

# SMART ENERGY PLAN 2021

Progress Report



You deserve to know what the future of energy looks like and what it means for you and your loved ones. At Ameren Missouri, we are investing in **smart technology, stronger poles** and **upgraded power lines** to reduce outages and respond faster when they do occur. We are working diligently to create a **more resilient, more reliable** and **more sustainable energy system** while empowering you and your community every step of the way.



# Smart Energy Plan 2021 Progress Report

## AMEREN MISSOURI SMART ENERGY PLAN

In 2018, the Missouri General Assembly passed forward-thinking energy policy legislation (Senate Bill 564) that enabled Ameren Missouri’s Smart Energy Plan. In the first three years of implementation, Ameren Missouri has completed more than 2,000 projects across our territory that spans 24,000 square miles. Our \$8.4 billion plan for 2022 to 2026 will further our efforts to create a stronger, smarter, cleaner, more resilient and secure electric grid.

*“To me, this says this community is going to be here and this is about the future of this community. We have supported and signed onto the Smart Energy Plan and we plan to support it moving forward.”*

**—Becky Cleveland, Executive Director, Brookfield Area Growth Partnership (2021)**

## STRENGTHENING THE GRID

The Smart Energy Plan invests in upgrades to aging foundational grid assets such as poles, wires, substations, transformers and cables. The plan deploys smart technology to improve reliability and resiliency at each phase on the electric grid.



**Substations** take voltage from high to low energy so it can be safely moved across the grid to homes and businesses. The Smart Energy Plan is helping to modernize our oldest substations — many are more than 50 years old — to be more reliable, including deploying smart technology to detect outages even faster.

**Smart switch equipment**, strategically placed along power poles, can reduce outages from hours to minutes and even seconds as Ameren Missouri crews safely repair damaged lines. These devices can improve reliability up to 40%.

We are upgrading **power lines and poles** to better withstand strong winds and storms. This includes stronger poles made of composite material to stand up to strong Midwest storms. Increasing power line capacity provides flexibility to reroute power to minimize customers experiencing an outage while crews safely make repairs.

We are upgrading aged **underground cable**, much of which is at least 40 years old, which has degraded from direct contact with the soil. Cable is being upgraded proactively and placed in protective conduit to prevent outages and make the energy delivery system more reliable.

New **smart meters** for Ameren Missouri customers mean convenience, choice and control, including new rate options that are tailored for you. We have installed 463,000 smart meters so far and all electric customers will have a new meter by the end of 2024.

*“This is a project that shows the proof is in the pudding. The money is being spent and it’s being spent wisely.”*

**—Rep. Ron Hicks, MO House, Dist. 102**

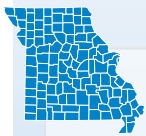
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## GROWING MISSOURI'S ECONOMY

The Smart Energy Plan supports Missouri's economic growth by working with outside vendors which increases the need for electric infrastructure jobs — from engineering and planning to construction. We partner with Missouri-based companies for materials and services like switchgear, transformers and design plans. Working together we are supporting the local and statewide economy.

*"Ameren being dedicated to diverse suppliers means everything to our company. And they do it all over the place. They don't just do it in areas that require diversity. And that's what helps our companies grow."*

— **Michael Kennedy,**  
president KAI Enterprises



**56%**

of the suppliers we worked with in 2021 were Missouri-based



**\$75.4M**

with Missouri-based diverse suppliers



**\$438M**

spent with Missouri vendors and contractors on Smart Energy Plan projects in 2021

2021

*"Our business is up 25 percent plus. We see great development opportunities to bring more people on board and grow our facility. We look forward to participating in Smart Energy Plan projects in the future."*

— **Mark Hemmann,**  
account manager,  
Hitachi Energy

The Smart Energy Plan includes an economic development incentive to help attract and retain businesses to the Ameren Missouri service territory. The economic development incentive is increasing Missouri's competitiveness and helping communities grow because it is one of the nation's most competitive economic development incentives. This has resulted in 30 announced projects. **These projects mean:**



**\$2.7B** new capital investments in Missouri



**4,600** new jobs



**4,200** retained jobs

## KEEPING RATES AFFORDABLE

We continue working to keep rates as low as possible while making the necessary investments to build a stronger, smarter and cleaner energy system for customers. That's why our residential rates remain **25% below the Midwest average** compared to other electric utilities.\*

\*According to the EEI "Typical Bills and Average Rates Report" for the 12 months end June 30, 2021.

