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Exhibit No.:	
Issue(s):	Overview of Project and Witness Testimony; Project Management; Scope of Work and Project Background; Parties Roles and Agreements; Cost; Operation and Maintenance; Construction Schedule; and *Tartan* Factors
Witness:	Eric Paulek
Type of Exhibit:	Direct Testimony
Sponsoring Party:	Ameren Transmission Company of Illinois
File No.:	EA-2025-0222
Date Testimony Prepared:	May 1, 2025

MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. EA-2025-0222

DIRECT TESTIMONY

OF

ERIC C. PAULEK

ON

BEHALF OF

AMEREN TRANSMISSION COMPANY OF ILLINOIS

St. Louis, Missouri
May 2025

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DIRECT TESTIMONY

OF

ERIC C. PAULEK

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I. INTRODUCTION

Q. Please state your name and business address.

A. My name is Eric C. Paulek. My business address is One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. What is your present position?

A. I work for Ameren Services Company ("Ameren Services") as a Project Manager in the Transmission Department. Ameren Services is a subsidiary of Ameren Corporation ("Ameren") and an affiliate of Ameren Transmission Company of Illinois ("ATXI"), the Applicant in this proceeding.

Q. What are your responsibilities as a Project Manager?

A. As a Project Manager, I am responsible for the planning, execution, completion, and operational integration of large-scale transmission construction projects. I am the project manager for the Grand Tower Crossing Project (the "Project") being proposed by ATXI.

Q. Please describe your educational background and employment experience.

A. I received a Bachelor of Science in Construction Management from Southern Illinois University Edwardsville in 2007. I then worked for a large design/build general contractor specializing in Department of Defense, Naval Facilities Engineering Systems Command and other federally funded projects from 2007 through 2017. I worked as a project engineer (assistant project manager), site safety and health officer, quality control manager and project manager. In 2017 I

moved to a smaller general contractor that focused on the St. Louis metro commercial construction market where I was a project manager completing several projects including multi-story wood framed residential buildings, light industrial and public schools. In 2023, I began working for Ameren Services as a transmission project manager.

In 2012 I earned the Board-Certified Safety Professionals, Safety Trained Supervisor certificate. During my career I have also earned certifications for United States Army Corps of Engineers as a Quality Control Manager and Occupational Safety and Health Administration 30-hour training.

Q. Have you previously testified before the Missouri Public Service Commission?

A. No.

II. PURPOSE OF TESTIMONY

Q. What is the Project for which ATXI is seeking a Certificate of Convenience and Necessity in this proceeding?

A. In collaboration with Citizens Electric Corporation ("Citizens") ATXI is proposing to construct an approximately 4-mile, 138 kilovolt, new transmission line ("Transmission Line") in Perry County, Missouri, to connect Citizen's existing Wittenberg substation in Perry County across the Mississippi River to a new substation near Ameren Illinois' existing Grand Tower substation in Jackson County, Illinois, which will be retired upon completion of the proposed project (the "Grand Tower Crossing Project" or "Project"). ATXI requests a CCN for the Missouri portion of this Project. The new line will improve energy reliability for the surrounding region and local communities. ATXI plans to complete the Project and place it in service by the end of 2028.

Q. What is the purpose of your direct testimony?

A. The purpose of my direct testimony is to introduce the other witnesses testifying on behalf of ATXI in this case. In addition, I will also describe the relationship between and responsibilities of ATXI and Citizens regarding the Project, provide an overview of the Project construction and schedule, as well as provide details about the estimated cost and financing of the Project. Finally, I will discuss the benefits of the Project and provide an overview of how the Project satisfies the criteria used by the Commission when determining whether to grant a CCN.

Q. Are you sponsoring schedules as part of your direct testimony?

A. Yes. I am sponsoring the following schedules:

- **Schedule ECP-01** – ATXI-Citizens Electric Joint Development Agreement, and
- **Schedule ECP-02** – ATXI-Citizens Electric Option Agreement.

III. OTHER WITNESSES

Q. Please provide an overview of the other witnesses and the subject matter of their testimony in this case.

A. Certainly. The table below lists the individuals other than myself who will be testifying on behalf of ATXI in this proceeding and the subject of their testimony:

Witness	Subject Matter
Justin Wenk	Mr. Wenk is a Consulting Engineer in the Transmission Line Design Department. Mr. Wenk will generally testify to the design of the Transmission Line.
Jennifer Spurlock	Ms. Spurlock is a Senior Real Estate Agent in the Real Estate Department. Ms. Spurlock will generally testify as to the real estate aspects of the Project, including ATXI's proposed easement acquisition strategies.
Dan Schmidt	Mr. Schmidt works for HDR, Inc. ("HDR"), a consulting firm ATXI hired to perform several tasks related to the Project. Mr. Schmidt will generally testify about how ATXI developed its proposed transmission line route and will sponsor the related route study.
Leah Dettmers	Ms. Dettmers is Manager of Stakeholder Relations and Training. Ms. Dettmers will testify regarding ATXI's

	public outreach efforts and its coordination with local government and affected regulatory agencies.

IV. OVERVIEW OF RELATIONSHIP BETWEEN ATXI AND CITIZENS

Q. What is ATXI?

A. ATXI is dedicated to electric transmission infrastructure investment. Today, ATXI owns and operates 560 miles of high voltage electric transmission lines and related facilities in Illinois and Missouri for the purpose of reliability and economically moving electricity across the grid for public consumption. It is also a transmission-owning member of the Midcontinent Independent System Operator, Inc. ("MISO"), a member-based, not-for-profit Regional Transmission Organization ("RTO") that manages the electric transmission grid within a region that includes portions of Missouri. As a transmission-only utility, ATXI generally pursues and develops transmission opportunities that create value for end-use customers and the region in general where those projects might not best fit the project development portfolios of Ameren's traditional incumbent utilities like Union Electric Company, d/b/a Ameren Missouri ("Ameren Missouri"), or Ameren Illinois Company, d/b/a Ameren Illinois ("Ameren Illinois"). ATXI has a successful track record in developing multi-value Projects and has also expanded its project portfolio to include opportunities like the one ATXI has recently developed in collaboration with Wabash Valley Electric and Citizens Electric in File No. EA-2021-0087 to construct a 15-mile, 138-kV line and new substation in Perry and Cape Girardeau counties in December 2023. ATXI is a subsidiary of Ameren and an affiliate of Ameren Missouri and Ameren Illinois.

