



Designated Entity Pre-Qualification Filing by Ameren

On behalf of its affiliates

ATX East, LLC and
Ameren Transmission Company of Illinois

09/27/2022

September 27, 2022

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1. Introduction

Ameren Corporation (hereinafter "Ameren") submits this pre-qualification application under the terms of the PJM Amended and Restated Operating Agreement, Schedule 6. Section 1.5.8(a) and PJM Manual 14F Pre-Qualification Process. Ameren requests to confirm our pre-qualified status as a designated entity for Ameren Corporation, ATX East, LLC, and Ameren Transmission Company of Illinois. This application will highlight the qualifications, experience, capabilities, and financial strength to deliver transmission projects in a timely and cost-effective manner of the Ameren family of companies. Ameren's experience and expertise in transmission planning, construction, operations, and maintenance make Ameren qualified to develop projects in the PJM region.

2. Name and Address of the Entities Including Points of Contact

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St. Louis, MO 63103

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St. Louis, MO 63103

**Ameren Transmission Company of
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3. Entity Overview

Ameren, a Fortune 500 company that trades on the New York Stock Exchange under the symbol AEE, is among the nation's largest investor-owned electric and gas utilities with more than \$30 billion in assets. Ameren was created by the year-end 1997 merger of Union Electric Company (UE) and CIPSCO, Inc. Ameren grew in 2003 with the acquisition of CILCORP, Inc. and again in 2004 with the acquisition of Illinois Power Company (IP). ATX East, LLC (ATX East), Ameren Transmission Company LLC (ATX), and Ameren Transmission Company of Illinois (ATXI) were formed to develop and invest in electric transmission infrastructure. UE, Ameren Illinois Company, d/b/a Ameren Illinois (Ameren Illinois) (which resulted from the merger of Central Illinois Public Service Company, Central Illinois Light Company, and Illinois Power Company), and ATXI currently operate as transmission-owning members of MISO. Ameren owns 100% of the common stock of each company.

Ameren's utility operating subsidiaries include the largest electric utility in Missouri (i.e., UE) and the second largest in Illinois (i.e., Ameren Illinois). Together they provide energy services to 2.4 million electric and 0.9 million natural gas customers throughout a 64,000 square-mile territory. Ameren prides itself on operating safely and maintaining financial strength while providing reliable, reasonably priced energy in an environmentally responsible fashion. Ameren's FERC-Regulated Transmission Rate Base in Illinois as of the end of 2021 is \$4 Billion. In addition, Ameren has FERC-Regulated Transmission in Missouri that is not reported separately. Ameren is currently developing over \$3.5 billion of transmission projects through 2026.

Ameren operates two balancing authority areas, AMMO (which includes but is not limited to Ameren Missouri's customers), and AMIL (which includes but is not limited to Ameren Illinois' customers). Ameren currently owns and operates over 4,787 miles of 138 kV line, over 945 miles of 161 kV line, around 78 miles of 230 kV line and over 2,539 miles of 345 kV transmission line. Since 2015, Ameren has placed over 500 miles of new transmission lines in service on newly acquired right-of-way. In summary, Ameren's utility operating subsidiaries own and operate 8,348 miles of high voltage transmission lines and substations rated at 138kV and above with voltages ranging from 138kV to 345kV and approximately 10,200 megawatts of generating capacity from a mix of coal, nuclear, natural gas, oil, and renewable resources. Through its utility operating subsidiaries, Ameren has over 100 years of experience in siting, designing, constructing, operating, and maintaining transmission systems across Missouri, Illinois, and Iowa.

