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Case No.: EA-2015-0146
Date Testimony Prepared: May 29, 2015

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. EA-2015-0146

DIRECT TESTIMONY

OF

CHRISTOPHER J. WOOD

ON

BEHALF OF

AMEREN TRANSMISSION COMPANY OF ILLINOIS

St. Louis, Missouri
May 2015

ATXY Exhibit No. 15
Date 1/25/16 Reporter JL
File No. EA-2015-0146

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DIRECT TESTIMONY

OF

CHRISTOPHER J. WOOD

CASE NO. EA-2015-0146

I. INTRODUCTION AND WITNESS QUALIFICATIONS

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

A. My name is Christopher J. Wood. I am employed by Burns & McDonnell Engineering Company, Inc. ("Burns & McDonnell") in the Environmental Studies and Permitting Global Practice as a Project Manager and Department Manager. My business address is P.O. Box 419173, Kansas City, Missouri 64141, and my office headquarters is located at 9400 Ward Parkway in Kansas City, Missouri 64114.

Q. On whose behalf are you testifying?

A. I am testifying on behalf of Ameren Transmission Company of Illinois ("ATXI").

Q. Please summarize your professional experience and educational background.

A. I graduated from Kansas University in 1993 with a Bachelor of General Studies Degree in Environmental Studies. I joined Burns & McDonnell in February 1994 in the Planning and Environmental Analysis Division, now the Environmental Studies & Permitting Global Practice. I have over 21 years of experience on a variety of projects and in various environmental roles. I have extensive experience in routing and environmental studies for new linear facility projects, particularly electrical transmission lines. I have participated in and served as Project Manager for a number of electrical transmission line routing studies throughout the country ranging from only a few miles in length to over 180 miles and for voltages ranging from 69

kilovolts ("kV") to 500-kV, and I have served as Project Manager on over 25 linear facility projects. I also manage our Environmental Studies Department, which is comprised of a staff of environmental scientists, planners, engineers, biologists, and Geographic Information System ("GIS") specialists.

Q. Have you previously testified before any regulatory commission?

A. Yes, I have previously provided written and/or oral testimony before the North Carolina Utilities Commission ("NCUC") as part of Applications for a Certificate of Environmental Compatibility and Necessity for the Trenton Road 230-kV Transmission Line Tap Project in Wake County, North Carolina, and the Asheboro to DEC Pleasant Garden 230-kV Transmission Line Project in Guilford and Randolph Counties, North Carolina. Both of these projects have been approved by the NCUC. I have also previously provided written and oral testimony before the Arkansas Public Service Commission ("APSC") as part of an Application for a Certificate of Public Convenience and Necessity for the 115-kV Transmission Line and Associated Facilities in Saline County, Arkansas. This project has been approved by the APSC.

II. PURPOSE AND SCOPE

Q. What is the purpose of your testimony?

A. ATXI is proposing to construct what it calls the Mark Twain Transmission Project ("Project") in northeast Missouri. ATXI retained Burns & McDonnell to conduct route selection studies and assist with public involvement activities for the proposed Project. I am the Burns & McDonnell Project Manager for the route selection study. In this role, I participated in and was responsible for directing and coordinating the efforts of our staff and coordinating with ATXI's project staff. I coordinated field visits to the study area, reviewed data on the potential impacts associated with the Project, participated in public open houses and community representative

forums, and was responsible for the routing analysis. The purpose of my testimony is to provide the Commission with an understanding of the route selection process and of the basis for selection of the final routes.

Q. Are you sponsoring any schedules in support of your direct testimony?

A. Yes. I am sponsoring **Schedules CJW-01** and **CJW-02,** both of which contain materials related to the stakeholder process undertaken by ATXI as part of the selection of a route for the Project.

III. OBJECTIVE OF ROUTE SELECTION STUDIES

Q. What was the objective of the route selection studies?

A. The study objective was to identify a route for the proposed 345-kV transmission line to connect three points – the Maywood Switching Station near Palmyra, which is a part of the ATXI Illinois Rivers Project, the proposed Zachary Substation to be located near Kirksville, and a point at the Iowa state line from where the Project would extend into Iowa – that avoided or minimized the adverse impacts on natural and social resources and provided a cost-effective and technically-feasible alignment. In addition, the Project team identified a 2.2 mile-route for a new 161-kV transmission line that would connect the proposed Zachary Substation to be built by ATXI to the existing Adair Substation, which is owned by Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri"). I address the development of the final route for this 2.2-mile section of 161-kV transmission line later in my testimony.

IV. OVERVIEW OF 345-kV ROUTE SELECTION PROCESS

Q. Please provide a brief overview of the route selection process for the 345-kV line.

A. The route selection process was a multi-step process that included a four-phased approach: study area phase, preliminary route network phase, reduced route network phase, and final route selection phase. Each phase is briefly described below and in more detail later in my testimony.

The study area phase involved defining Project endpoints, identifying the study area, collecting study area data, identifying constraints, opportunities, and routing criteria, and soliciting agency feedback.

The preliminary route network phase involved identifying routing principles, identifying the initial route network, conducting a field review of the alternative routes, analyzing and comparing route alternatives, incorporating input received from elected officials and agencies, and finalizing the preliminary route network. Following the identification of the preliminary route network, a first round of community representative forum and public open house meetings were held.

The reduced route network phase involved incorporating input received at public open houses and community representative forum meetings, evaluating and comparing the preliminary route alternatives, and identifying a reduced route network. Following the identification of the reduced route network, a final round of public open house and community representative meetings were held.

The final route network phase involved incorporating input received at public open house and community representative forum meetings, participating in a final route selection meeting with the routing team, and selecting a final route.