**Residential rates**  
**25%**  
below the  
**Midwest average**

## Smart Energy Plan 2021 Progress Report

## PROJECT STORIES

**Stronger Power Lines and Poles — Hayti**

In 2021, a line of severe storms including an EF-3 tornado went through the southernmost portion of eastern Missouri. This line of storms was associated with multiple tornados across the Midwest as well as over 17,000 customer outages in Missouri alone. Smart Energy Plan investments were critical to the restoration of power across the area.

A new sub-transmission line was directly hit by the tornado. The line was installed in 2020 specifically to protect customers from storms and high winds. The composite poles prevented a cascading collapse and failure. While damage did occur, the composite poles were found to be undamaged and only needed to be straightened. Power was restored in half the time thanks to these new upgrades.

*“This is what can happen when you do the right thing. We had seen what needed to be done down here after the big freeze. We needed to have an upgrade. And the way Ameren Missouri presented the bill to us was a no-brainer to support that at the level we did.”*

— Rep. Donald Rone Jr., MO House, Dist. 149

**Viper Switches, Stronger Poles and Wires — Warren County**

Ameren Missouri’s Smart Energy Plan is bringing greater reliability to more than 2,000 customers in St. Charles and Warren Counties. Near Foristell, a distribution automation device called a “Viper Switch” was installed to rapidly detect and isolate

damage, rerouting power where possible – reducing outages and speeding power restoration sometimes from hours to seconds. Our goal is to have one smart switch for every 400 customers in our service territory across the state. This means about 3,000 smart switches will be installed on the grid.

**Cross Keys Substation — St. Louis**

A new substation in Florissant now serves 8,000 customers and replaces aging equipment more than 50 years old. New substations with automated sensors and smart technology equipment, which more rapidly detects and isolates outages, speeds power restoration. Switchgear for this substation was made by AZZ Switchgear Systems in Fulton. They are made in Missouri, by Missourians and for Ameren Missouri customers. We know that keeping our partners local when possible helps the economy grow and benefits the communities we serve.

*“I learned so much about how a substation works; especially this one, which provides power to Ameren Missouri customers in the Creve Coeur area, who are also my constituents. These tours help educate legislators, especially those of us that are members of utility committees, about the Smart Energy Plan and how Ameren Missouri is investing in the energy grid since the legislature passed SB564 in 2018.”*

— Rep. Tracy McCreery, Mo House, Dist. 88

## Smart Energy Plan 2021 Progress Report

## SMART METERS ENABLE NEW RATE OPTIONS

Our next generation of smart meters work through two-way communication between the meter and our upgraded network. The meters can signal us electronically – and we can signal back to them – giving you improved reliability, faster outage response, and the convenience of evaluating and managing your energy usage online or through our mobile app.

Through the new smart meter program, Ameren Missouri now offers a range of residential rate plan options. With these options, you can save by shifting your energy usage to off-peak hours, when demand is lower, and you'll pay less.

There are two basic options: **Anytime Users** is a flat rate, and **Evening/Morning Savers** is our new off-peak /on-peak "standard" rate.

Customers now have a rate comparison tool to help them choose a rate that's best for them. Customers with upgraded smart meters can log in to their Ameren.com account today to see the tool.