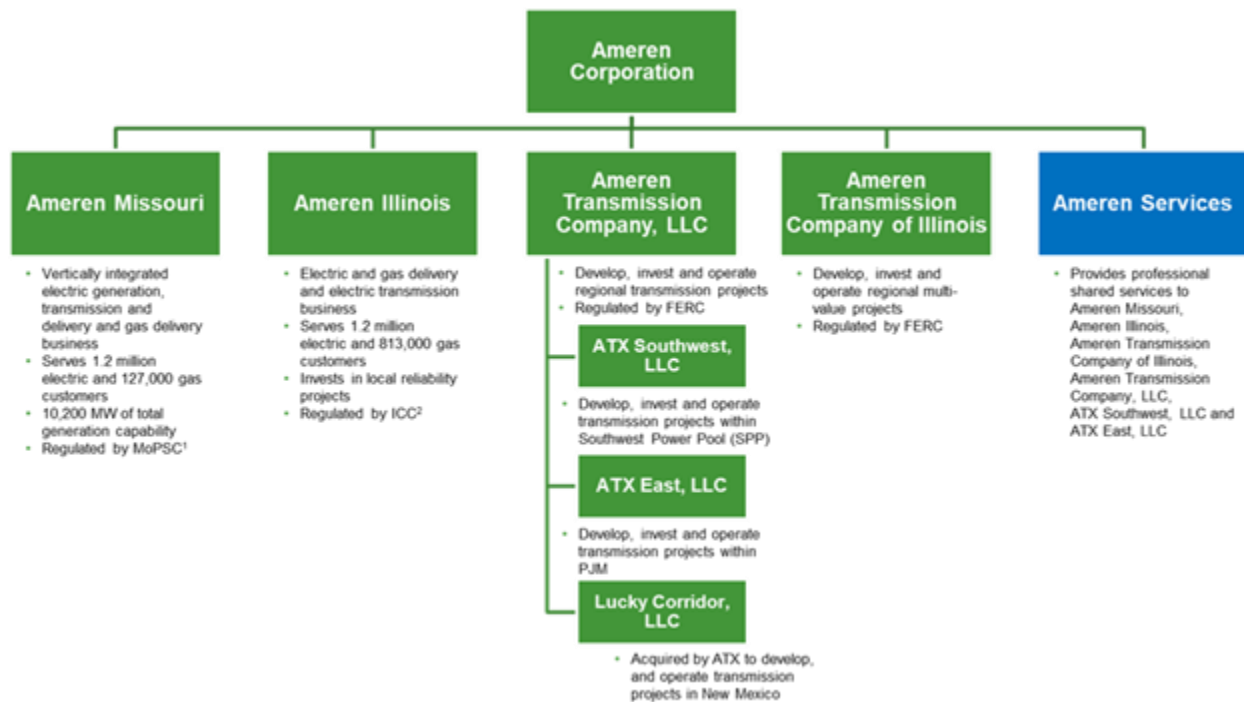
Two types of Ameren affiliate companies own transmission facilities: a vertically integrated utility (UE) and transmission owning utilities (Ameren Illinois and ATXI). Ameren Transmission Company LLC, (ATX) was formed specifically to develop, own, construct, acquire, operate, lease, and otherwise manage Ameren Corporation's strategic investment in FERC-regulated electric transmission infrastructure across the United States, in areas

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that are outside of Ameren Corporation's retail service territory. ATX currently has two operating subsidiaries:

- ATX Southwest, LLC was formed to develop, invest, and operate transmission projects within the Southwest Power Pool (SPP);
- ATX East, LLC was formed to develop, invest, and operate transmission projects within PJM;
- Lucky Corridor, LLC or "Lucky" was founded in 2009 as a woman-owned, FERC-regulated, transmission-only utility. In August of 2020, 100% of the membership interests of Lucky Corridor, LLC were acquired by ATX.

The figure below depicts the relationship of Ameren with the subsidiaries mentioned above:



Business and technical services related to transmission planning, development, construction, operations, and maintenance are provided to these utility operating subsidiaries through Ameren Services Company (AMS). AMS is an operating subsidiary that was formed by Ameren in 1999 and currently employs around 1,400 professionals. For over 23 years, AMS has provided shared services to support the development, operation and maintenance of electric generation, transmission and distribution infrastructure to Ameren Missouri, Ameren Illinois, and ATXI. AMS currently provides a full-time staff of around 400 professionals that work in transmission project management, engineering, construction management, safety, quality, commissioning, and operations and maintenance. In addition, AMS provides access to subject matter experts in other functional

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areas, including real estate, environmental and finance. Through the resources provided by AMS, Ameren and its' operating subsidiaries have demonstrated successful experience in constructing, operating and maintaining large transmission projects with a very high degree of complexity.