Q. How did ATXI come to propose this Project with Citizens?

A. Citizens is a local distribution not-for-profit corporation operating as an electric cooperative in the Project area. Citizens serves approximately 28,000 members in Southeast

Missouri in the counties of Ste. Genevieve, Perry, St. Francois, and Cape Girardeau. In early 2022, Wabash Valley identified a need to meet a North American Electric Reliability Corporation ("NERC") transmission planning criteria on its transmission system. Wabash Valley collaborated with ATXI to develop a solution that will provide a second transmission source to serve Citizens Electric's retail customers to address the planning need and bring future value to Ameren Missouri customers. The entities submitted the proposed Grand Tower – Wittenberg – Seminary project to MISO in September 2022 for review and MISO approved the project in December 2023. Citizens have since bought the transmission assets in the area from Wabash Valley and now remain the only utility partnering with ATXI on the Project.

Q. What roles do each of the parties have in the Project?

A. Citizens will manage, design and construct an additional position on their existing ring bus at the Wittenberg Substation for the Grand Tower Crossing 138 kV line to connect. It is the intention of the parties that ATXI and Ameren Illinois will each be responsible for management, design and construction of their respective portions of the new line from the Wittenberg Substation to a new substation near Grand Tower, Illinois.

Q. Has the agreement between the parties been memorialized?

A. Citizens Electric, ATXI and Ameren Illinois executed a Joint Development Agreement ("JDA") (attached as **Schedule ECP-01**) and an Option to Purchase Agreement (attached as **Schedule ECP-02**) for the Grand Tower River Crossing Project on September 30, 2024. The JDA and Option agreements are currently being amended to include some changes that have become necessary as the Project developed.

Q. Please provide an overview of the existing JDA.

A. Citizens Electric and ATXI have agreed to jointly develop the Project and to individually manage, design and construct their respective portion of the Project. Citizens Electric will be responsible for upgrades at the Citizens-owned Seminary and Wittenberg Substations as well as the new 138-kV line between Seminary and Wittenberg. ATXI will be responsible for the new 138-kV line from the Wittenberg Substation to a new substation near the existing Grand Tower Substation.

Citizens Electric and ATXI have also executed an option agreement where Citizens Electric will have the exclusive right and option to purchase the 138-kV conductors, 138-kV optical ground wire, 138-kV insulators and hardware, and any 138-kV single circuit structures that are part of the Project. This option may be exercised by Citizens Electric only after ATXI (or affiliate of ATXI) has received all required regulatory approvals for the sale of assets and for the construction and usage of a future 345-kV transmission line project of ATXI (or an ATXI affiliate) utilizing the structures and 345-kV conductors and insulators associated with the Grand Tower to Wittenberg Transmission Line (the Future Project) and the Future Project has been placed into service and functional control has been transferred to MISO (collectively the "Trigger Event").

The construction of the new substation near the existing Grand Tower Substation is not part of the JDA or Option Agreement between Citizens Electric and ATXI.

Citizens and ATXI are currently working through an amendment to revise the language of the JDA to reflect changes that became necessary as the Project developed.

Q. You have testified that an amendment to the JDA and Option Agreement is pending execution. What changes to the agreements are the parties anticipating?

A. The amendment to the JDA will add Ameren Illinois as a party to the agreement. Ameren Illinois will be responsible for the portion of the Project from the Illinois/Missouri border

to the new substation near Grand Tower, Illinois. ATXI will design, construct, operate and pay for the portion of the Project in Missouri. Ameren Illinois will design, construct, operate and pay for the portion of the Project in Illinois.

Q. Why was the Project attractive from ATXI's standpoint?

A. In the event of an outage to the two existing transmission supply lines, Ameren Missouri customers in southeast Missouri would lose access to approximately 150 megawatts of energy with limited restoration (switching) capability due to lack of redundant feeds. The Project will provide electric system reliability to Ameren Missouri customers in the southeast area of Missouri by providing a redundant 138-kV transmission feed. The Project will also improve transmission capacity for Southeast Missouri while providing regional and local growth opportunities due to increased access to energy.

Q. Please describe those benefits in further detail.

A. The North American Electric Reliability Corporation identified multiple potential NERC TPL-001-5 low voltage scenarios along the path from southeast Missouri to Grand Tower, Illinois. A second 138-kV path from the Grand Tower, Illinois-area to Seminary Substation would alleviate these issues and increase reliability across the Mississippi River. The Project will provide critical support to the Cape Girardeau and St. Francois County, Missouri, areas in the event of an outage of the two existing supplies in a non-urban area with limited restoration (switching) capability. The new supply also provides geographic diversity which would mitigate against exposure to longer term outages and load loss caused by line maintenance, severe weather or other natural disasters.

Q. Why is ATXI and not Ameren Missouri proposing to develop the Project?

A. ATXI focuses on developing and operating regional electric transmission projects in Illinois and Missouri. Regarding this particular project, ATXI has experience and expertise in developing regional projects with third parties, including projects which involve river crossings.

Q. Would Citizens have needed to pursue a CCN from the Commission to develop the Project on its own?

A. Although I am not an attorney, my understanding is that the answer is "no." I understand that the Commission does not have jurisdiction over not-for-profit corporations acting as an electric cooperative like Citizens.