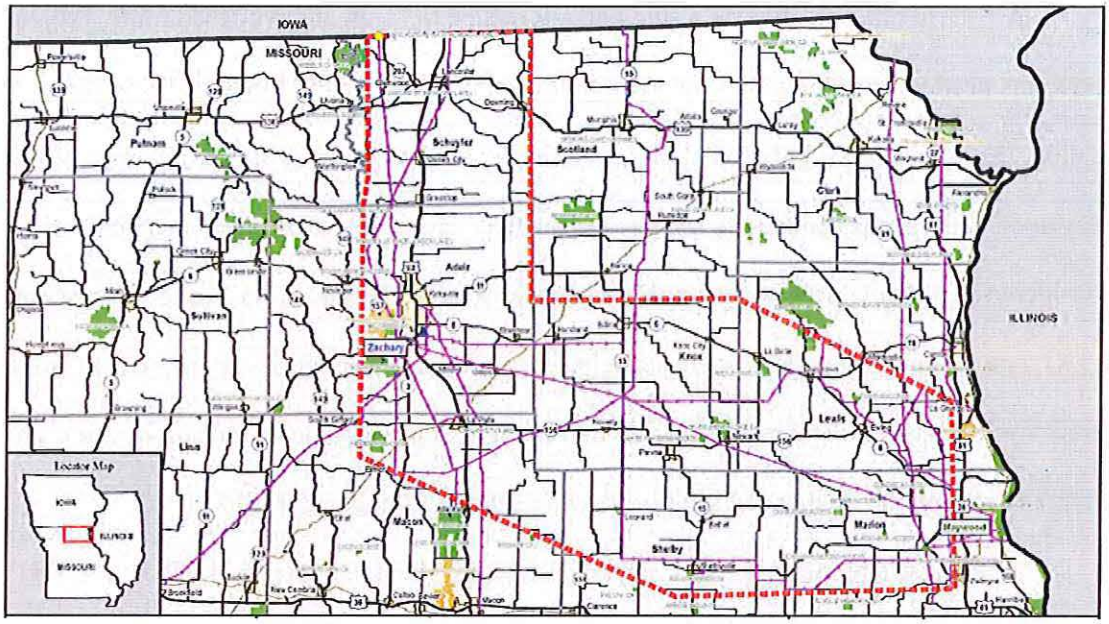
V. STUDY AREA AND 345-kV ROUTE DEVELOPMENT

Q. Explain the study area phase of the Project.

A. In order to develop a study area in which to locate the proposed route, Project endpoints need to be defined. For the Project, the endpoints were the Maywood Switching Station, the proposed Zachary Substation, and the connection point at the Iowa border. While the Maywood and Zachary endpoints had been identified, several locations were originally considered as potential termination points along the Iowa state line. After further discussion with ATXI, one termination point was chosen adjacent to Ameren Missouri's Appanoose to Adair 161-kV transmission line where it crosses into Iowa in Schuyler County, Missouri. All route alternatives from the Zachary Substation would need to terminate at this location.

With these endpoints in mind, the Project team, which consisted of staff from ATXI's engineering, real estate, environmental, construction, public involvement, vegetation management, and project management groups, along with staff from Burns & McDonnell's routing, public involvement, and permitting groups, established the study area boundary. Defining the study area boundary is important so that the investigation can become focused early in the process. The study area was designed to provide a substantial area within which numerous potential route alternatives could be developed and considered, without being so large as to overwhelm the study with alternative options.

The study area for the Project encompassed approximately 1.25 million acres and included several municipalities, conservation areas, Thousand Hills State Park, conservation easements, Kirksville Regional Airport, several rivers, and existing linear infrastructure, such as existing electric transmission and distribution lines, highways, and local roads. The study area for the Project is depicted in the figure below:



Q. Once the study area was developed, what did you do next?

A. Project data pertaining to the study area was collected and organized within a geographic information system ("GIS") database. This data included recent aerial photography, U.S. Geological Survey ("USGS") topographic maps, wetlands, parcel data, roads, and municipal boundaries. Collection of this data was necessary in order to identify constraints and opportunities within the study area for the development of the initial alternative route network.

A constraint is any area that generally can be delineated on a map and that can affect the location of the new facility. Constraints represent obstacles or impediments to the routing of a transmission line. Examples of constraints for route selection included dense residential areas, forested wetlands areas, and crossings of other existing transmission lines. Several of the routing constraints identified within the study area included state-owned lands, airports, center pivot irrigation, and conservation easements.

Routing opportunities are locations the proposed routes could be co-located, if appropriate, along existing linear infrastructure, such as railroads, roads, existing transmission

lines, etc., to potentially minimize the impacts of the new transmission line to the social and natural environments. Routing opportunities in the study area included the siting of transmission line route segments parallel to highways, pipelines, existing power lines, or other linear features (co-location opportunities). Co-locating transmission lines parallel to these linear features may reduce impacts to routing. Co-locating transmission lines with other existing transmission lines could minimize social and environmental impacts but could create undesirable reliability risks.

The Project team assembled this data and identified the opportunities and constraints for the study area.

Q. What is the next step once study area data is collected and the opportunities and constraints are identified?

A. The Project team identified the routing criteria, which consisted of engineering, social and environmental/land use criteria to be considered for the evaluation of the route networks. In addition, letters were mailed to federal and state agencies to solicit their feedback on the Project. This completed the first phase of the route selection process for the Project.

Q. The second phase of the route selection process involved the establishment of a preliminary route network. Did you establish a preliminary route network for the Project?

A. Yes. Following the study area phase, the Project team identified an initial, extensive, and very broad network of geographically distinct route options that could connect the Project endpoints. These routes were comprised of numerous shorter and interconnecting segments. Once these alternative route segments were identified, the Project team reviewed these conceptual routes in detail during numerous Project meetings and added, modified, or eliminated several of the Project route segments. These changes were based on a review of the routing

principles, selected evaluation criteria, and compliance with ATXI standards of feasibility and constructability.

Q. What were the routing principles used to identify the route alternatives?

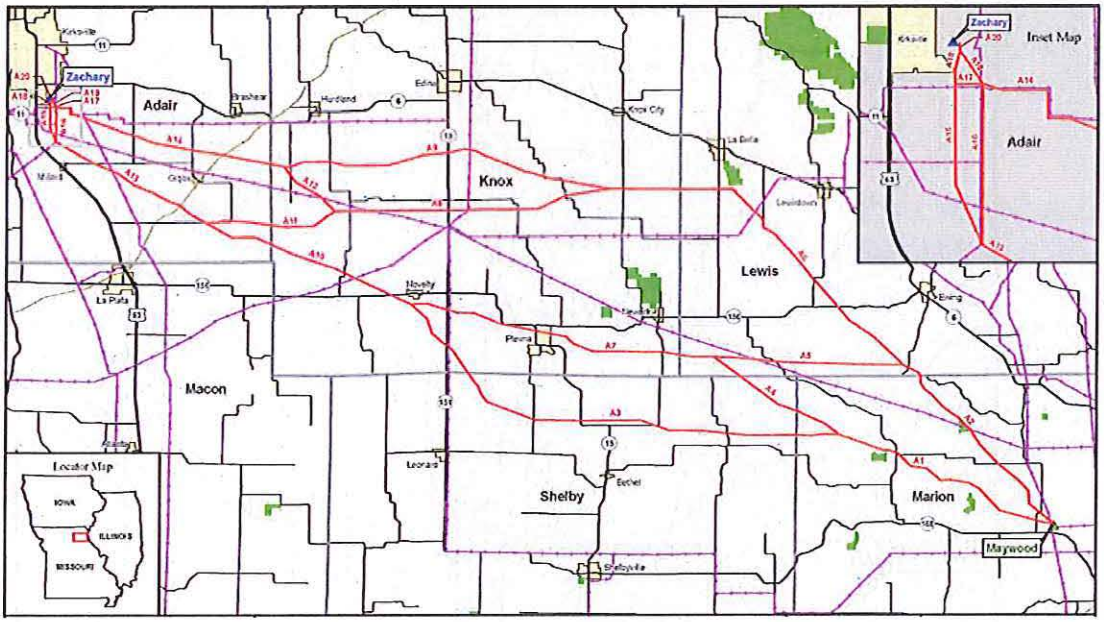
A. Routing principles used to identify alternative routes are listed below:

- Minimize length;
- Minimize angles;
- Maintain as much distance as practicable from densely-populated residential areas, individual homes, and public facilities (i.e., religious facilities, schools, etc.);
- Minimize impacts to social resources such as residences and cultural resources;
- Minimize impacts to natural resources such as wetlands, woodlands, and wildlife;
- Minimize impacts to airports and airstrips;
- Minimize conflict with current and planned uses of land;
- Minimize visual contrast with natural landscape;
- Minimize impacts to irrigation systems;
- Follow existing rights-of-way (ROWs) such as for roads or electric transmission lines, as appropriate; and
- Avoid federal and state lands and conservation and restricted easement areas.

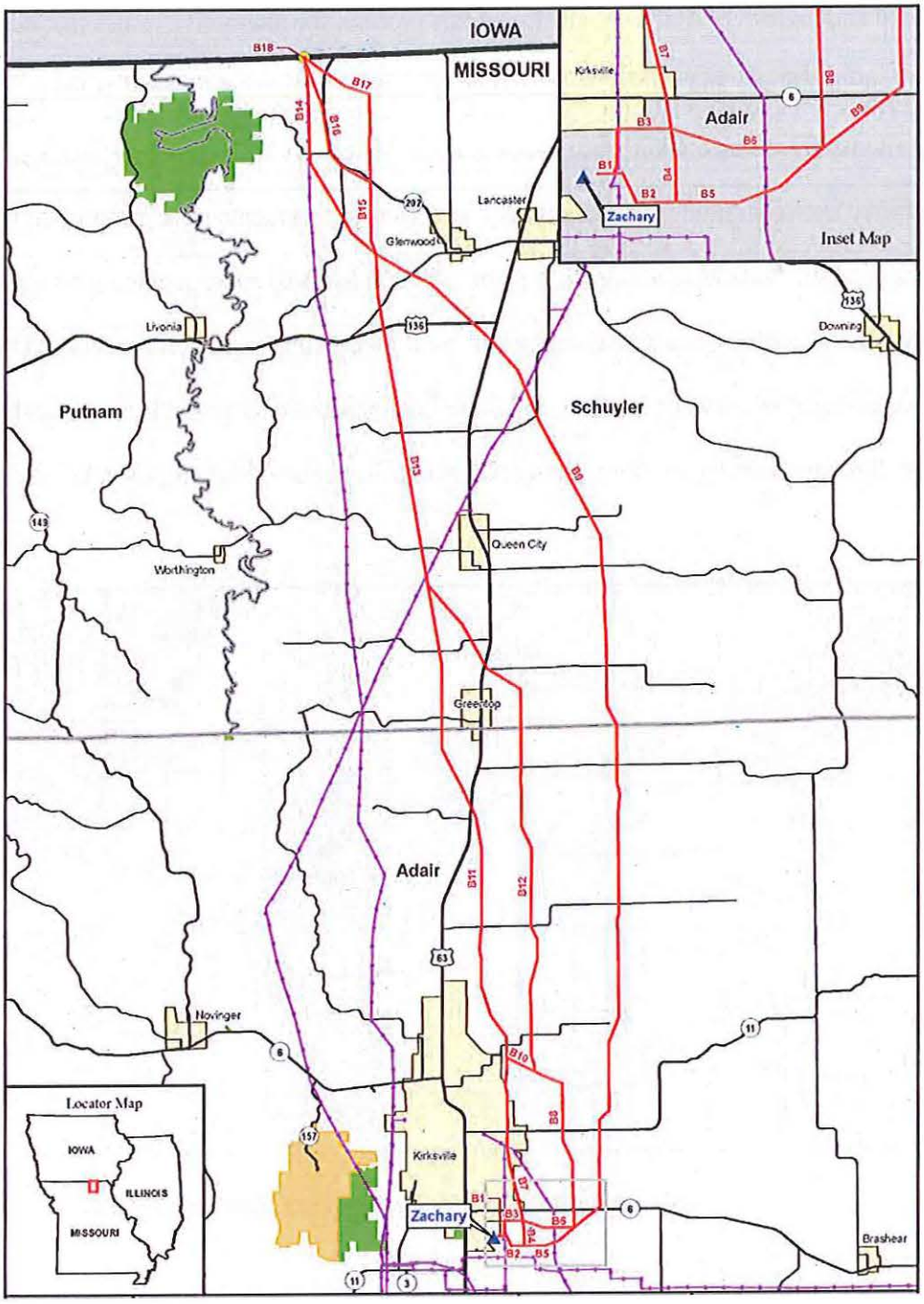
Q. What was the next step in the route development process?

A. For the alternative route segments that had been identified and retained as part of this desktop review, the Project team conducted a field review of the alternative routes along publicly accessible roads to verify the feasibility of the routes and to facilitate the further screening and evaluation of the routes. In addition, agency and elected official feedback was

obtained and reviewed. At the conclusion of this process, the alternative routes that best adhered to the routing criteria and minimized potential impacts were carried forward as the preliminary route alternatives. Based upon these considerations, a network of 20 route segments was established between Maywood and Zachary, and 18 route segments were established between Zachary and the State Line termination point. The 20 identified route segments between Maywood and Zachary could be combined to form 16 possible route combinations. The 18 segments identified between Zachary and State Line generated 39 possible route combinations. The preliminary network of route alternatives for each section of the proposed Project is shown below:



Maywood to Zachary Preliminary Route Network



Zachary to State Line Preliminary Route Network

VI. AGENCY AND PUBLIC INVOLVEMENT

Q. You testified earlier that the Project team sought feedback from the public and various agencies during the route selection process. Generally speaking, what opportunities were the public and other agencies given to provide feedback during the route selection process?

A. The route selection process included several opportunities for public input. Input was first obtained through direct correspondence with local, state and federal agencies. Local leaders and elected officials were engaged on multiple occasions in the form of individual meetings and community representative forums to provide input on the Project and to provide further information on community and landowner attitudes relative to the Project. In addition, two rounds of public open house workshops were held by ATXI.

