ATXI Exhibit 7.0

ILLINOIS COMMERCE COMMISSION

DOCKET No. 12-_____

DIRECT TESTIMONY

OF

JERRY A. MURBARGER

Submitted On Behalf

Of

AMEREN TRANSMISSION COMPANY OF ILLINOIS

NOVEMBER, 2012

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I. INTRODUCTION AND WITNESS QUALIFICATIONS

Q. Please state your name, business address and present position.

A. My name is Jerry A. Murbarger. My business address is 370 S. Main Street, Decatur, Illinois, 62523-1479. I am currently a Transmission Design Specialist in the Transmission Lines Design group for Ameren Services Company ("Ameren Services"). Ameren Services, on behalf of Ameren Transmission Company of Illinois ("ATXI"), will be designing approximately 375 miles of new 345 kilovolt ("kV") transmission line, multiple breaker stations and/or substation enhancements and six (6) new 345/138 kV transformers, as described herein.

Q. Please summarize your educational background and professional experience.

A. See my Statement of Qualifications attached as an Appendix to this testimony.

Q. What are your duties and responsibilities in your present position?

A. My duties include designing transmission line projects for ATXI and other Ameren Corporation affiliates such as Ameren Illinois Company d/b/a Ameren Illinois ("Ameren Illinois"). These duties include assisting with the selection of line routes that balance cost effectiveness and environmental impacts, ensuring line design meets National Electrical Safety

Code ("NESC") requirements, preparing baseline project cost estimates and assisting with management of project costs. While the scope of the projects vary, each one includes the following elements: the design of the transmission line structures that are to be used on the transmission line, selection of transmission hardware, development of technical drawings, materials procurement, scheduling of outages, coordination of field surveying work and cooperation with other departments within Ameren Services (real estate, vegetation management, environmental services and other engineering groups), resolution of issues during construction, performance of the final inspection and turning the line over to operations to place in service.

II. PURPOSE AND SCOPE

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to provide information regarding the design of the proposed Transmission Line.

Q. In addition to your testimony, are you sponsoring any other exhibits?

A. Yes. In addition to ATXI Exhibit 7.0, I am sponsoring ATXI Exhibits 7.1 through 7.4.

Q. Please explain ATXI Exhibits 7.1 and 7.2.

A. ATXI Exhibit 7.1 is a drawing depicting the typical tangent structure on the Transmission Line. ATXI Exhibit 7.2 is a schematic drawing of a typical dual circuit tower structure which will be used along an approximately three-mile section of the Sidney to Rising portion, if the final route approved in this proceeding is common to the route for the Bondville 138 kV line approved in Docket No. 12-0080.

Q. Please explain ATXI Exhibit 7.3.

A. ATXI Exhibit 7.3 contains a summary of engineering data required by Section 8-406.1(a) of the Public Utilities Act.

Q. Please explain ATXI Exhibit 7.4.

A. ATXI Exhibit 7.4 contains a summary of the baseline cost estimates for the Project.

III. DESIGN CONSIDERATIONS

Q. Please provide a technical description of the proposed Transmission Line and related facilities.

A. The proposed line will be a 345 kV, three-phase, multi-grounded, 60 Hertz ("Hz"), overhead transmission line. The Primary Route of the Transmission Line (consisting of the following portions: Mississippi River to Quincy, Quincy to Meredosia, Meredosia to Ipava, Meredosia to Pawnee, Pawnee to Pana, Pana to Mt. Zion, Mt. Zion to Kansas, Kansas to State Line (Indiana border), and Sidney to Rising) is approximately 375 miles in length. ATXI will construct the proposed Transmission Line using single shaft self-supported steel poles on concrete foundations. Pole heights will range from 80 feet to 140 feet above ground. The typical span length will be approximately 700 feet with the maximum span being approximately 1000 feet. There may be occasions where a 1400' span may occur. If so, there would be a special design for that area. After determining the exact location of each pole, the pole type and size will be selected along with a plan view showing the structure types and location. The conductor will be bundled 954 Cardinal 54/7 ACSS. One shield wire will be 7#7 AW or ½" 7 Strand Extra High Strength ("EHS") and the second shield wire will be a fiber optic ground wire ("OPGW"). The OPGW is required for substation relaying purposes. The structure types will

consist of tangents, running angles and deadends. The insulators will be either porcelain or glass bells or polymer. Concrete foundations will be used to eliminate guy wires and anchors. Concrete foundations will typically be six to 10 feet in diameter and project out of the ground approximately three feet. The line will be designed in accordance with the NESC and 83 Ill. Admin. § 305. The minimum vertical ground line clearance of 25 feet will be maintained per the NESC. Engineering data related to the design and construction of the Transmission Line is provided in ATXI Exhibit 7.3.

