

Missouri Families, Small Businesses, and Households Need a Modern, Upgraded Grid

CEA Calls on Missouri Legislature to Pass Legislation in 2018 to Create Smarter, More Stable, and More Secure 21st Century Electric Infrastructure

Consumer Energy Alliance is calling on Missouri to improve, modernize and upgrade its aging electric grid by passing consumer-friendly rate cap legislation in 2018.

Missouri's families, households, seniors, small businesses, and manufacturers are falling behind in reliability, the cost of electricity, and the tremendous benefits our economy would realize by integrating into a smarter, more integrated grid that can optimize clean energy resources, guard against cyber threats and restore power in the event of a storm or outage.

Time for Action

The need for updating Missouri's grid policy is long overdue. Legislators have the choice before them to build smarter, more secure, and stable energy infrastructure that not only provides upgrades that Missouri's families and businesses need, but also protects their pocketbooks.

Benefits of a Modern, Upgraded Grid

The electric grid is transforming into a digital network that will deliver more reliable power to homes and businesses across the country. The modern grid will utilize telecommunications and information technology infrastructure to enhance the reliability and efficiency of the electric delivery system.

Missourians need a 21st century grid that is:

Smart:

- A smart grid delivers more customer control and conveniences on energy usage
- Better protection against power outages
- Shorter outages if they do occur
- Faster identification and correction of power quality issues

Secure:

- A more secure grid better safeguards against physical and cyber attacks
- Provides stronger defenses to stay ahead of emerging threats

Stable:

- A stable system provides more predictable and consistent energy bills
- Stops the trend of Missouri's electric rates rising four times faster than the national average
- Strong and strict regulatory oversight and protections for families and those on fixed incomes struggling to make ends meet

The definition of grid modernization varies from state to state and sometimes even from city to city. Broadly, we can understand grid modernization to include any investment or change that will make the electric system more dynamic, flexible, reliable, resilient, safe, and responsive to the needs and desires of all customers.

Missouri's Current Dilemma

The backbone of any state's economy is its ability to deliver energy affordably and reliably. Missouri is still operating under a policy and regulatory structure that was created more than 100 years ago and on average the Show Me State's grid is older now than it has ever been. According to the American Society of Civil Engineers Infrastructure Report Card, Missouri's electric grid scores received a D+ with an under-investment gap at an estimated \$177 billion between 2016 and 2025. Much of Missouri's electric grid infrastructure is aging and was put in place in the 1950s and 1960s and is showing signs of age and wear. According to Ameren Missouri, the average age for its power substations is 45 years and the poles carrying electricity through its distribution system are an average age of 40 years. Replacing hundreds substations and over 500,000 poles could cost several billion dollars.

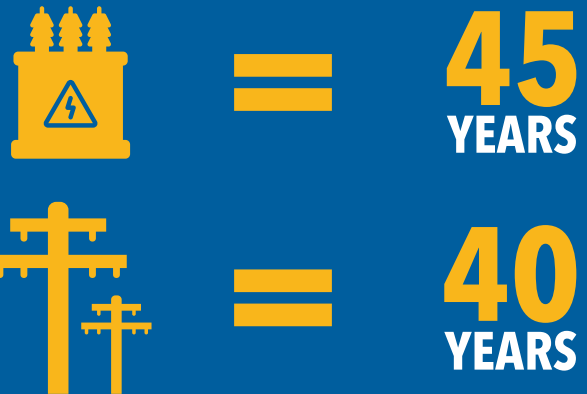
The lack of forward looking policy that can more quickly upgrade the system is also costing consumers and families in Missouri. Fortunately, the state has been able to rely on traditionally low-cost power but between 2007 and 2016 federal energy data showed that electric rates in Missouri increased 46.7 percent, while the national average increase was only 11.2 percent. In fact, Missouri had the third-highest increase of any state over that time period.

The fundamentals underlying the buildout of a modern, connected smart grid requires the ability to invest and plan for a more integrated future giving customers and consumers options and choices in our ever-connected world. It's time that Missouri's more than 100 year old electric policy gets an update for the 21st century. Without improvements, the state's historical competitive advantage is being increasingly put at risk.

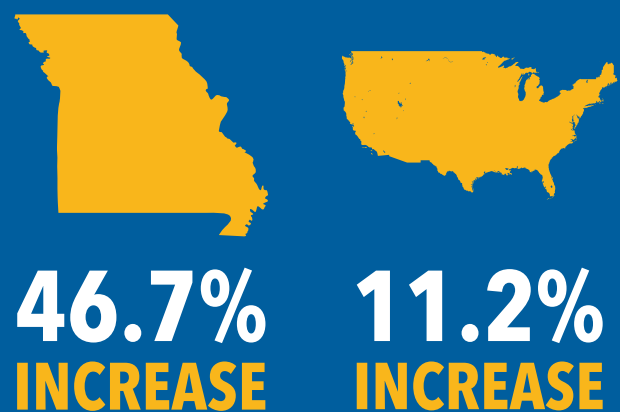
Moving Forward

Despite these challenges, Missourians have an opportunity to address the existing issues and deficiencies with its grid modernization efforts. New legislative proposals have been introduced that

Average Age for Power Substations and Poles



Electric Rates Increased Between 2007 and 2016



would allow energy providers to make the types of investments needed to make Missouri's grid more connected, resilient, and secure while also capping electric rate increases for our hard-working families, seniors, and households. If enacted, this would produce tremendous savings for cash-strapped homeowners and our neighborhood stores and

businesses where energy costs often make up one of their largest sources of after-tax expenses. The Missouri Grocers Association estimated that if one proposal with a 3 percent cap on rate increases were passed, the five-year savings for a typical family over the status quo in Missouri would be \$850. For a locally owned grocery store, that would translate into a \$25,000 savings and for a large retail store that would amount to \$170,000 over five years. This is real, life-changing money that could be reinvested in communities, schools, employee healthcare, or for a family simply to afford to go out to eat or buy new clothes for school.

Customers would also get the benefit of having more reliable service should an outage occur with improved technology that can report and repair outages more quickly as well as integrate more renewable resources into the energy grid. Increasingly, these improvements represent the type of smart, capable infrastructure the public wants put in place.

A recent survey by the Remington Research Group found that 65 percent of Missourians support legislation that accelerates energy company

investment in smart grid technologies that can prevent and quickly restore power outages. That same survey found that 72 percent of Missourians favored energy companies expediting investments in technology to harden the grid from cyber threats and hackers.

The need for hardening and protecting our energy infrastructure could not be timelier. Federal law enforcement officials issued a joint alert to the energy sector in June 2017 stating that “advanced, persistent threat actors” were stealing network information to access energy companies and utilities. According to media reports, cybersecurity analysts have also warned that Russian hackers have also created malware designed to mimic similar attacks those launched on the Ukrainian electric grid, which briefly shutdown 20 percent of the power to Kiev. In a recent article in Wired, the tech security firm Symantec found that in over 20 cases, “hackers obtained what they call operational access: control of the interfaces power company engineers use to send actual commands to equipment like circuit breakers, giving them the ability to stop the flow of electricity into US homes and businesses.”

About Consumer Energy Alliance (CEA)

Consumer Energy Alliance (CEA) brings together families, farmers, small businesses, distributors, producers and manufacturers to support America’s energy future. With more than 450,000 members nationwide, our mission is to help ensure stable prices and energy security for households across the country. We believe energy development is something that touches everyone in our nation, and thus it is necessary for all of us to actively engage in the conversation about how we develop our diverse energy resources and energy’s importance to the economy.

Learn more at ConsumerEnergyAlliance.org.