4. Technical and Engineering Qualifications

The Ameren family of companies (collectively Ameren) is qualified in the fields of planning, design, construction, operations, and maintenance of electric transmission facilities. Ameren's experience in operating electric transmission facilities date back to the early 1900s and includes expertise in the transmission areas of planning; design; line routing and siting; rights-of-way acquisition; safety; construction; project management; operations and maintenance of transmission, substation, and distribution facilities; vegetation management; system protection; relay and control; and NERC compliance. Ameren's team of engineers, project managers, skilled craftsmen, and business professionals have a long history of designing, financing, constructing, operating, and maintaining large-scale transmission facilities. Ameren's engineering and technical teams have developed the electric transmission system supporting Central and Eastern Missouri as well as Central and Southern Illinois.

The following list highlights Ameren's technical and engineering qualifications:

- Transmission planning
- Transmission operations
 - 24x7 control center
 - NERC certified operators
- Transmission and substations
- Construction and maintenance
- Emergency response and restoration
- Project management
- Real estate acquisition
- Spare equipment

5. Experience: Development, Construction, Maintenance, & Operations

Ameren has over 100 years of experience in developing, siting, designing, constructing, owning, and operating, alone or with partners, electric transmission infrastructure to improve reliability, provide access to renewable energy resources, enhance the efficiency of regional energy markets, help pave the way to a smarter grid, and bring significant jobs and other economic benefits to a region. In addition, Ameren has developed and maintained

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numerous transmission interconnections with 15 separate transmission operators. These transmission facilities ensure reliable and continuous flows of electricity for Ameren's customers as well as neighboring utilities and electrical cooperatives.

Ameren's in-house transmission project management, engineering and construction management teams save third party costs. Ameren's ability to originate project financing at very attractive rates, and, importantly, its ability to lend its frame agreements for transmission equipment procurement has allowed it to execute transmission projects that provide benefits to its customers at costs that are extremely competitive with any region of the U.S. In the five-year period between 2016 and 2020, Ameren Transmission executed a \$3.6 billion project portfolio within 1% of budget. For all projects, including those outside of our retail service territory, Ameren prefers to use local subcontractors and labor to the greatest extent possible.

Ameren has experience developing, constructing, maintaining, and operating transmission facilities of all common types including wood pole, lattice steel tower, steel pole, and concrete pole construction. In addition, Ameren operates and maintains 28 extra-long span major river transmission line crossings.

Ameren's internal resources are supplemented by a large array of contractors and consultants that also regularly perform these activities under special agreement with Ameren. At any time, multiple suppliers in each technical area are maintained under contract to allow for multiple responders as necessary.

Within the past five years, Ameren has completed the construction of three major transmission projects in Illinois and Missouri, on newly acquired right-of-way, that consist of over 500 miles of 345kV transmission lines, combined with the construction of numerous greenfield substations or extensive upgrades to existing substations. At a total cost of \$1.8 billion, these three projects: Illinois Rivers, Mark Twain, and Spoon River are now facilitating the delivery of renewable energy, improving reliability and providing economic and efficiency benefits to customers across the Midwest.

Illinois Rivers Project

This project involved the construction of a 345-kilovolt line that extends from a new substation near Palmyra, Missouri, across the Mississippi River to Quincy, Illinois and continues east across Illinois, connecting into the following substations: Meredosia, Austin, Pana, Faraday, and Kansas, then across the Indiana border to Sugar Creek where the line ties into a substation owned by Duke Energy. The project included two additional segments from Meredosia to Ipava and Sidney to Rising. The complexity and scale of this project, which was constructed under the budgeted cost of \$1.4 billion, are summarized below:

- Ten substations have been constructed or upgraded, including: five greenfield substations, four brownfield substations and a greenfield switching station

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- Construction of nine new line segments totaling 375 miles of 345 kV transmission line
- Construction of three river crossings:
 - One crossing of the Mississippi River; 1-1/2 miles long with a 2,600 ft. river span
 - Two Illinois River crossings; one over 3/4 mile and one 1-1/3 mile with a 3,800 ft. river span
- Acquired property rights for over 1,380 tracts of land from 1,145 landowners
 - Over 8,000 Acres of Easements
 - Over 1,000 Acres of clearing
- Constructed approximately 2,300 foundations and structures
 - Foundations 7' – 12' diameter by 30' – 60' in depth
 - Over 200,000 cubic yards of concrete
 - Tallest structure (by the river crossing) is 476 feet in height.
- Over 350 scheduled outages have been required to make all interconnections.