V. PROJECT OVERVIEW AND PROJECT CONSTRUCTION

Q. You have described the Project in general terms. Can you provide more specific details about the Project?

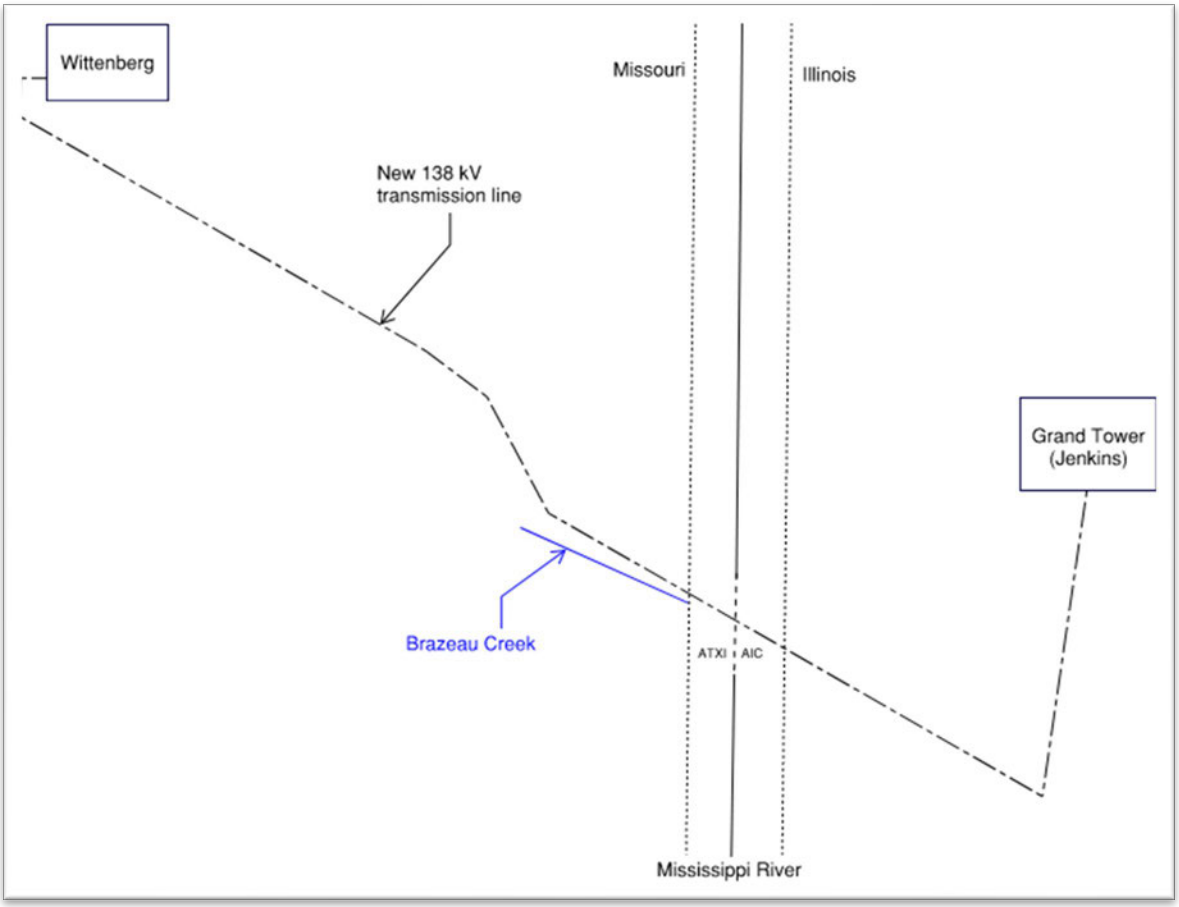
A. Yes. In Missouri, the Project involves construction of a greenfield 138-kV transmission line section from the west side of the Mississippi River eastward to the Wittenberg Substation with an estimated length of 1.4 miles. The line will be composed of 138-kV conductor and associated hardware capable of 2000-amp summer emergency rating, double circuit light and medium angle suspension structures designed for one 138-kV circuit and a future 345-kV circuit, and single circuit 138-kV heavy angle suspension structures. The structures inside the Wittenberg Substation and the 345-kV conductor required for the future connection are not part of ATXI's scope of work.

The river crossing portion of the Project involves construction of 345-kV double circuit Mississippi River crossing with one circuit to be operated at 138-kV; both circuits will be designed and insulated for 345-kV operation with conductor and hardware capable of a 3,000-amp summer emergency rating. The estimated length of the river crossing is 1.1 circuit miles. As I have

previously indicated, ATXI will construct and own the Missouri portion of the Project, which includes that portion of the line on the Mississippi River that is within the Missouri state boundary.

The Illinois portion of the Project involves construction of a greenfield 138-kV transmission line from a substation near the Grand Tower Substation to the east side of the Mississippi River crossing with an estimated length of 1.0 mile. Conductor and associated hardware will be capable of a 2,000-amp summer emergency rating.

A depiction of the proposed route for the transmission line appears in the diagram below.

