

— **Ben Lynch,**
Director of Distribution Operations,
Ameren Missouri

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In 2024, smart switch technology helped prevent more than 50,000 storm-related outages in Missouri – equivalent to approximately 8 million minutes of customer outages. Since 2021, smart switches prevented more than 170,000 customer outages during major storms.

In Excelsior Springs, Ameren Missouri installed nearly a dozen smart switch devices to help address reliability issues in the area. The new and upgraded smart switches are benefiting approximately 4,400 homes and businesses. In addition, the company strategically placed several of the new smart devices near Excelsior Springs Hospital to support reliability at the health care facility.

50K storm-related outages
in Missouri prevented

STORM HARDENING



Ameren Missouri maintains more than 4,000 miles of overhead subtransmission lines. Thanks to system hardening upgrades through the Smart Energy Plan, we are addressing some of the oldest and most at-risk circuits in the state – upgrading aging wood poles and adding composite poles to support greater reliability, especially during storms.

In southeastern Missouri, crews completed storm-hardening upgrades on 6 miles of lines between Morehouse and Miner. The improvements included the addition of air flow spoilers, more than two dozen composite poles, and six “super storm” poles – a dual-layer composite pole built to withstand violent winds. These upgrades will help prevent the risk of damage during high winds and reduce cascading damage to multiple poles, supporting reliability and helping to speed up restoration times.

0 outages on hardened lines during storms in 2024

SUBSTATION MODERNIZATION AND GRID RESILIENCY



Substations are the heart of the system. They step down higher voltages to deliver energy safely and efficiently to homes and businesses. The Smart Energy Plan allows Ameren Missouri to target substations most in need of upgrades – those that are past their useful life or that don’t have enough capacity to handle the needs of neighboring customers. Ameren Missouri has invested in improvements to more than 130 substations since 2019.

Approximately 2,700 customers are benefiting from upgrades to an aging transformer in Jefferson County. The Platin substation had been operating at or near capacity with transformers originally installed in the 1960s and ‘70s. These factors increased the potential for overloading and outages due to aging equipment failure, particularly during the cold winter months. The aging transformers were upgraded with new units better equipped to handle the current electricity demands of the community, with room for additional load growth in the future.

37 new or upgraded substations in 2024

UNDERGROUND CABLE REVITALIZATION



We are upgrading aging underground cable, much of which is at least 40 years old. Due to degradation from direct contact with the soil, we are upgrading the cable and adding protective conduit, which will help to prevent outages and continue to support the reliability of the energy delivery system.

The Russell Revitalization Project is a multi-year effort through the Smart Energy Plan to target aging circuits and overcrowding, which can negatively impact reliable service. The project focuses on subtransmission lines that run south of downtown St. Louis. More than a dozen distribution substations are fed from this line, delivering power to approximately 41,000 homes and businesses, including some of the city’s largest employers.

CUSTOMER BENEFITS OF SMART METERS



Nearly all of Ameren Missouri’s electric customers now have access to the benefits of smart meter technology. The program, which began in 2020, is wrapping up a full year ahead of schedule.

The new meters offer several customer benefits, including automatic outage reporting and a smoother process for starting and stopping service.

Customers with an electric smart meter can leverage the power of this technology to adjust their usage and potentially save money by taking advantage of Ameren Missouri’s My Energy Manager. This interactive online dashboard shows the specific estimated energy usage of each appliance and allows Ameren to offer personalized savings recommendations based on individual usage data and surveys.

INVESTING IN RELIABLE ENERGY



Ameren Missouri continues to invest in a balanced mix of new, lowest-cost sources of generation to support reliability for the power needs of all our customers now and in the future.

Planning and design work is underway on the Castle Bluff Energy Center. Castle Bluff is an 800 MW quick-start generation facility designed to deliver energy on the coldest winter days and the hottest summer afternoons and support the grid when renewable energy generation is otherwise unavailable. By taking advantage of existing infrastructure and transmission line access on the site that the company already owns, Ameren Missouri will be able to reduce overall construction time and costs to customers.

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One of the key aspects of Castle Bluff is the ability to start up on demand and quickly change the level of energy it provides to the grid. When solar energy predictably rises and then falls, it is vital to have Castle Bluff working as a partner to renewables.

— **Ajay Arora,**
Senior Vice President and Chief Development Officer,
Ameren Missouri

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Ameren Missouri acquired three new solar facilities with a combined capacity of 500 MW. The Huck Finn Renewable Energy Center is located in Audrain and Ralls counties in Missouri, while the Cass County and Boomtown Renewable Energy Centers are located in Illinois. Together, these solar facilities are anticipated to generate enough energy to power 92,000 homes annually.

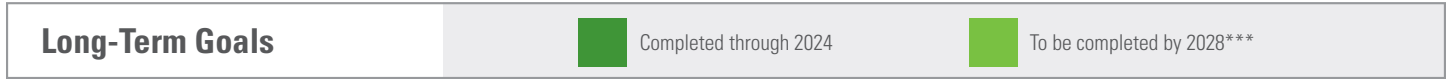
500 MW of solar energy capacity added in 2024

BY THE NUMBERS *What's Ahead?*

Every investment through the Smart Energy Plan – from new sources of energy generation to substations and stronger poles – makes the grid more resilient and reliable. As we move forward, each new upgrade builds on the ones before it. Ameren Missouri is ready to continue this critical work through the Smart Energy Plan, to power the quality of life for years to come.



745
Projects
Completed



Upgraded Power Line Miles*

Among 4,200 miles of line, we're addressing those with the lowest performance.



Substations

We are addressing capacity limitations and replacing the oldest substations in the system.



Smart Switches

Installation of smart switches has improved reliability by up to 40%.



Smart Meters**

Upgraded smart meters enable convenience, choice and control for customers.



Underground Cable Miles Upgraded

We are upgrading aging underground cable to meet modern reliability standards.



Downtown Underground Revitalization Miles Upgraded

Upgraded underground infrastructure supports reliability in downtown St. Louis.



All numbers accurate as of December 2024.

**This refers to Ameren Missouri's subtransmission circuits.*

***Does not include gas modules. All installations by 2024.*

****Long-term targets are estimates and contingent on funding levels.*