



A Utility Company for the Future

BY ANTHONY MORAN

Richard J. Mark Chairman and President / Ameren Illinois

CEO of Ameren Illinois, Richard Mark, believes that the unique utilities market in the state of Illinois, along with the company's growing deployment of technology, will enable it to serve the customers of today and tomorrow.



FOR CHAIRMAN AND PRESIDENT, Richard

J. Mark, Ameren Illinois is an energy com-

pany like few others thanks to the unique

way the energy sector in Illinois has been

deregulated in recent years. Not only do

customers have the freedom to choose

from whom they acquire their electric supply, but Ameren Illinois and its fellow

public utilities also operate under the prin-

ciple of performance-driven formula rate

making—enabling the company to both

stay focused on its investment strategy,

and benefit customers by improving electric and natural gas service reliability and keeping costs stable.

"I joined Ameren Illinois in June of 2012, about a year after Illinois passed strategic legislation aimed at modernizing the electric grid," Mark told **CEO Magazine** in an exclusive interview. "It not only made our delivery system harder and more storm resilient, but it was also about looking into the future of what businesses wanted in terms of how automation and a smarter grid could bring economic development to the state. I remember telling my team that we're going to build the grid that our kids' kids will need and utilize 50 or 60 years from now."

Ameren Illinois is part of the Ameren Corporation, an American power company created on December 31, 1997, by the merg-





\$2.6 billion Revenue Collinsville, US HQ 3,340 (IL Segment) Employees NYSE:AEE Stock

"At Wright Tree Service, our company and daily operations are guided by a set of values: safety, integrity, excellence, teamwork, innovation, and family. Ameren shares our commitment to these values, and we are proud to partner with them to provide safe, reliable power to the community."

> SCOTT PACKARD / CHAIRMAN AND CEO OF WRIGHT TREE SERVICE

er of St. Louis, Missouri's Union Electric Company and the neighboring Central Illinois Public Service Company (CIPS-CO Inc. Holding) of Springfield, Illinois. Based in St. Louis, Ameren Corporation now acts as a holding company for several power and energy companies, with Ameren Illinois serving 1.2 million electric and 816,000 natural gas customers across 43,700 square miles in the southern four-fifths of Illinois. Looking at a map of the United States' Midwest, Ameren

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> RICHARD J. MARK / CHAIRMAN AND PRESIDENT OF AMEREN ILLINOIS

AMEREN SERVICE TERRITORY



Electric Service Territory
 Electric & Natural Gas Territory

Illinois' footprint is larger than the state of Indiana.

In 1995 shareholders of both CIPSCO Inc. and of its neighboring utility of twice its size, the S&P 500-listed Union Electric Company, approved the merger of the two companies, which were to then be combined as Ameren Corporation. Both of those former utilities had traded publicly on the New York Stock Exchange. At the time of the merger, Union Electric had assets of nearly \$600 million and CIPSCO about \$210 million. Following the merger, Union Electric began doing business as AmerenUE, now known as Ameren Missouri. Today, with nine power plants Ameren Missouri serves over 1 million million power customers and 110,000 gas customers, in Missouri, where more than half of its customers reside in St. Louis.

In 2004, Ameren acquired from Dynegy Inc. its third partner from the 1952 Mid-



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west Power Pool system, Illinois Power Company. That utility had traded publicly on the NYSE through the 1980s, and paid dividends since 1947. As of the late

"E2 is a proud strategic partner in delivering Ameren's transmission and distribution projects. Our successful relationship is based on the alignment of core values and our shared commitment to safety, integrity, collaboration, and diversity. We commend Ameren for its vision in the energy sector and look forward to our continued partnership.

HERSH SALUJA / CEO OF E2

THE DIGITAL WORKS OF AMEREN ILLINOIS

As Ameren Illinois thrives to power the quality of life of millions of people throughout Illinois and Missouri, the company has built a culture of leadership that fosters innovation to drive growth by exploring emerging technologies and implementing new platforms.

From process automation to state-of-theart Smart Grid communications networks, Ameren is enabling smart technology infrastructure for improved safety and reliability to improve operational efficiency, provide a differentiating customer and co-worker experience, deliver technologies to customers, and enable the best and brightest digital talent to lead today and transform tomorrow.

1980s, the company generated electricity and natural gas, almost entirely from coal plants, with less than 1% fueled from oil and gas. In 1991, with about \$360 million in assets, Illinois Power became the subsidiary of holding company Illinova Corp. In a merger completed in 2000, Illinova Corp. became a wholly owned subsidiary of Dynegy Inc., in which Chevron Corporation also took a 28% stake. Dynegy in turn had been created in June 1998, from the merger of Chevron's natural gas and natural gas liquids businesses with Dynegy's predecessor, NGC Corp.

Following the 2004 Ameren acquisition of the IP utility, that subsidiary became AmerenIP. In 2010, all utilities merged to become Ameren Illinois Company.