The opportunities for public input were useful during the planning process in determining residents' and public officials' values and attitudes regarding the Project. The public workshops also provided the public with information and the opportunity to ask questions about the need for the Project, engineering, right-of-way issues, the route selection process, and criteria used to select the proposed route, as well as a forum to voice concerns regarding the proposed Project. Through the public involvement process, the Project team was able to obtain additional information on specific social and natural resources within the study area for consideration in the route selection process.

Q. Describe the contact the Project team had with state and federal agencies regarding the Project.

A. State and federal agencies were contacted by letter in May 2014 requesting information on potential issues of concern (such as threatened and endangered species, wetlands,

wildlife resources, and other potential permitting issues) regarding the Project. Federal agencies contacted included the U.S. Department of Agriculture Natural Resources Conservation Service, the Federal Emergency Management Agency, the U.S. Army Corps of Engineers, U.S. Fish & Wildlife Service, and the Federal Aviation Administration. State agencies contacted included the Missouri Department of Agriculture, Missouri Department of Conservation, Missouri Department of Natural Resources, Missouri Department of Transportation, and the Missouri State Historic Preservation Office.

Q. What main topics were identified by federal and state agencies related to the Project?

A. Agency responses included information about federally endangered and proposed endangered species and their habitat, protected migratory birds, seasonal construction restrictions for spawning fish, diverse aquatic communities, existing conservation and environmental easements, erosion considerations, and fragmentation of woodland habitat.

Q. What contact did ATXI have with elected officials in the Project area?

A. As part of the public outreach process for the Project, ATXI representatives contacted (either by phone or in person) numerous elected officials and local leaders between June and October 2014. The officials and leaders included county commissioners, public works directors, county road commissioners, county coordinators, county clerks, county assessors, road and bridge departments, Missouri state senators and representatives, and various state directors. The main purpose of these meetings was to describe the Project to these officials and leaders and to gather feedback from these individuals on specific local and county issues or concerns with the Project and within the study area. Feedback obtained from these contacts was documented in

a Stakeholder Database Management System and considered by the Project team throughout the routing process.

Q. Describe the contact that ATXI and the Project team had with community representatives regarding the Project.

A. In advance of the first round of public open houses on the preliminary route network and the second round of open houses on the reduced route network, community representative forum meetings were hosted by ATXI representatives and Project team members. The purpose of these meetings was to encourage the participation of community and agency representatives and to gain region-specific information for consideration in the routing process. At these meetings, attendees had the opportunity to preview the public open house set up, information, and displays and provide feedback via a questionnaire and discussions with Project team staff. The forum meetings included public officials, representatives of local municipal groups, agency representatives, and other community stakeholders within the study area. During the preliminary route network phase, initial forum meetings were held on August 5, 6, and 7, 2014, in Kirksville, Newark, and Palmyra, respectively. A total of 18 officials attended the forum meetings, and 14 questionnaires were received from attendees following the meetings. For the subsequent reduced route network phase, community representative forum meetings were held on October 28, 29, and 30, 2014, in Palmyra, Newark, and Kirksville, respectively. A total of 23 officials attended this second set of forum meetings.

Q. Describe the public open houses held regarding the route selection for the Project.

A. Two rounds of public open house workshops were held to provide stakeholders with information about the Project, gather public input on the initial route alternatives and

community values, and provide a forum for potentially affected landowners and agencies to discuss the Project with Project staff. The initial round of public open houses presented the preliminary route alternatives network between the Project endpoints, and these open houses were held on August 5, 6, and 7, 2014, in Kirksville, Newark, and Palmyra, respectively. For this first round of open houses, 1,838 individual letters were mailed to landowners within 2,500 feet of any alternative route. If a person owned more than one parcel within 2,500 feet, the person received only one letter. Letters were also mailed to 109 local leaders and agency representatives. All letters encouraged participation in the open houses to speak with Project representatives, verify contact information, and provide feedback on the route alternatives.

The second round of public open houses focused on the reduced route network and was held on October 28, 29, and 30, 2014, in Palmyra, Newark, and Kirksville, respectively. For this second round of open houses, all landowners who were mailed letters during the first round were mailed letters inviting them to the second round, with an additional 56 letters mailed to people who specifically requested to be kept informed about the Project. Letters were also mailed to 125 local leaders and agency representatives.

Q. What information about the Project was presented at these open houses?

A. Displays containing information on the Project need and benefits, schedule, engineering (design), construction, route alternatives, route selection process, routing sensitivities, additional permit requirements, vegetation management, and ROW requirements were presented at the public open houses.

Participants at the workshops received a Project information sheet and a questionnaire to communicate their opinions on the sensitivities and routing concerns, the segment locations, and additional issues of concern regarding the Project. Questionnaires could be completed and left at

the workshops, completed and mailed back to Project staff, or completed online via the Project website. In addition, six GIS computer stations were available at each round of public open houses to allow the public the opportunity to provide feedback on their properties, the proposed routes, or any other areas of concern, as well as obtain maps of the route alternatives relative to their property.

Over the course of the two rounds of meetings, 1,077 people attended the public workshops, and 451 questionnaires were returned and 665 comments were documented at the GIS computer stations. The information received from the questionnaires and GIS computer stations was used to help make segment adjustments and ultimately to assist with the selection of the final route. **Schedule CJW-01** includes copies of the letters and associated maps that were sent to invite landowners to the public open house meetings and materials handed out at the open house meetings, as well as the questionnaire and a compilation of the questionnaire results.