*"This is a huge investment in our city, and it sends a signal that Ameren is leading the way in investing that will pay returns for many, many years to come."*

**Tishaura O. Jones, St. Louis mayor**

## Easy Ways to Save with Off-Peak/On-Peak Rates

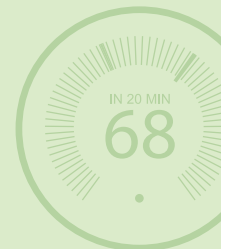
**By shifting usage slightly and taking small steps to conserve energy, customers can start saving right away.**

▶ Plan ahead and save by charging your electric vehicle overnight.



▶ Load the washing machine, but run it during off-peak times.

▶ Program your thermostat to adjust during peak times, or adjust it when you leave the house.



▶ Use the delay function or manually start the dishwasher during off-peak times.

## COMMITTED TO CLEAN

Through the Smart Energy Plan we are adding clean energy to the grid through programs such as Neighborhood Solar. This program is open to all non-residential Ameren Missouri electric customers who have space for solar panels, including (but not limited to) parking lots, open land or rooftops. Ideal partners in the program are institutions, schools, non-profit organizations and other non-residential locations that act as a hub in the community. The first location is now producing renewable energy at the Habitat for Humanity St. Louis Headquarters where solar panel canopies are creating energy for all Ameren Missouri customers. We are working with Southeast Missouri State University in Cape Girardeau, Delmar DivINe and the Maryland Heights Community Center for similar projects in the St. Louis region.



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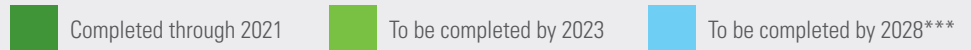
## WHAT'S AHEAD?

Thanks to the bipartisan legislation that created the Ameren Missouri Smart Energy Plan, we continue to move Missouri forward. Our current Smart Energy Plan extends through 2023, but there will still be more work to do, and Ameren Missouri is committed and ready to continue doing it for the benefit of our customers and the communities we serve, upholding our mission to power the quality of life.

*The Smart Energy Plan has been a game changer for BBC Electric. We've doubled our workforce and have invested in more equipment to take our company to a whole new level.*

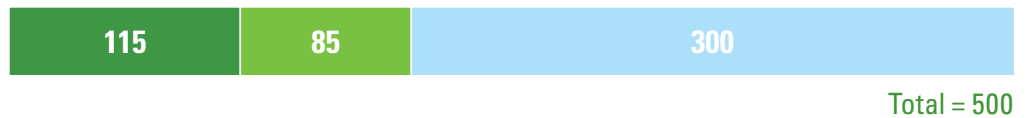
**James Farrar,**  
superintendent, BBC Electric

### Long-Term Goals



#### Upgraded Power Line Miles\*

Among 4,400 miles of line, we're addressing some of those with the lowest performance.



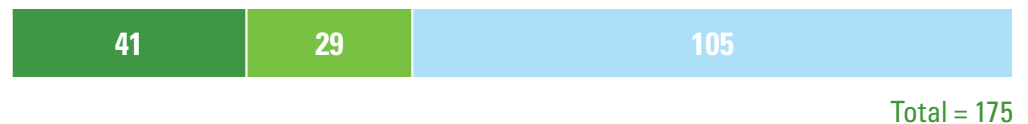
#### Smart Switches

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



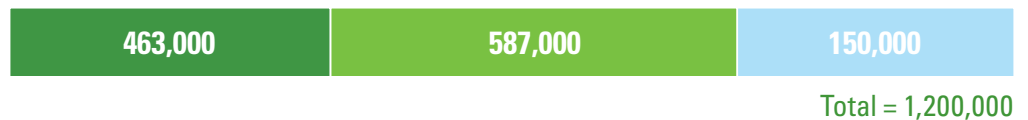
#### Substations

Among our 900 substations, this will address some of the oldest in the fleet.



#### Smart Meters\*\*

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



\* 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.

*This is a really important investment by Ameren to help us keep the lights on in North County when we have some of the severe weather that the Midwest is famous for.*

**Sam Page,**  
St. Louis County Executive