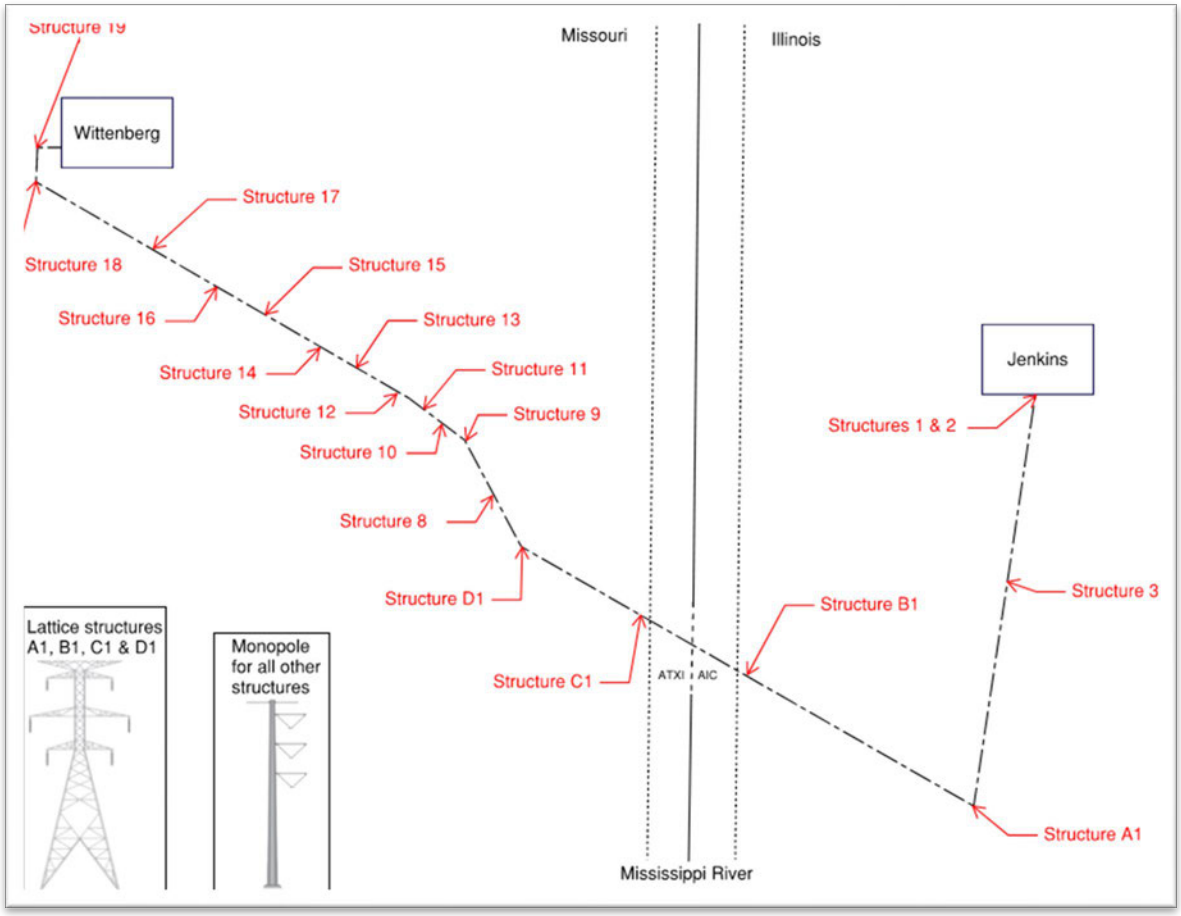


The proposed route of The Project, noted on the one line above, will exit the Wittenberg Substation from the southwest corner, turn south after a short distance, then turn southeast paralleling the existing Grand Tower to Wittenberg transmission line. The last structure in

Missouri will be just north of Brazeau Creek (identified above) as it empties into the Mississippi River in Perry County, Missouri. The new line will cross the Mississippi River into Grand Tower in Jackson County, Il.

Q. Can you describe specific details about the physical components of the Project?

A. Yes. The image below depicts the anticipated structures for the planned route.



Regarding the Missouri portion, structures C1 and B1, the structures which support the line's crossing into Missouri across the Mississippi River, will be galvanized steel lattice or tubular structures approximately 470 feet tall. Structures A1 and D1 will also be galvanized steel lattice or tubular structures but will be approximately 170 feet tall. The remaining structures will be

galvanized steel monopole structures ranging from 80 feet to 140 feet tall. The line will be strung as if it were a 345-kV circuit from structure D1 to structure A1 for future use when needed. ATXI will complete construction of the 345-kV circuit across the river now so as to avoid greater cost in the future when it is anticipated the line will be needed.

The footings and support structures of the remainder of the new line will be designed and constructed to carry the loads of 345-kV wire. If the need to upgrade the remainder of the line from 138-kV to 345-kV arises in the future, only the wire will need to be restrung, which is far less impactful to landowners than reconstructing the entire line.

All other structures will be galvanized steel monopole structures, ranging from 80 feet to 140 feet tall and strung as a 138-kV circuit. The poles will be placed on concrete foundations ranging from 8 to 12 feet in diameter. The structures will be placed to minimize impact to the landowners and have a maximum span of 900 feet. The minimum clearance from the ground to the lowest point of the conductor will be 25 feet.

The exact design may vary once the exact route is determined, and geotechnical investigation is complete. The direct testimony of ATXI witness Justin Wenk contains more information about the design of the transmission line.

Q. Can you describe how ATXI determined the routing of the proposed line?

A. Yes. Routing of the line was determined by geographical, cultural and landowner considerations in both Missouri and Illinois. The direct testimony of ATXI witnesses, Mr. Dan Schmidt and Mr. Justin Wenk provide more information regarding the selection of the route and other routing details.

Q. Will new easements be required for the Project?

A. Yes. ATXI has identified 20 possibly affected parcels and 12 different landowners who have the potential to be affected by the Project route. The exact number will be determined when ATXI finalizes siting of the structures after working with the affected landowners. ATXI witness Ms. Jennifer Spurlock provides more information regarding affected landowners and the necessary easements for the Project.

Q. What community outreach efforts did ATXI engage in when developing the proposal for the Project and identifying the route for the Transmission Line?

A. The ATXI team, supported by consultants from HDR, Inc., conducted two public open houses in Perryville and Altenberg, Missouri, on January 16, 2025, and February 25, 2025, respectively. The open houses were advertised in the newspapers that are distributed in The Project area. Invitations to the open house were also mailed to all landowners within the study area of the Project and an interactive website, Ameren.com/GrandTowerCrossing.com, was created for anyone to review information about the Project and leave comments or questions. The study area was identified by ATXI and HDR teams to include any area in Illinois or Missouri that the Project could reasonably be routed between the Wittenberg Substation and Grand Tower, Illinois. Jennifer Spurlock and I presented information about the Project at Jackson-Union County Regional Port District and the Jackson County Board in Illinois in response to invitations from those groups. The testimony of company witnesses, Ms. Leah Dettmers and Mr. Dan Schmidt provides much more detail on the public outreach efforts ATXI has engaged in during the route development process.

Q. Where is ATXI in the preconstruction process?

A. The ATXI engineers have identified the most likely route for the Project and have created a preliminary design. This design includes assumptions for structure locations, structure sizes and foundations. The design will be revised once geotechnical exploration is complete and

the final route is determined. The engineers have created a list of anticipated materials needed for the Project and have collected estimates from material suppliers. Historical cost data from similar projects has also been used to create estimates for materials and construction labor. When the design is near completion the material estimates will be updated by the various suppliers, and the Project will be released to construction contractors to provide bids.

Q. How does ATXI intend to construct the Project?

A. The Project will be constructed using the design/bid/build project delivery process. In the design/bid/build process, Ameren Services directs each phase of the work activities. In this traditional approach to project delivery, the owner (here, ATXI) arranges for the completion of the design and Project specifications. In the bid phase, the owner then coordinates the competitive bidding of the materials and any labor necessary for the Project based on the design. ATXI will evaluate the proposals and award the scope to contractors. Finally, the build phase requires the owner to coordinate the receipt of the materials and manage construction, including the activities of any construction contractors.