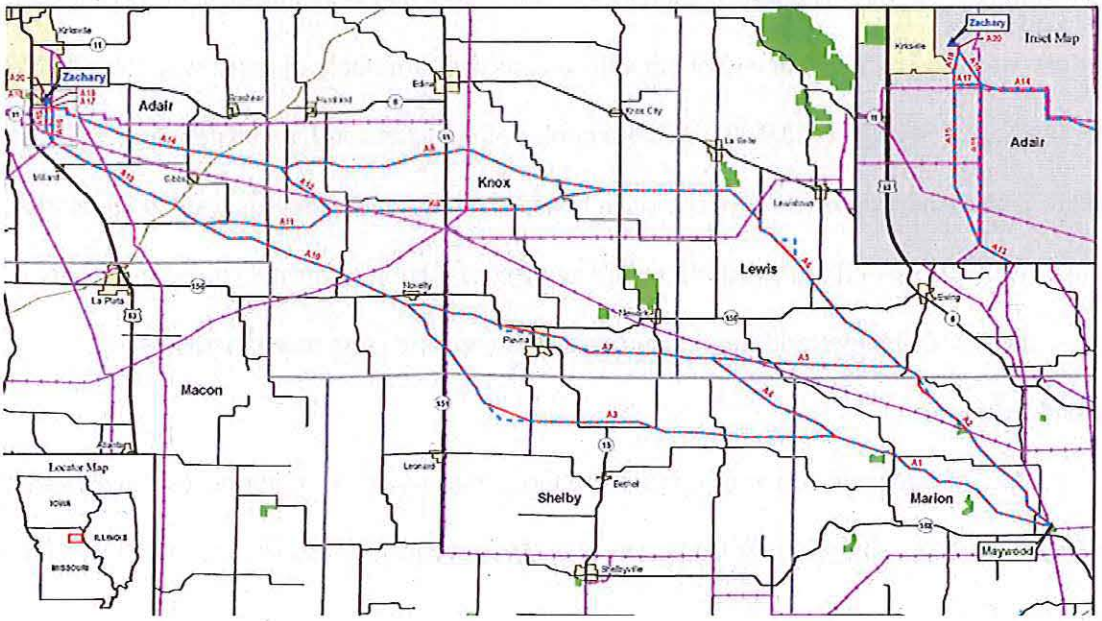
Q. Did stakeholders or members of the public raise any particular considerations?

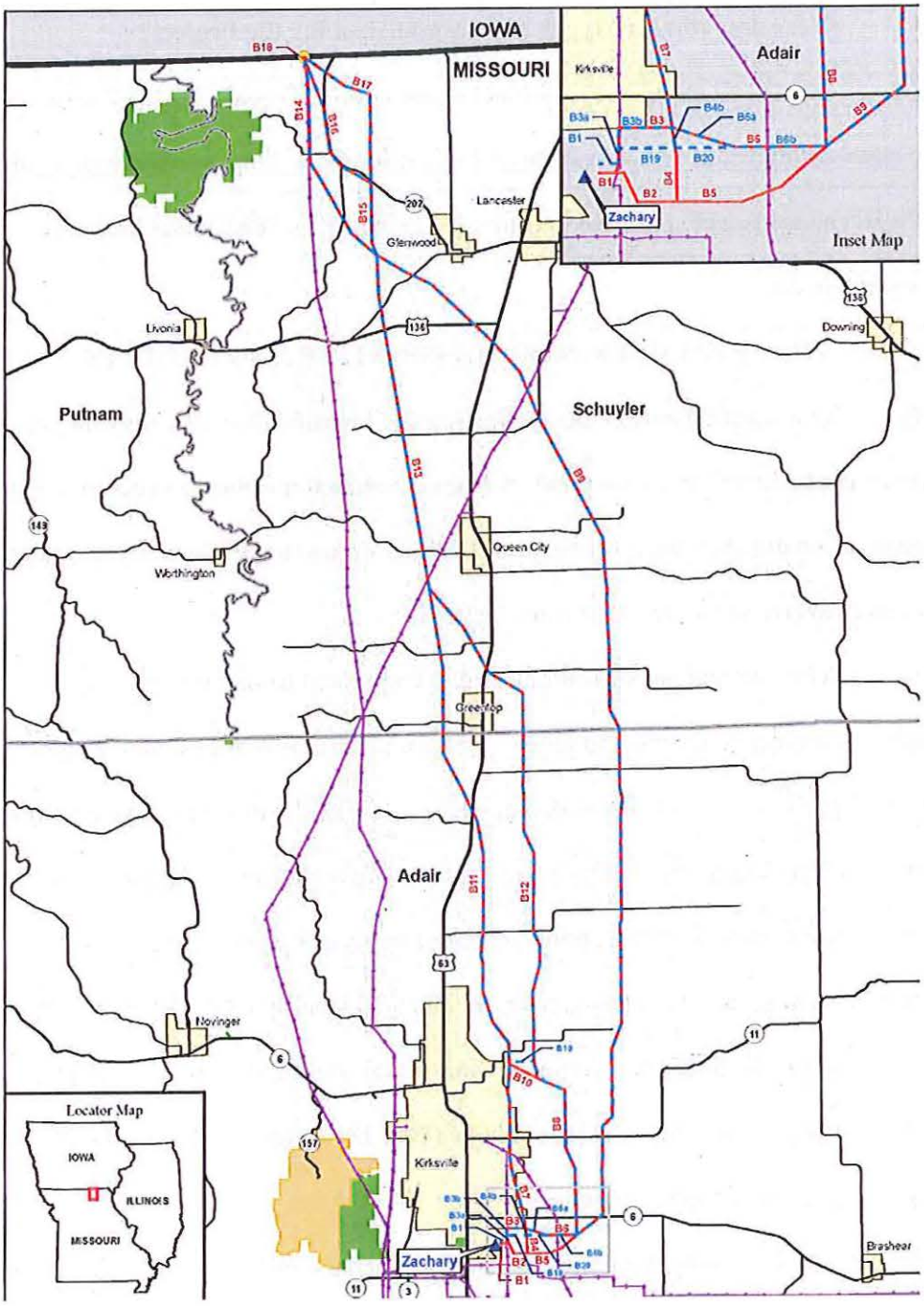
A. The main concerns raised were the proximity of the routes to residences and the potential impacts to agricultural lands. The other most frequently identified concern was impacts to forested lands.

Q. Did input received from these outreach efforts to federal and state agencies, local governmental officials, and the public have any effect on the route selection for the Project?

A. Yes. Throughout the course of Project route development, adjustments were made to route segments based on field reconnaissance, input received from the public workshops and community representative forums, and correspondence with agencies and other public officials.

Following the first round of open houses, adjustments were made to avoid center-pivot irrigation systems, airstrips, previously unidentified residences, and an air route surveillance radar station. In addition to the above adjustments, several other minor adjustments were made to minimize stream crossings, wetlands, and angles, maximize distance from residences, and to allow for future Zachary Substation expansion. The segment adjustments made to the Maywood to Zachary portion and Zachary to State Line portion of the preliminary route networks are shown below:




IOWA
MISSOURI
Adair
Kirksville
Inset Map
Zachary
Lancaster
Glenwood
Livonia
Downing
Putnam
Schuyler
Queen City
Worthington
Greentop
Adair
Novinger
Kirksville
Zachary
Brashear
Locator Map
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ILLINOIS
MISSOURI

Q. Were any other outreach tools established for the Project?

A. Yes, ATXI established a Project phone hotline, Project website, Project email box, and other social media tools to inform and solicit feedback from stakeholders and the public. Project contacts were captured in Burns & McDonnell's Stakeholder Database Management System.