"We cover approximately two thirds of the



- KNOW WHAT **TO EXPECT**
- WHAT IT WILL COST
- TRUST THAT SAFETY IS **OUR PRIORITY**



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state, so there's a lot of opportunities for manufacturing and industrial expansion in Illinois," Mark explained. "One of the things companies look at when they're thinking about expanding is whether there's land available at a good price. Secondly, is the electric and natural gas infrastructure going to be there to meet their needs? That's where we come into play. Not only are we making sure we have the smart infrastructure ready, but that it's robust, reliable, and above all, affordable."

STRATEGIC INVESTMENTS

Mark credits the unique performance-driven formula rate making system in Illinois

For example (...) it was very important for a large industrial customer of ours that they have a sufficiently sized natural gas pipeline in order to make the decision as to whether they would stay in that community or not. And we were able to make sure that happened by making the necessary strategic investment and upgrading the pipeline."

RICHARD J. MARK / CHAIRMAN AND PRESIDENT OF AMEREN ILLINOIS



STRONG RELIABILITY

Ameren's electric distribution reliability performance has improved, as measured by the System Average Interruption Frequency Index (SAIFI). This important industry benchmark shows how we have reduced the total number of interruptions per customer served per year.

AFFORDABLE RATES, ¢/KWH





ULTRA SOLUTIONS IN UTILITY & TECH

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SABRINA CHISHOLM / PRESIDENT OF ZEMPLEO

for giving Ameren the regulatory certainty to make investments in the energy grid and earn a predictable return on those investments.

AMEREN CORPORATION AT-A-GLANCE

8,800 EMPLOYEES

\$182 MILLION ANNUAL FUNDING OF ELECTRIC AND NATURAL GAS EFFICIENCY PROGRAMS IN 2018

50% BOARD OF DIRECTORS MEMBERS WHO ARE WOMEN OR ETHNICALLY DIVERSE

> 64,000 SQUARE MILES SERVICE TERRITORY

ELECTRIC CUSTOMERS

2.4 MILLION

900,000+ NATURAL GAS CUSTOMERS

5,000+ HOURS OF VOLUTEER WORK

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A QUANTA SERVICES COMPANY

"We're one of the few states in the country that has performance-based rate reviews with the public utility commission," he explained. "So, we have to meet certain metrics for things such as reliability, affordability, and a number of different operational objectives. And we have to make these improvements while keeping rates from increasing by 2.5% each year. If we meet these criteria, our return on equity—our profit, if you will—is based on the 30-year treasury, plus a base rate of 5.8%. That's

pretty unique in this country. We've made significant upgrades to the grid, and yet our all-in rates are about 20% below the national average."

For Mark, future growth for Ameren Illinois means making smart and strategic capital investments to expand and improve its electric and natural gas infrastructure. The company's engineering teams work with regional site development organizations to gauge what the future will hold for

"You have to make sure that your team stays focused on the basics. The basics of good communication and coordination particularly when it comes to your field resources and how you allocate them—is absolutely crucial."

RICHARD J. MARK / CHAIRMAN AND PRESIDENT OF AMEREN ILLINOIS



AMEREN ACCELERATOR PROGRAM

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The 2019 Ameren Accelerator program, an innovative public-private partnership between Ameren Corporation, the University of Missouri System, UMSL Accelerate and Capital Innovators, is supporting six startup companies around the United States and the world.

This year's program focused on the theme of *"Smart Cities – Connected Communities"* in building a more sustainable energy environment. The six participating companies worked to develop technologies that enable businesses, consumers and municipalities to make smarter decisions and improve the quality of life for communities. Those technologies include industrial engines with lower carbon emissions and technology that will help people in developing nations control their power sources.

- Allumia (Seattle, Wash.) makes it possible to provide funded energy efficiency upgrades to commercial and industrial buildings in a cost-effective and time-efficient manner.
- ClearFlame (Chicago) is developing an alternatively-fueled, drop-in-ready engine for the heavy-duty market, which includes marine, agriculture, transportation, power generation, rail and construction applications.
- Eden GeoTech (Somerville, Mass.) is developing a water-less and injection-free reservoir stimulation technology, which uses electric energy to change the petro-physical properties of rock formation, create micro-fractures and increase permeability.
- **HeXalayer** (Louisville, Ky.) is developing a new generation of high-capacity lithium-ion battery technology using innovative carbon material called ML Graphene. The nanomaterials-based technology significantly improves the capacity of energy storage and has been specifically tested for rechargeable batteries.
- Ovon Tech (Manchester, England) developed the Smart Radiator Valve with distributed temperature acquisition and thermoelectric energy recovery systems.
- Shyft Power Solutions (Oakland, Calif.) enables homes, businesses and energy companies to remotely monitor, manage and control their power sources from mobile or web applications.



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The DEP

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TIMELINE AMEREN ILLINOIS

1929: The Bagnell Dam on the Osage River was completed.