Q. Why does ATXI intend to use contractors in the construction of the Project?

A. Using contractors is the most efficient and cost-effective means to construct projects such as this one. It would be cost-prohibitive and inefficient to permanently employ the internal staff necessary to support the peak manpower requirements associated with all transmission line projects. Therefore, as it has routinely been done in the past, Ameren Services, on behalf of ATXI, will utilize contractors to construct the Project. It is ATXI's intention to use all union contractors.

Q. How will ATXI select contractors for the Project?

A. Ameren Services, on behalf of ATXI, will use a formal sourcing process to secure bids for the labor necessary to construct the Project. Generally, the sourcing process is comprised of: (i) formation of a contract development team to identify and write the scope of work to be completed, identification of qualified contractors for bidding, and the contractor selection criteria necessary; (ii) evaluation and acceptance of the statements of qualifications and bids received from those interested in the work as scoped; and (iii) negotiation of the terms and conditions most favorable to ATXI. This rigorous sourcing process assures that Ameren Services secures the best bid for efficient and effective construction.

Q. Please explain how ATXI will ensure adequate and efficient construction of the Project.

A. Ameren Services, on behalf of ATXI, has a strong project management emphasis and experience. Ameren Services has documented corporate project oversight policies and procedures that govern all phases of transmission line projects, including this Project. These policies and procedures are consistent with the Project Management Institute's Project Management Book of Knowledge, which is an American National Standards Institute (ANSI") standard. Ameren Services' policies describe key steps in ensuring adequate and efficient construction, such as engineering design calculation checking, constructability reviews, project risk registers with defined risk mitigation plans, and fully integrated logic-driven schedules. Further, monthly status reports with key project health metrics are reviewed with management. The monthly status reports identify issues affecting project execution, potential high impact risks, and cost and schedule performance.

Q. Please explain how ATXI will supervise construction of the Project.

A. Ameren Services' Transmission Construction Services group will have primary responsibility for job site supervision during construction of the Project. In addition to this supervision, employees engaged in design engineering, project controls, and safety will also oversee construction. Finally, construction contractors will be continuously managed through field inspections, testing (as required), and construction review.

Q. Will ATXI ensure that the Project is designed and constructed in accordance with all applicable laws and regulations?

A. Yes. The Ameren Services personnel involved in the design and construction of the Project are regularly involved in the design and construction of transmission lines in Missouri. As such, they are aware of the laws and regulations applicable to such design and construction. When changes are made to these laws and regulations, Ameren Services employees involved in regulatory issues advise those affected by the changes to implement any modifications in process or procedure necessary to stay compliant. Through its experience and the process to address changes, Ameren Services and ATXI will ensure that they comply with all applicable federal and state regulations and orders of the Commission, including the National Electrical Safety Code ("NESC").

Q. What is ATXI's capability to efficiently manage and supervise construction of the Project?

A. ATXI utilizes the services provided by Ameren Services and, thus, is capable of efficiently managing and supervising construction of the Project. Ameren Services and its personnel, on behalf of its transmission-owning affiliates, have successfully built many transmission line projects. Further, the Project will be designed and constructed in accordance

with all applicable federal, state and local regulations and the NESC. As explained, Ameren Services, on behalf of ATXI, will manage and supervise construction of the Project.

VI. PROJECT SCHEDULE

Q. What is the planned in-service date for the Project

A. The planned in-service date for the Grand Tower Crossing Project is December 31, 2028.

Q. By when does AXI request that the Commission approve its application for a CCN?

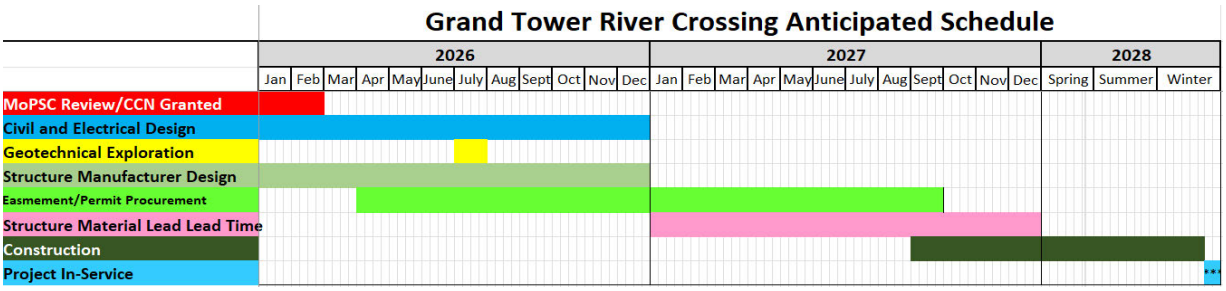
A. ATXI requests that the Commission approve its application for a CCN by March 1, 2026.

Q. Why is that date significant?

A. To meet its in-service date, it is necessary that the CCN be granted by March 1, 2026, so that right-of-way acquisition efforts can begin in earnest the following month. ATXI needs to complete geotechnical borings, which require right of entry, by the end of July 2026 to maintain the Project schedule. In addition, the schedule calls for construction to commence in the Fall of 2027 for river crossing tower foundations for the in-service date to be met. Based on our experience with transmission projects like this one, if right-of-way acquisition does not begin in earnest by March 2026, there will not be sufficient right-of-way acquired to commence construction in a timely fashion. Therefore, ATXI's construction schedule may not be met, jeopardizing its ability to meet the required in-service date.

Q. Please provide an overview of the anticipated schedule for the Project?

A. The following diagram depicts the anticipated schedule for the Project:



as depicted above, ATXI anticipates a ruling on the CCN Application by no later than March 1, 2026. The ATXI engineers will continue designing the Project through 2025 and 2026. ATXI will complete cultural impact studies and native species studies in Missouri as soon as right of access from landowners has been granted. The cultural impact studies will ensure that no historically significant locations or artifacts are impacted by the construction of the Project and the native species studies will determine if any Federally or State of Missouri protected species will be impacted by construction of the Project. Once the route is cleared of vegetation geotechnical borings will be collected and reviewed by the engineers. This will allow the engineers to complete their foundation and structure designs. Once design by the ATXI engineers is complete, the structure suppliers can complete their design and begin fabrication of the various components of the structures. Completion of the design by the ATXI engineers will also allow other ATXI team members to submit the Project to the various Federal and State entities that will require permits or approvals for construction of the Project.