VII. EVALUATION OF ALTERNATIVE 345-kV ROUTES

Q. You testified earlier that following the identification of a network of preliminary route alternatives, the Project team developed a reduced route network of alternatives. How did the Project team and ATXI evaluate the preliminary alternative routes so as to arrive at the reduced route network?

A. After the route modifications were incorporated from the first round of community representative forums and public open houses, Burns & McDonnell conducted an analysis of the preliminary route networks for each portion of the Project (Maywood to Zachary and Zachary to State Line). This analysis was based on a comparison of numerous routing criteria as applied to each alternative route, including many of the principles listed above. The analysis was used to screen the route alternatives and help identify a smaller, more manageable number of routes for the final round of public open houses (reduced route network phase).

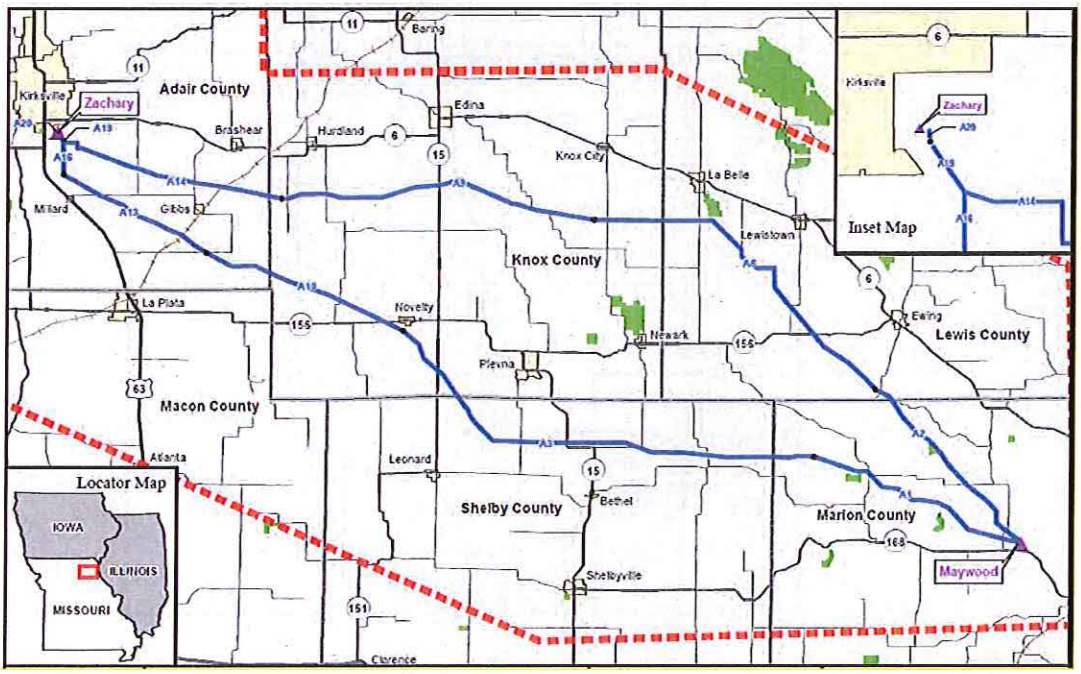
Q. Can you provide an example as to how the criteria were considered in determining the reduced route networks?

A. Yes, for example, for the Maywood to Zachary portion of the Project, route alternatives using Segments A4 and A7 were compared to route alternatives using Segment A3. Although route alternatives using Segments A4 and A7 had a slightly less residential proximity, length, and number of parcels crossed, the team determined that route alternatives utilizing

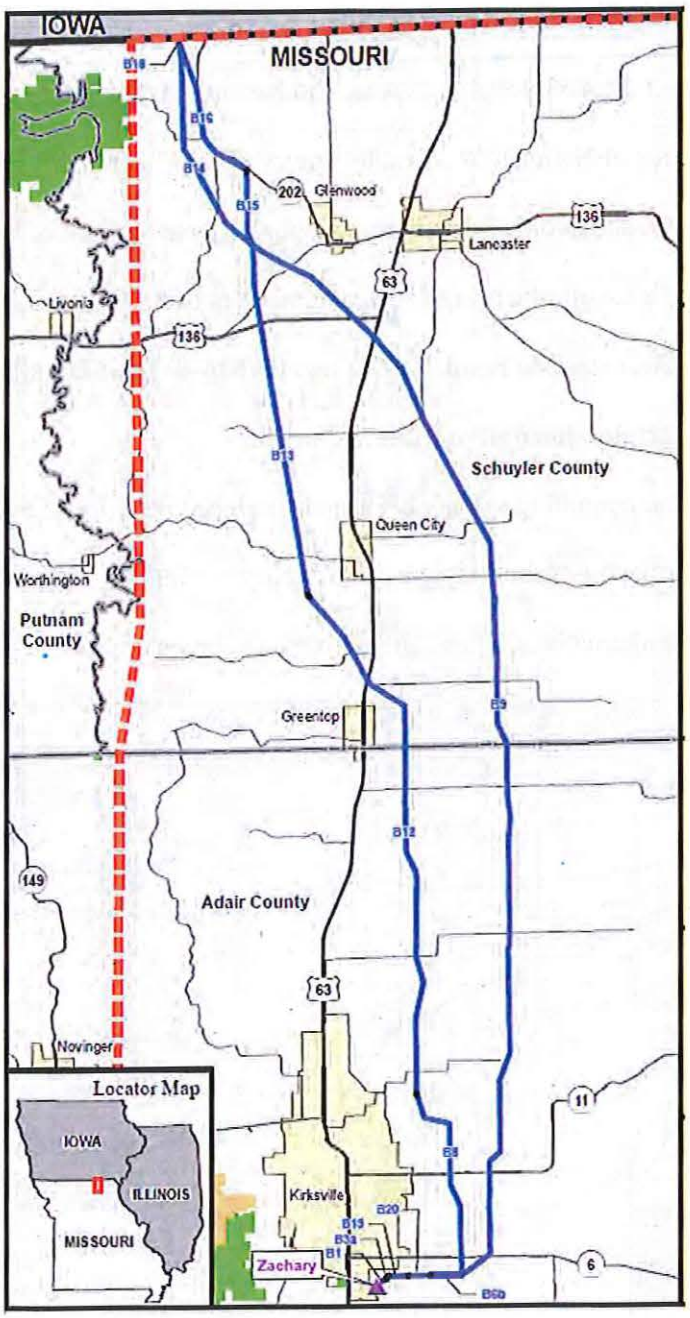
Segment A3 were preferred since these alternatives avoided paralleling the South Fabius River and its associated floodplain along Segment A4, an area that is also prone to flooding. Segment A3 also avoided a private airstrip located along Segment A7, kept route alternatives a greater distance from the towns of Novelty, Plevna, and Newark, avoided the crossing of two tree farms, crossed fewer acres of National Wetland Inventory ("NWI") wetlands and prime farmland/cropland, and avoided proximity to a quarry located north of Segment A7. These comparisons led to the elimination of route alternatives using Segments A4 and A7.