The Ameren Transmission Illinois Rivers team has completed construction of the largest transmission structures in our history. Four towers were required for this river crossing, two on the east side and two on the west side of the Illinois River. The Meredosia-Ipava river crossing towers reach a height of 486 feet, with a span of over 3700 feet between the large towers and 7300 feet between the dead-end towers. Most of this project was completed in 2019, with the final segment placed into service in December of 2020.

Spoon River Project

The Ameren Transmission Company of Illinois (ATXI), has completed the construction of the Spoon River Transmission Project, a 44-mile, 345 kV transmission line spanning between Galesburg and Peoria in Illinois. Ameren developed a strategic communication and outreach plan for the project in early 2014. The plan served as a foundation for the routing team to pursue an open stakeholder outreach effort, providing various opportunities for landowners, community representatives, agencies, and non-governmental organizations to be involved in the routing process. Ameren used various communication tools to inform stakeholders and solicit their feedback. Outreach events included focus group workshops, community representative forums, and open houses. These events were held during and in support of route selection. In addition, stakeholder feedback was welcomed and incorporated into the process throughout the entire route development process. Stakeholders had the opportunities to reach the project team through the project hotline and website, where they were able to review the most current project information.

Thanks to the cooperation and collaboration of landowners, communities, and contractors ATXI was able to deliver the project nine months ahead of schedule and under the budgeted cost of \$150 million.

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Mark Twain Project

This project consisted of a new, 63-mile, 345 kV transmission line running between Maywood Substation, near Palmyra, Missouri and the Zachary Substation that is located near Kirksville, MO. A new 33-mile, 345 kV transmission line was constructed north from the Zachary substation to the Iowa border. The project was executed under the budgeted cost of \$260 million.

To support the development of this project, Ameren negotiated a strategic partnership with a Northeast Missouri Electric Power Cooperative – a member of Associated Electric Cooperative - to successfully site the line and secure all required regulatory and county approvals necessary to construct the project. Under this partnership, approximately 59 miles of the Mark Twain transmission line was co-located with Northeast Power's existing 161 kV transmission line. To accomplish this, ATXI removed the current wooden H-frame transmission facilities and replaced them with new steel structures; the vast majority of which are of a steel monopole design. ATXI paid for the poles, insulators, and hardware.

In addition, ATXI co-located a second section of this transmission line with Ameren Missouri's existing distribution line running from Kirksville and the Iowa border.

This approach created a "win-win" solution. The line was constructed in a manner that minimized the need for new property rights. And landowners living along the existing Northeast Power and Ameren Missouri lines have benefitted from less burden on farmland due to the reduced number of poles, the elimination of guy wires and anchors and the value of new easement payments.

A partial list of other, recent projects is listed in the following table:

Stage	State	Project Name	Description
Completed	IL	Jarvis - 345/138 kV Substation	Constructed a new 345/138 kV Jarvis substation. Constructed a new 138 kV Kren switching station. Rerouted 345 kV and 138 kV lines into the new substations.
Completed	IL/MO	Gateway - 345/138 kV Substation	Constructed a new 345/138 kV Gateway substation. Rerouted 345 kV and 138 kV lines into the new substation.
Completed	IL/MO	Metro South Reliability Program (Meramec Energy Center Retirement)	Constructed a new 345/138 kV Beehive substation. Installed two (2) 138 kV +/-250 MVar Static Synchronous Compensator (STATCOMs).