Once all permits and approvals are secured, construction will start by placing the river crossing structural foundations in the Fall of 2027 and Spring of 2028. The Mississippi River water levels will be critical to the ability of the contractors to work on the 16 foundations that support the 4 lattice or tubular towers (4 per structure). Erection of the river crossing towers will begin as soon as the foundations are complete. The monopole structure foundations will be placed in the Spring and Summer of 2028. The balance of the transmission line construction consists of

monopole structure erection, conductor stringing and Optical Ground Wire stringing. The expected construction finish date is November of 2028. Testing and inspections of the Project will be complete by December of 2028. The Project will be fully operational and placed in-service by the end of 2028.

As the weather allows, and after stormwater pollution prevention measures are installed, ATXI will begin installing the monopole foundations between the river and the Wittenberg Substation. Additional construction crews will be erecting the lattice/tubular towers as the monopole foundations are being installed. Once all monopole foundations are complete, ATXI will begin erecting the monoploe structures. The next step in construction involves stringing the line across the new structures, from substation to substation. The last step will be to demobilize all of the construction equipment and restore the properties as close to their original state as possible. Once vegetation has taken hold, the stormwater pollution prevention measures will be removed.

Q. Can you describe what remains to be done to finalize the proposed route for the Project?

A. ATXI believes it has selected a route that is considerate of the feedback it has received from all stakeholders and is most beneficial to ATXI in constructability and cost. After approval of the route by the Commission, the last step in the routing process will be for the ATXI Engineers and HDR consultants to work with affected landowners to microsite the structures and secure the necessary easements. The testimony of ATXI witness Mr. Dan Schmidt provides more specific information about the routing of the Project. The testimony of ATXI witness Ms. Jennifer Spurlock provides more specific information about the process for micro-siting of the Project for final placement of the transmission structures.

Q. What regulatory approvals are required for the Project?

A. Ameren Services is working with several state and federal agencies, including the Missouri Department of Conservation, Missouri and Illinois Department of Natural Resources, Illinois Historic Preservation Division, Missouri State Parks, Illinois Environmental Protection Agency, Illinois Department of Transportation, U.S. Fish and Wildlife Service and the U.S. Army Corps of Engineers.

Q. Are there any regulatory approvals which have already been obtained, are in the process of being obtained, or are required for this Project?

A. Given that ATXI does not have permission from the Commission to construct the Project, it has not obtained any approvals yet for this Project and has not started the formal permitting acquisition process. Depending on the final approved route and the results of property or environmental surveys, the following permits will or may be required for the Project:

Regulation	Regulatory Agency/Regulator	Permit/Authorization/Submittal
Section 404 of Clean Water Act (CWA) Section 10 of Rivers and Harbors Act	US Army Corps of Engineers (USACE) – St. Louis Regulatory District	Nationwide Permit (NWP) 57 (Electric Utility Line and Telecommunications Activities)
Endangered Species Act (ESA)	US Fish and Wildlife Service (USFWS) - Missouri Ecological Services Field Office Illinois-Iowa Ecological Services Field Office	Section 7 Consultation
Federal Aviation Regulations 75 FR 42296 - "Safe, Efficient Use and Preservation of the Navigable Airspace"	Federal Aviation Administration (FAA) - Central Region Office	Submittal - Form 7460-1 "Notice of Proposed Construction or Alteration"

Regulation	Regulatory Agency/Regulator	Permit/Authorization/Submittal
Construction Stormwater (Land Disturbance Permit) General Stormwater NPDES Permit for Construction Activities	Missouri Department of Natural resources (MoDNR) – Water Protection Program Illinois Environmental Protection Agency (IEPA)	Stormwater Runoff from Construction Activities General Permit
CWA Section 401 - Water Quality Certification (WQC)	MoDNR – Water Protection Program IEPA Water Quality Certification Program	Section 401 Water Quality Certification
Floodplain Development Permit	Missouri State Emergency Management Agency – Floodplain Management IDNR Office of Water Resource Management	Floodplain Fill Permit
Section 106 of the National Historic Preservation Act (NHPA)	Missouri State Historic Preservation Office (SHPO) Illinois State Historic Preservation Office (SHPO)	Concurrence
Missouri Threatened and Endangered Species Consultation	Missouri Department of Conservation (MDC)	Natural Resource Review for State-Listed Species
Illinois Endangered Species Protection Act	Illinois Department of Natural Resources (IDNR)	Natural Resource Review for State-Listed Species
County Floodplain Development	Local County Zoning Administrator	Floodplain Development Permit
Railway Permits	Railroad Company being crossed or encroached upon	Crossing permit or Longitudinal Permit
Highway Crossing Permits	Missouri Department of Transportation	Interstate, State highway crossing permit
Road Permits/County Assent	State Highways, County roads, City jurisdictions	Crossing Permit or other permit necessary if putting infrastructure upon or over County or State Road/Highway
Utility crossing Permits	Pipeline or other utility company	Crossing permit

Q. Does ATXI anticipate any environmental impacts related to the Project? If so, what steps is ATXI taking to mitigate those impacts?

A. ATXI has not yet performed site-specific environmental field surveys in Missouri, and therefore a complete list of environmental impacts is unavailable at this time. ATXI does anticipate construction will require a National Pollutant Discharge Elimination System ("NPDES") permit from the Missouri Department of Natural Resources ("MoDNR").

ATXI has consulted with the relevant government agencies and endeavored to obtain environmental information for the Project areas. Additionally, several criteria regarding environmental impact and sensitivities were extensively considered in the route selection process.

ATXI will begin the formal environmental field survey process upon receipt of a CCN from the Missouri Public Service Commission ("MoPSC") (when the route is certain) and obtain landowner permission to access to the properties along the approved route to ascertain a full and extensive environmental impact. Surveys that ATXI plans to complete include delineation of waters of the US, archaeological survey, sensitive species habitat assessment, and a bat presence/absence survey. Upon completing environmental field surveys, and prior to construction, ATXI will obtain the necessary environmental permits for the Project's facilities from all relevant agencies and implement any necessary mitigation.