1931: Union Electric begins operating as a holding company for other power companies, carrying hydroelectricity to longer distances than had ever been achieved in the past.

1950s: After acquiring utilities and gas operations in and around Alton. Illinois, Union Electric becomes the third largest distributor of natural gas in Missouri and the second largest in Illinois.

1963: Union Electric completes the construction of one of the largest pumped storage plants in the decade, the then-350megawatt Taum Sauk Plant, in Reynolds County, Missouri.

1984: Union Electric adds nuclear energy to its services as the Callaway Nuclear Generating Station began providing 1,143 megawatts of power from Callaway County, Missouri.

1995: Shareholders of both CIPSCO Inc. and of its neighboring utility of twice its size, the S&P 500-listed Union Electric Company, approved the merger of the two companies, which were to then be combined as Ameren Corporation. The merge was completed on December 31, 1997, when the two public companies became one, as Ameren Corporation.

2000: Ameren formed the holding company, AmerenEnergy Resources. It contained two further subsidiaries, AmerenEnergy Marketing, and AmerenEnergy Generating.

2010: Ameren's three Illinois operating companies merged to become Ameren Illinois Company.

2015: Ameren became the first major energy company to open an Innovation Center at the Research Park, University of Illinois at Urbana-Champaign.

Today Ameren Illinois is featured as a Fortune 500 company and stands out among the nation's largest investor-owned electric or gas utility, providing vertically integrated electric services to more than 2.4 million electric and more than 900,000 natural gas customers in a 64,000 square mile area. "These investments are being paid for by customers through their utility bills, and we feel it's very important that the companies we put out there in the field, as well as our own

RICHARD J. MARK / CHAIRMAN AND PRESIDENT OF AMEREN ILLINOIS

business and the wider economy to make sure they are making the right investments in order for their customers to have the energy resources that they need.

teams, look like the communities we serve."

"For example, recently, on the eastern side of the state, one of our key industrial customers needed reassurance that our natural gas service would provide the capacity they needed to expand production," Mark said. "It was a big factor in their decision whether to stay in that community or relocate. We were able to allocate the capital and make a strategic investment to upgrade the pipeline and keep the company, and the jobs, at home." DEPLOYING TECHNOLOGY

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Key to the viability of these investments has been Ameren's willingness to embrace automation and digital technology to reduce its operating costs and boost efficiency. Mark pointed to everything from the use of iPads by the company's gas and electric service workers in rural areas—to enter

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PMI Energy Solutions (PMIES) is an electrical construction, maintenance and technical services contracting company based in Batavia, Illinois.

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"Whether we're talking about electrification, or economic development in the state more generally, we're charting a new future for the energy industry,"

RICHARD J. MARK / CHAIRMAN AND PRESIDENT OF AMEREN ILLINOIS

and update work orders and send them back to the processing department and customer service representatives in real time—to Ameren's use of sensors to collate the information needed to detect and identify technical problems within the infrastructure and make the suitable replacements to components before they fail.

"We use drones to carrying out some power line and infrastructure inspections," he explained. "Another exciting thing we're doing is reducing cost and energy losses by optimizing our voltage

REDUCTIONS IN CO₂ EMISSIONS

35% REDUCTION BY 2030



80% REDUCTION BY 2050 levels. We're finding that by installing sensors, we can moderate the voltage we deliver to our customers to eliminate line loss. In turn, their electric bills are lower and the grid is cleaner and more energy efficient."

Nevertheless, Mark refuses to underestimate the importance of human capital to the ability of Ameren Illinois to maintain standards, grow efficiencies, and meet the needs of its customers. "You have to make sure that your team stays focused on the basics," he said. "The basics of good communication and coordination—particularly when it comes to your field resources and how you allocate them—is absolutely crucial."

VITAL PARTNERSHIPS

Ameren Illinois also achieves operating efficiencies by utilizing a group of key strategic vendors. Implementing hundreds of infrastructure projects a year, as the company does, requires deployment of trusted partners that can meet Ameren's quality standards and deliver projects on time and on budget. "One of the keys is how we manage those resources," Mark stressed. "It requires a greater level of oversight, coordination, and project management. We have to make sure that projects are being carried out efficiently and cost effectively. That's also where our diversity and inclusion program comes in. These investments are being paid for by customers through their utility bills, and we feel it's very important that the companies we put out there in the field, as well as our own teams, look like the communities we serve."

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"The relationship that we have with our strategic partners is very much a collaborative one," he added. "We recently completed a major natural gas transmission project that we would not have been able to complete without utilizing outside resources, so these partnerships are absolutely vital for us."

Ultimately, Mark continues to believe that in the utilities industry, it is the customer that matters most—even as their needs, and those of business and the wider world, begin to change dramatically. "Whether we're talking about electrification, or economic development in the state more generally, we're charting a new future for the energy industry," he stressed. America's largest utility companies rely on DMA's expertise to maintain, protect, and expand their reliability and safety of their networks.





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