Q. Will there be any above-ground fixtures located on agricultural land other than support structures and conductor?

A. No.

Q. Will ATXI place any guy wires and anchors along right-of-way lines or land division lines?

A. No. All proposed angle structures will be self-supporting steel poles with concrete foundations, therefore requiring no guy wires.

Q. Did ATXI evaluate the conceptual design impacts of the proposed Transmission Lines?

A. Yes. As discussed by ATXI witness, Ms. Maureen A. Borkowski, ATXI retained a consultant, Environmental Resources Management ("ERM"), to help develop route siting criteria, prepare a route siting analysis, and work with various stakeholders and the public to obtain their input into the process. The ATXI project team worked with ERM in the route selection process, which addressed land use impacts, environmental, cultural and historical

resource concerns, and other routing criteria including the engineering and constructability of the Transmission Line. The results of the route selection process are discussed in more detail in Ms. Donnell Murphy's direct testimony (ATXI Exhibit 4.0).

IV. BASE COST DEVELOPMENT

Q. What is the base cost of the proposed Transmission Line?

A. The total estimated base cost, based on initial engineering estimates but not including any substation costs, using 2012 dollars, for the Primary Route is approximately $720 million. The cost estimates, based on the same unit costs as the Primary Route (in 2012 dollars) for construction of the Alternate Route is approximately $785 million dollars. As discussed below, the base cost estimates include rights-of-way and environmental costs, and are inputs used to determine the overall expected Project cost identified in the Petition and discussed by ATXI witness, Mr. Jeffrey V. Hackman.

Q. Have you developed an exhibit that shows the base costs of the Project?

A. Yes. The base costs are reflected in ATXI Exhibit 7.4. The costs are broken down by portion of the route, for both the Primary and Alternate Routes.

Q. Please explain how ATXI calculated the baseline cost of the proposed Transmission Line contained in ATXI Exhibit 7.4.

A. The baseline cost for each component was developed based on standard design specifications and costs. For example, estimates were determined for length of wire, and number and type of poles needed for each route. Rights-of-Way and environmental costs are also included in the cost estimates contained in ATXI Exhibit 7.4. The base cost data was used as an

input into the model used to develop the expected cost of the Project. Mr. Hackman discusses the overall expected Project costs in his direct testimony, ATXI Exhibit 3.0.

V. RIGHT OF WAY WIDTH

Q. ATXI witness Mr. Rick D. Trelz indicates that, where new rights-of-way will be acquired, a 150-foot easement will be required to construct the Transmission Line. Please describe why a 150-foot easement is required.

A. The 150 foot wide easement is required to provide adequate clearance from the 345 kV transmission line conductors to the edge of the right-of-way for operational and maintenance purposes.

Q. Is the 150-foot easement the minimum easement required?

A. Yes, for long span construction. The 150-foot easement will provide adequate NESC clearances from the conductor to a building on the edge of the right-of-way (NESC Rule 234C.1). ATXI has filed a document titled Transmission Vegetation Management Plan document FAC-003-2, in response to NERC mandates, specifying all the vegetation clearance requirements.

Q. Will ATXI require construction easements to construct the Transmission Line?

A. During the installation of the wires, the construction contractor may have a need to set up equipment off the 150-foot wide right-of-way. Depending on where this might occur, there may be a need to obtain construction easements. If such easements are needed, they would be up to and including 150 feet in width.

Q. Does ATXI anticipate installing its transmission support structures along the centerline of the easement?

A. Typically, yes. There may be times when the centerline is not used, for example, a landowner preference that can be accommodated. These decisions are made after route selection.

Q. When the electric line parallels a road right-of-way, but is to be placed on private land, how far from the edge of the right-of-way will the centerline of the support structures be placed?

A. The centerline of the tangent structures will typically be placed as close as practical to the edge of the road right-of-way. This is typical practice in the industry for 345 kV roadside construction. There will be exceptions when the highway alignment shifts or when existing utilities or facilities interfere with such placement. The attached ATXI Exhibit 7.1 depicts the typical structure configuration that is currently expected to be used on the Project.