ATXI has incorporated numerous best management practices into our routing, siting process, and construction efforts, to avoid and minimize impacts to the extent practicable. These include desktop review and modification of specific pole locations to avoid identified species habitat or other sensitive areas, utilizing existing stream crossings for access roads where possible, clearing vegetation during the winter bat hibernation period, and inclusion of avian safe design measures on our wire and structures.

Q. Will ATXI obtain all necessary regulatory approvals required for the Project?

A. Yes.

Q. What pre-construction activity is required?

A. As AXTI obtains easement agreements, it will begin environmental studies and surveys, conduct geotechnical explorations, assess and install construction access, and begin vegetation clearing. Engineering will continue finalizing detailed designs of the Transmission Line and begin material procurements for construction.

Q. While the work is not part of ATXI's request for a CCN from the Commission, the Project will include work in Illinois. Describe generally what work will be required on the Illinois side and the anticipated timeline for that work in relation to the planned in-service date.

A. Construction of the section of the new line in Illinois will closely follow the schedule described previously for the Missouri work. Construction will start on the river crossing foundations in the Fall of 2027. Erection of the river crossing towers will begin as soon as the foundations are complete. The monopole foundations will be placed in the Spring and Summer of 2028. The balance of the transmission line construction will start in the Summer and Fall of 2028. The expected construction finish date is November of 2028. Testing and inspections of the Project will be complete by December of 2028. The Project will be fully operational and placed in-service by the end of 2028.

VII. PROJECT COST AND FINANCING

Q. What is the estimated cost of the Project for the portion in Missouri?

A. The estimated cost of the Project for which ATXI is responsible in Missouri is comprised of a base cost of [redacted] with a range of up to [redacted] as a contingency cost.

Q. How was the base Project cost determined?

A. The cost estimate for the project is a compilation of efforts by several groups of professionals that use cost history analysis from past projects, inflation adjustments and estimates of costs for unknown factors. Project Engineers start by creating a list of materials that will be needed for the project. A cost analyst then applies known and estimated cost to each item. Meanwhile, the Real Estate team gathers fair market value information for the necessary property easements. The construction labor cost is estimated by using historical data from the most recent similar projects. This cost remains unknown until the scope is defined well enough to present to the contractors for bidding. I, as the Project Manager, then compile the costs above as well as anticipated management labor costs, design cost, costs for the various permits, safety and quality control costs and a myriad of additional costs for materials and labor. Once this subtotal is determined, the project team reviews the known and unknow costs and applies an appropriate percentage of contingency to cover unknow risks that may impact the project budget.

Q. You provided a range of costs for the Project. Why?

A. The range of costs for the Project is due to the amount of unknown conditions that will be encountered as the Project develops through design, engineering and construction. At this early stage, the two most significant risks for construction and, therefore, the impact on the cost of the Project are the unknown soil conditions where the structure foundations will be placed and the Mississippi River flood stage during construction. To acknowledge these risks, a budget contingency has been added to the estimated Project cost which is the contingency cost I identify above.

Q. Are there any costs associated with the Project that you have not discussed?

A. Yes. In addition to the costs associated with the Project's Illinois portion, which is the responsibility of Ameren Illinois, there are additional costs necessary for the Project to interconnect with Citizen's Wittenberg substation, for which Citizens will be responsible.

Q. What is your understanding of how ATXI will finance the Project?

A. ATXI plans to finance the acquisition and initial cash flow requirements with either available cash on hand or short-term borrowings, which would be available under Ameren's Utility Money Pool arrangement. I understand that ATXI will replace any short-term borrowings with a permanent source of capital that includes a balanced blend of long-term debt and common equity.

Q. Is it your understanding that this is consistent with how ATXI typically finances its capital needs?

A. Yes. I understand that ATXI's capital structure is composed of short-term debt, long-term debt, and common equity. I further understand that ATXI specifically and continuously manages the balance of debt and equity in its capital structure to minimize its overall cost of capital and, at the same time, maintain finance strength and stability.

Q. Will the estimated costs for the Project impact ATXI's access to the capital needed to finance the Project?

A. No. As I understand it, the estimated cost of the Project is quite modest compared to ATXI's historical capital expenditures. For example, ATXI's projected capital expenditures from 2025 through 2029 are $2.725 billion. Also, the incremental amount of debt and interest to support this Project is small in comparison to ATXI's total borrowing capacity and related interest expense. It is my understanding that with or without the Project, ATXI will continue to have access to long-term sources of capital including external debt and equity. Thus, the Project will not affect ATXI's ability to finance or fund its on-going needs.

Q. Will any individual customer or customer group directly reimburse ATXI for the cost of the Project?

A. No.

Q. How will ATXI recover the cost of the Project?

A. The ATXI Project facilities will be included in ATXI's transmission revenue requirement calculated under the MISO tariff. Since these ATXI facilities are in the Ameren Missouri Transmission Pricing Zone ("AMMO pricing zone"), the revenue requirement for the Project will be collected from all transmission customers in the AMMO Pricing Zone, based on relative load share.

Q. How will Ameren Missouri pay for its share of the Project's revenue requirement?

A. Ameren Missouri will pay for its share of the project revenue requirement just like the zonal revenue requirement for all other transmission owners in the AMMO pricing zone, which includes ATXI, Missouri Joint Municipal Electric Utility Commission d/b/a Missouri Electric Commission ("MEC"), and Citizens Electric. This is accomplished through the Joint Pricing Zone Revenue Allocation Agreement.

VIII. PROJECT OPERATION AND RESTORATION

Q. Please provide an overview of ATXI's plan for operating the Project.

A. Ameren subsidiaries currently own and operate over 8,300 miles of transmission lines across multiple states. ATXI will obtain operations and maintenance services from Ameren Services once the Project is complete. Ameren Services is providing these same services to ATXI for other transmission lines owned by ATXI. Ameren Services maintains a primary control center that will conduct all operational switching and coordination with adjacent and interconnected

systems. Once the Project is placed into service, it will be continuously monitored through SCADA by the control center. The control center is staffed around the clock by system operators that are certified by NERC. The system operators are required to maintain their certification through a combination of computer-based training and live system simulation drills. Ameren Services also maintains backup control centers in the unlikely event that the primary control center must be evacuated to minimize any potential disruption to operating the transmission system.