Q. What was the result of this segment-by-segment comparison and the elimination of certain alternative route segments?

A. The remaining segments formed a reduced network of potential routes for both sections of the Project. For the Maywood to Zachary section, the remaining segments comprised two distinct route alternatives. These alternatives are shown below:



For the Zachary to State Line section, four route alternatives remained. These alternatives are shown below:



These remaining route alternatives were all considered viable and similar in terms of constructability. The reduced route network was introduced to the public during the second

round of public open house meetings in October 2014. These meetings were held to provide those landowners still potentially affected a means to submit additional information or feedback to the Project team prior to the selection of the final route. Additional information gathered from landowners at the final round of open house meetings was used to provide another level of scrutiny among possible routes.

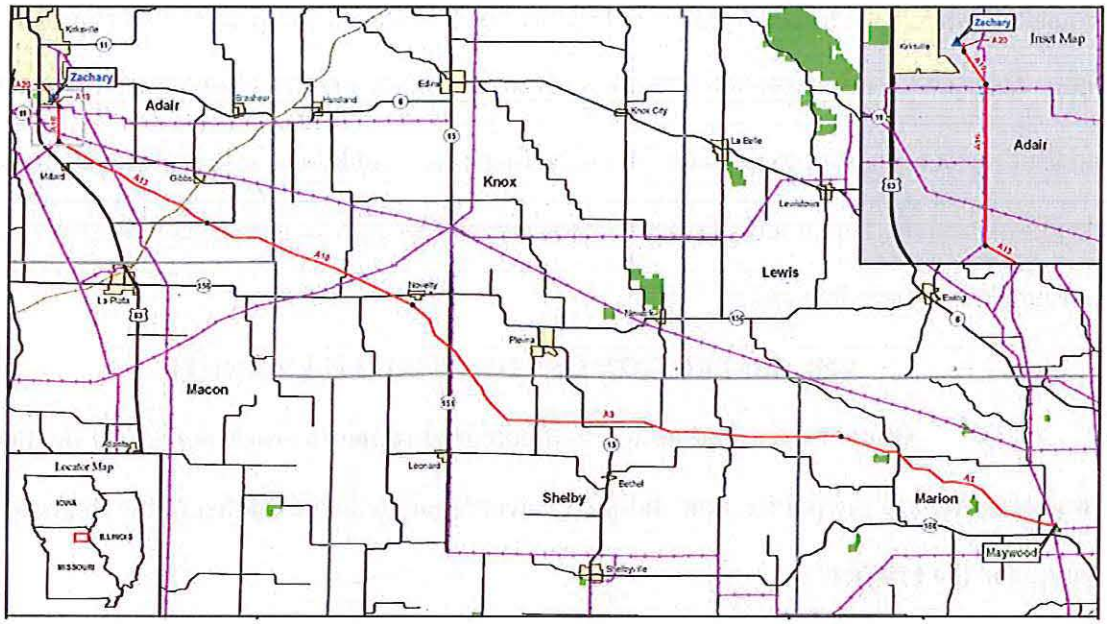
VIII. SELECTION OF THE FINAL 345-kV ROUTE

Q. Once the reduced network of potential routes for each portion of the Project was presented to the public, how did the Project team go about finalizing the final 345-kV route for the Project?

A. At the conclusion of the final round of public meetings, Project team members compiled all comments received from landowners on the reduced route network. This information was reviewed along with comments from state and federal agencies and other public officials. A route selection meeting was held on December 16, 2014, including staff from ATXI and Burns & McDonnell, to review, consider, and discuss all of the information gathered on the alternative routes, determine a final route alignment, and make a final selection.

Q. Which of the two alternate routes for the Maywood to Zachary portion of the Project was selected?

A. The final route alignment selected between Maywood and Zachary is Route 1 and is depicted below:



Q. Why was Route 1 selected?

A. Route 1 was selected over the other final routes for construction based on a variety of factors. As mentioned above, the selection was determined not only through a route analysis process, but through input from the general public, potentially affected landowners, agencies, and the Project team.

The most important routing factors to the public, based on questionnaires submitted during the public open house process, were to minimize length across farmland and maximize distance from residences. Route 1 minimizes length across farmland, which was ranked as the highest priority by the public. Route 1 crossed more cropland acres (433 acres versus 337 acres for Route 2) but crossed the least amount of prime farmland acres (460 acres versus 574 acres for Route 2) among the final two routes for prime farmland/cropland impacts. Route 1 also had the lowest residential proximity among the final two routes, with only 1 residence located within 300 feet of the selected alignment, and 13 total residences located within 500 feet of the alignment

(Route 2 has 3 residences within 300 feet of the alignment and 17 total residences located within 500 feet of the alignment).