Q. When the electric line parallels other electric transmission lines, will ATXI adjust the easement widths it acquires?

A. No, ATXI will still require 150-foot easement widths. However, where the Transmission Line parallels other transmission facilities, ATXI will seek to acquire an overlapping easement so as to reduce the total easement width impacting a given property.

Q. Will the support structures also support any other lines or facilities either initially or in the foreseeable future?

A. Possibly. ATXI is proposing to design a section of the Sidney Rising portion of the Transmission Line for joint utilization, with Ameren Illinois, of double circuit structures, in recognition of the Illinois Commerce Commission's ("Commission") order in Docket No. 12-0080. In Docket No. 12-0080, the Commission directed Ameren Illinois to use dual circuit structures for the three-mile segment directly south of the Bondville Route 10 Substation, "should the planned Sidney to Rising 345 kV transmission line share the same route" as the Bondville to SW Campus 138 kV transmission line approved in that proceeding. Order, Docket 12-0080 (Aug. 15, 2012), p. 23. The attached ATXI Exhibit 7.2 depicts the typical structure configuration that is currently expected to be used on this section of the Project if the Commission approves the Primary Route.

VI. CONCLUSION

Q. Does this conclude your direct testimony?

A. Yes, it does.

APPENDIX

STATEMENT OF QUALIFICATIONS
JERRY A. MURBARGER

I received an Associate of Applied Science degree from Lincoln Trail College in 1976. I worked for different companies until early 1989 in the metal fabrication industry designing material-handling equipment and high pressure American Society of Mechanical Engineers "ASME" Code Section VIII Pressure Vessels. In early 1989, I joined Soyland Power Cooperative ("Soyland") as a draftsman/surveyor and advanced to engineering technician designing substations and transmission lines. As an engineering technician at Soyland, I was responsible for the design of several 69 kV and 138 kV transmission lines. I was involved in all aspects of the projects including establishing the line route, surveying the route, designing the line, ordering material, writing construction specifications, construction inspection and closing all project documents. I started with Illinois Power Company ("Illinois Power") now AIC, in October, 2000. Since then, I have been involved with maintenance and/or design of transmission lines and sub-transmission lines. AIC considers transmission lines as those above 100,000 volts. The majority of my time has been in the maintenance area, where I have gained a solid background in the design and construction techniques of transmission lines. I am familiar with AIC's transmission line design standards and design considerations including things such as: types of structures, hardware requirements, types of conductors, span limitations, structure location considerations, construction issues, safety and clearance requirements, and real estate considerations. Some of my responsibilities in the transmission maintenance group were to collect the semi-annual Aerial Patrol reports and Groundline Inspection Reports on AIC's transmission lines. I typically participated in most of the aerial inspections in order to assess the

condition of existing structures and their hardware. These inspection reports typically involved summarizing any damage to structures such as broken or damaged cross arms, x-braces, v-braces, hardware, insulators, dampers, guy wires, as well as pole top deterioration. I was responsible for collecting all the reports and compiling the data. I was in charge of the wood pole Groundline Inspection program for the transmission structures. The purpose of this program is to ensure the integrity and reliability of our transmission structures. Although I did some inspections, the majority of the inspections were performed by independent companies who submitted their inspection reports to me. I identified which poles could be repaired and which ones needed to be replaced. If a pole had to be replaced, I would utilize AIC's standards to determine the required pole type and class to make the repairs. I determined the required repairs utilizing AIC standards, prioritized the repairs, prepare a material list, made a construction cost estimate for the repairs, and then submitted this information for budget approval. Once the budget was approved, I had the drawings updated, ordered the material and put a construction package together. I would obtain bids from several contractors, evaluate the bids and get approval to proceed with construction. It was my responsibility to follow the contractors' work through construction. Working through this process has given me a solid background in the design and construction requirements of transmission lines.

In addition to my daily responsibilities, I was part of AIC's emergency response team, which was established to assist with storm-related or emergency projects. Familiarity with AIC's transmission line design and construction standards was required to effectively perform this task.

With my wide range of transmission line maintenance experience, I transferred to the Transmission Lines Design Group of Ameren Services following Ameren's acquisition of

Illinois Power in 2004. Ameren Services is a subsidiary of Ameren Corporation ("Ameren") and provides technical, advisory and financial services to other Ameren subsidiaries including AIC and ATXI. Since then, I have been working on design of new transmission line projects including cost estimates, route selection, and modifications to existing facilities. On this project, I will be a member of the transmission line design team for the proposed Transmission Line.