Q. Please provide an overview of ATXI's plan for maintaining the Project.

A. After the Transmission Line is placed into service, various Ameren Services transmission maintenance and management groups (line and vegetation) will follow a routine cycle of patrols and coordinate scheduled maintenance. These patrols will be a combination of aerial patrols and foot patrols as defined by internal maintenance standards. Any maintenance issues identified during the patrols will be given priority as provided by internal maintenance standards and a remediation action will be scheduled based on that priority. Ameren Services will then identify the labor resources necessary to address the remediation. In general, Ameren Services has a complete and robust line maintenance program that is defined by and subject to numerous internal standards, including those governing the routine patrol of assets and providing expectations around the repair of any issues that are identified.

Q. Please provide an overview of ATXI's plans for restoration of safe and adequate service after significant, unplanned/forced outages of the Project.

A. Ameren Services has documented processes governing responses to unplanned outages. Ameren Services will apply these procedures to the Transmission Line by clearly defining roles and responsibilities across its experienced group of subject matter experts.

Ameren Services operators will monitor the Transmission Line 24/7. If an unplanned outage occurs, subject matter experts will be assigned to review the outage data, utilize fault location information to determine the material and labor resources necessary for make-safe activities and to assess the damage, and determine material and labor resources necessary for the safest and most efficient restoration. Ameren Services maintains a close relationship with multiple contract partners and tracks their staffing levels on Ameren projects on a continual basis. This information is used to determine the best resources to respond to the situation. Ameren Services also has access to an experienced staff of internal linemen that can respond to storm damage when necessary.

Ameren Services and other Ameren operating subsidiaries maintain an extensive stock of spare parts for both planned an unplanned transmission needs. In the unlikely event that a single or multiple steel poles would fail; the immediate restoration of the line would be addressed using wooden structure material to quickly return the line to service. A planned project would then be executed to replace the equivalent steel structures as needed.

IX. *TARTAN* FACTORS

Q. Are you familiar with the *Tartan* factors that the Commission uses in its evaluation of CCN applications?

A. It is my understanding that, in its review of CCN applications, the Commission has traditionally applied the following five criteria, known as the *Tartan* factors: (1) there must be a need for the service the applicant proposes to provide; (2) the applicant's proposal must be economically feasible; (3) the applicant must have the financial ability to provide the service; (4) the applicant must be qualified to provide the proposed service; and (5) the proposed service must be in the public interest.

Q. Please explain why there is a need for the Project.

A. While the impetus for construction of the line was the identification by Wabash Valley of multiple potential NERC TPL-001-5 low voltage scenarios along the path from St. Francois to Grand Tower, the Project also meets the needs of Ameren Missouri customers. First and foremost, the cost of any such project was going to be allocated to the AMMO Pricing Zone regardless of Ameren Missouri or ATXI's involvement. Having an Ameren entity involved in the ATXI-Citizens development allowed us to collaborate in the design and execution of the development in a manner that would "unlock" additional current and future benefits for ATXI and Ameren Missouri.

In addition, ATXI intends to design the line in a manner that could, in the future, provide additional strategic value to the region. The line (meaning conductor) that will be energized as a part of the initial Project will be a single 138-kV line. However, ATXI intends to design and install structures that are capable of being outfitted with an additional transmission circuit at a voltage of up to 345 kV in the future. If that additional circuit becomes necessary, Citizens will have the option to acquire the original 138-kV circuit (meaning conductor) from ATXI and ATXI would collaborate with Ameren Missouri with respect to the installation, ownership and operation of the 345-kV facilities. The future use and benefits case would likely determine whether ATXI or Ameren Missouri would ultimately own the future facilities.

Finally, a second 138-kV path from Grand Tower to Seminary would alleviate these issues and increase reliability across the Rivermines-Grand Tower pathway. As I previously identified, construction of the line will increase the reliability and resiliency of electric transmission service for Ameren Missouri customers by providing flexibility in the re-routing of energy should existing transmission lines suffer loss.

Q. Please explain how the Project is economically feasible.

A. The cost of the Project will be shared between all Ameren Missouri and Citizens customers, as well as other wholesale customers connected to the Ameren transmission system in Missouri. MISO will allocate and collect the costs. The customer impact will be minimal and the benefits, in terms of regional reliability and strategic value, will outweigh the costs.

Q. Does ATXI have the financial ability to build and operate the Project?

A. Yes. As I have discussed above, ATXI will finance the Project with either available cash on hand or short-term borrowings, which would be available under Ameren's Money Pool Arrangement. ATXI will replace any short-term borrowings with a permanent source of capital that includes a balanced blend of long-term debt and common equity.

Q. Is ATXI qualified to build and operate the Project?

A. Yes. Since ATXI was first recognized by the Commission as a public utility in Missouri in File No. EA-2015-0145, ATXI has had a successful track record in developing several Multi-Value Projects and in developing other projects in conjunction with utilities in the state, such as the recent Limestone Ridge project with Citizens Electric and Wabash Valley Power Alliance in File No. EA-2021-0087.

Q. Please explain why the Project is in the public interest.

A. The Project will increase transmission capacity that ensures energy reliability and resiliency for Ameren Missouri customers by providing flexibility to re-route power during outages while crews safely make repairs. The additional transmission capacity will also support economic development opportunities to Ameren Missouri customers. Finally, by constructing a 345-kV line across the Mississippi River as part of the Project, ATXI is saving future costs to

Ameren Missouri customers related to the anticipated future addition of the line when future demands require it.

Q. Is ATXI seeking approval in this case to install the second 345-kV circuit in the future?

A. No. ATXI or Ameren Missouri would pursue supplemental authority from the Commission in the future to install and energize the 345-kV circuit. However, ATXI does want to be transparent with the Commission about its intent to design, construct and seek real estate rights for double-circuit structures in conjunction with this Project. ATXI witness Jennifer Spurlock will discuss more specifically what this means from a real estate acquisition perspective.

Q. Why is the 345-kV design important to Ameren from a strategic development perspective?

A. This Project could become a strategic piece of a larger regional expansion, which has been under consideration for years, and which would benefit the Ameren system and the southeastern Missouri region as a whole. The real estate rights procured as part of the Project will increase the potential of future 345-kV projects in the Ameren Missouri territory and other electric providers in the region.

Q. Does this conclude your direct testimony?

A. Yes, it does.