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Stage	State	Project Name	Description
Completed	IL	Cahokia-Roxford - 345 kV Line Rebuild	Rebuilt 14 miles of 345 kV lattice towers as double circuit 345 kV with lattice towers and helical pile foundations.
Completed	IL/MO	Intelligrid Core High, Core Medium and Access High	Installed over 1250 miles of fiber optic cable on transmission lines to build a communications network and leverage high speed relaying at over 300 substations.
Completed	IL	McLean County Reliability Program	Constructed a new certificated 10 mile 138 kV with steel monopole structures.
Completed	IL	Decatur-Bloomington – 138 kV Line Rebuild	Rebuilt 43 miles of 138 kV lattice towers with steel monopole structures.
Completed	IL	Jerseyville-Northwest Austin 138 kV Line Rebuild	Rebuilt 55 miles of 138 kV wood H-frame with a combination of wood/steel H-frame and steel monopole structures.
Under Construction	IL	Southern Illinois Reliability Program	Rebuild 137 miles of 230 kV wood H-frame as 345 kV with steel H-frame and monopole structures.
Under Construction	IL	Albion South-Norris City North- 1 138 kV Line Rebuild	Rebuild 27 miles of 138 kV wood H-frame as double circuit 345/138 kV with steel monopole structures. Construct new 345 kV Albion South and Norris City North substations.

Ameren reports statistics for transmission lines having nominal voltages at or above 132kV in annual FERC Form 1 filings for its three major utilities: UE, Ameren Illinois Company (AIC), and Ameren Transmission Company of Illinois (ATXI). Ameren's most recent FERC Form 1 filings for 2021 are linked below.

Union Electric Company 2021 FERC Form 1	UE FERC FORM 1 Filing for 2021
Ameren Illinois Company 2021 FERC Form 1	AIC FERC FORM 1 Filing for 2021
Ameren Transmission Company of Illinois 2021 FERC Form 1	ATXI FERC FORM 1 Filing for 2021

6. Standardized Practices

Ameren is fully committed to compliance with standardized construction, maintenance, and operating practices. Standards set by North American Electric Reliability Corporation (NERC), SERC Reliability Corporation (SERC), Occupational Safety & Health Administration (OSHA), National Electrical Safety Code (NESC), Institute for Electrical and Electronics Engineers (IEEE), American National Standards Institute (ANSI), as well as other regulatory and standards setting organizations are the basic components in a culture of compliance at Ameren.

Ameren currently adheres to standardized operating processes for internal Ameren processes as well as those of other operating entities consistent with NERC Standards relating to coordinated operation. Ameren internal processes govern normal, emergency, and abnormal conditions. As to external processes, Ameren adheres to operating practices of PJM as a neighboring Balancing Authority (BA) and Transmission Operator (TOP), and with MISO, its Reliability Coordinator (RC). Additionally, Ameren adheres to good utility practice in the absence of formal operating practice processes.

Ameren has developed Standard Specifications, Design Criteria, and Guidelines that assure a consistent approach will be followed in the design and construction of transmission lines and substations. These construction specifications are issued with each job to the Ameren crew or the contractor crew. Each job is monitored throughout the construction phase by a construction supervisor to assure the construction meets Ameren's engineering standards and specifications. Prior to energizing, each project is inspected by engineering, maintenance, and forestry to assure that the project was constructed as per all Ameren Standards, Design Criteria, and Guidelines. Any deficiencies found either during construction or upon final inspection are added to a punch-list, subsequently corrected, and then verified as properly corrected prior to the transmission line or substation equipment being released to Ameren Transmission Operations for start-up. A written Commissioning (start-up) procedure is then followed to assure the equipment is energized in the proper sequence. During the commissioning, testing/measurements are performed as required and the equipment verified to be functioning properly prior to an official release to the operations group for service.

Examples of Design and Construction standards are as follows:

- 30 Transmission Line Design Specifications
- 23 Transmission Line Guidelines
- 14 Transmission Line Design Criteria
- 18 Transmission Line Construction Inspection Checklist
- 97 Substation Design Guides, Material/Equipment/Construction Specifications, and numerous standard drawings

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Ameren has developed procedures to support compliance with NERC reliability and planning standards. For example, Ameren's Transmission Interconnections group is responsible for compliance with the NERC Facility Rating Methodology standard (FAC-008-3), the NERC standard to determine and communicate System Operating Limits (FAC-014-2), and the NERC planning standards (TPL Standards 001 through 004). Documents have been created detailing the procedures followed to meet compliance for each of these standards.

Many of the criteria that are used to develop the Ameren system exceed NERC reliability standards from both a steady-state and a dynamics perspective. For example, areas where Ameren planning criteria is more robust than the NERC planning standards include:

- N-2 contingency events involving 345 kV circuits or higher (P6-1-1 and P7) will not allow for interruption of Firm Transmission Service or loss of Load. No system adjustments will be allowed expect for restoration of a ring bus by opening a line switch and closing the ring breakers.
- Limits to dropping load for some coincident (P3-P7) transmission outages
- Minimize the use of special protection systems to meet reliability standards
- Maintain margins between contingency flow and emergency ratings for incremental transfer capability (simultaneous and non-simultaneous)
- No allowance for high-speed reclosing of 345 kV circuits to maintain stability
- Stability to be maintained for double line to ground faults (2LG) with delayed clearing

7. Financials

Recent Ameren Annual Reports can be found at the following links (press Ctrl and Click link to open):

[Q2 - 2022 Form 10-Q](#)

[2021 Ameren Annual Report](#)

[2020 Ameren Annual Report](#)

[2019 Ameren Annual Report](#)

All recent Ameren SEC Filings can be found at this link (press Ctrl and Click link to open):

[Ameren SEC Filings](#)

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The following table presents the principal credit ratings for Ameren Corporation by Moody's and S&P as of June 30, 2022:

	Moody's	S&P
Ameren:		
Issuer (Moody's) / Corporate Credit (S&P)	Baa1	BBB+
Senior Unsecured Debt	Baa1	BBB
Commercial Paper	P-2	A-2

8. Consolidated Transmission Owners Agreement

Ameren Corp. or its designated affiliate will sign the Consolidated Transmission Owner's Agreement if they become a Designated Entity.

9. Address and Timely Remedy Failure of Facilities

Ameren is constantly prepared to address emergencies and equipment failures on the high voltage transmission system with a focus on the safe and expedient return of electric service. Ameren maintains an internal staff of labor resources, equipment, supervision, and engineering solely dedicated to construction, maintenance, and failure response to the 138kV and above transmission system. Ameren's control center and emergency response establishment are staffed 24x7, 365 days a year and ready to respond to system emergencies. Employees, contractors, consultants, equipment, and material are available for response at all times. Ameren's internal resources are supplemented by a large array of contractors and consultants that also regularly perform maintenance activities under special agreement with Ameren. At any time, multiple suppliers in each technical area are maintained under contract to allow for multiple responders as necessary.

Ameren maintains a large stock of material specifically reserved for failure response. This stock is sized based on in-service plant and can be scaled as needed for coverage of the system. In addition, Ameren maintains a map-based database of all transmission line assets to aid in ongoing maintenance and to provide fast response to unforeseen system events.

Ameren participates with industry associations such as Edison Electric Institute (EEI) and the Midwest Mutual Assistance Group (MMAG) that allow for resource and material sharing during large scale emergency events. Shared resources and material can be rapidly deployed in varying levels depending on the extent of the emergency. In addition, Ameren works with EEI and MMAG to seek continuous improvement and ensure the deployment of industry best-practices.

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Utilizing the previously mentioned resources, Ameren's emergency response teams identify damaged facilities, isolate the impacted facilities, perform damage assessments, and develop action plans to return the facilities to normal operation. Action plans focus on the permanent repair of parts and equipment at damaged facilities. However, temporary solutions may need to be employed on an interim basis to accelerate restoration.

10. Experience: Rights-of-Way

Ameren has a substantial full-time internal staff dedicated to researching, acquiring, and managing its real property assets, which include fee owned properties, transmission and distribution rights-of-way and other miscellaneous property rights. This group has personnel throughout the Ameren service areas with numerous acquisition efforts underway at all times. In the last several years Ameren has acquired hundreds of miles of transmission right of way in both Illinois and Missouri. The Real Estate Department works very closely with Ameren's Planning, Stakeholder Relations, Engineering, Environmental Services, Legal, Governmental Affairs and Communications departments to either verify existing rights-of-way or acquire new rights-of-way and real property interests necessary to advance pending projects, as well as sustain, modify, and improve existing facilities.

In addition, Ameren has experience exercising its eminent domain rights in Illinois and Missouri. The Ameren Real Estate Department has considerable experience working with the state regulatory commissions and the local court system to ensure all necessary property rights are acquired in a fair, equitable and timely manner to keep projects on schedule.