Q. Were there other considerations that contributed to the selection of Route 1 for the Maywood to Zachary portion?

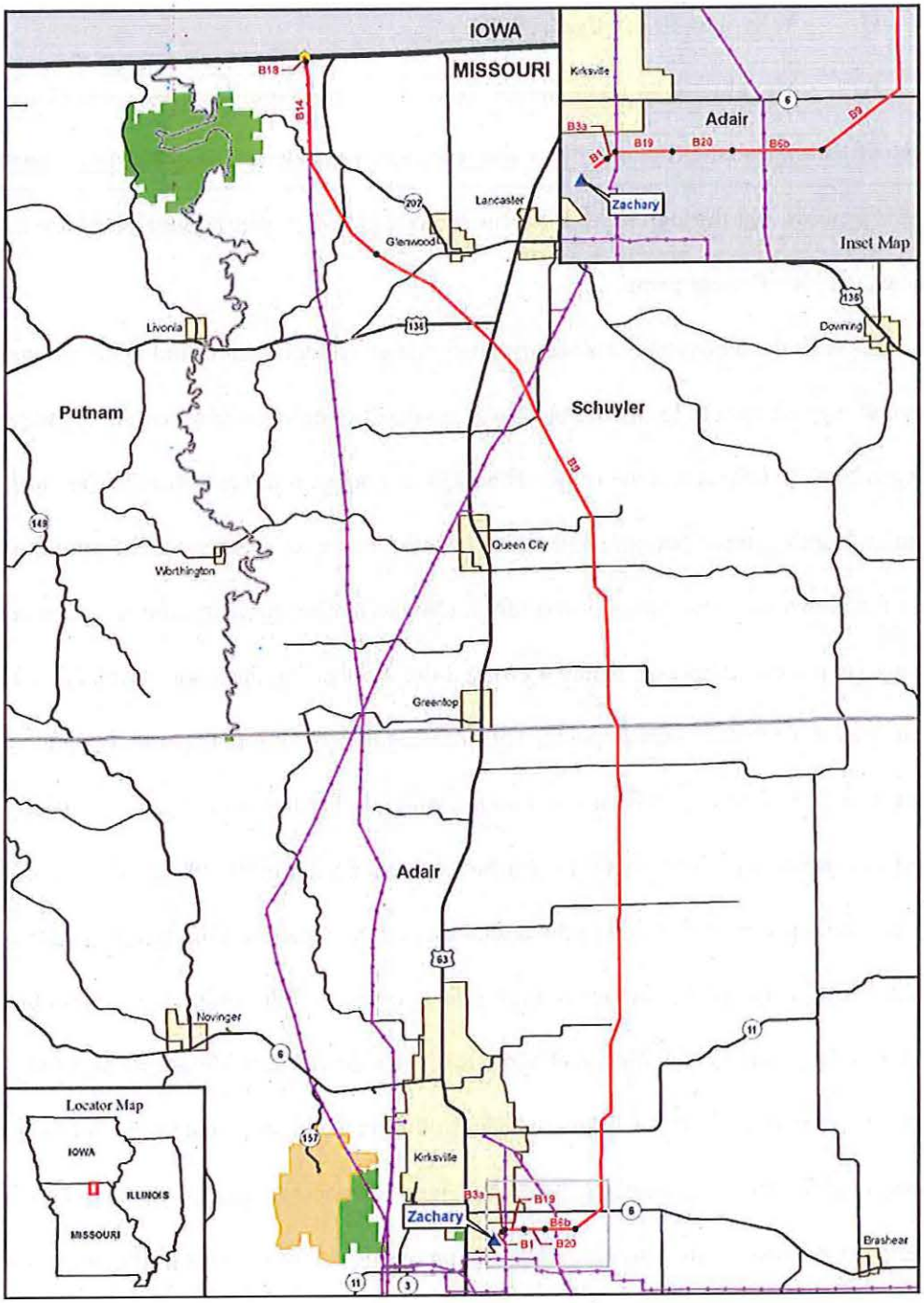
A. Yes. Some of the other considerations that led to the selection of Route 1 for the final route included Route 1 not passing through any municipal areas and avoiding areas of potential development, a concern for landowners located along some of the preliminary routes. In addition, Route 1 had less angle considerations, crossed fewer roads, and crossed fewer acres of NWI wetlands than did Route 2. Route 1 avoided crossing any federally-owned or operated lands and also avoided state-owned wildlife refuges, state parks, and conservation areas. Route 1 crossed approximately 0.8 acre of a privately owned, state-operated Stream Stewardship Agreement Easement along the South Fabius River, compared to Route 2, which crossed approximately 3.9 acres of another privately owned, state-operated Stream Stewardship Agreement Easement. Route 1 also avoided Natural Resources Conservation Service watershed easements, some of which would be crossed by Route 2.

Overall length is an indicator of potential impacts; a longer route generally has more impacts, whereas a shorter route typically has fewer impacts. Route 1 was one of the shorter, more direct routes between the Maywood Switching Station and Zachary Substation (only 1.2 miles longer than the overall shortest route and shorter than Route 2 by 1.5 miles). Route 1 also had fewer heavy angles (angles greater than 30 degrees) than Route 2. Heavy angles generally require more detailed design, require larger structures and foundations, and are generally more expensive. Overall, Route 1 provided a route between the two connection points (Maywood

Switching Station and proposed Zachary Substation) that avoided or minimized adverse impacts on natural and social resources and provided a cost-effective and technically feasible alignment.

Q. Which of the four alternate routes for the Zachary to State Line portion of the Project was selected?

A. The final route alignment selected between Zachary and the State Line is Route 4, which is depicted below:


IOWA
MISSOURI
Kirksville
Adair
B33
B19
B20
B6b
B1
B9
Zachary
Inset Map
Lancaster
Glenwood
Livonia
Downing
Putnam
Schuyler
Queen City
Worthington
Greentop
Adair
Novinger
Kirksville
Zachary
Brashear
Locator Map
IOWA
ILLINOIS
MISSOURI

Q. Why was Route 4 selected?

A. The alignment identified as Route 4 was selected for construction based on a variety of factors. As mentioned above, the selection was determined not only through a route analysis process, but through input from the general public, potentially affected landowners, agencies, and the Project team.

As with the Maywood to Zachary portion, the Project team relied upon the most important routing factors to the public, based on questionnaires submitted during the public open house process, to help select the route. The most important routing factors to the public were to minimize length across farmland and maximize distance from residences. Minimizing length across forested areas was also an important factor, according to the public responses during the open house process. Although Route 4 crossed the most prime farmland/cropland, it had the lowest score for forested land impacts. The crossing of cropland may present some inconvenience to farming activities and aerial spraying, but the landowner will still be able to farm under and around lines, in particular because the design of the line avoids the use of guy wires and only prevents farming in the actual area of the concrete foundations under each steel pole (the design also allows longer spans between poles, which minimizes the number of poles needed). ATXI witness David Endorf addresses these design considerations in detail in his direct testimony. In addition, there is typically very little loss to actual production, and landowners are compensated for any crop damage. Therefore, while impacts to cropland were a considerable concern to landowners, the Project would not have significant impacts to this resource. Route 4 also had the lowest residential proximity among the reduced routes, with only 5 residences located within 300 feet of the selected alignment, and 16 residences total located within 500 feet

of the alignment (Routes 1, 2, and 3 had 22, 20, and 18 residences total located within 500 feet of the alignment, respectively, and also had 5 residences located within 300 feet of the alignment).

Q. Were there other considerations that contributed to the selection of Route 1 for the Zachary to State Line portion?

A. Yes. Route 4 avoided the municipalities of Kirksville, Greentop, and Queen City, and avoided areas of potential development, especially on the eastern outskirts of Kirksville. Route 4 had the lowest angle considerations among the final route alternatives and avoided crossing any state- or federally-owned or operated lands, including wildlife refuges, state parks, and conservation areas. Route 4 also paralleled Ameren Missouri's existing Appanoose to Adair 161-kV transmission line for approximately 2.7 miles as it terminates at the Missouri state line, further reducing potential impacts by following an existing transmission line corridor.

Overall length is an indicator of potential impacts; a longer route generally has more impacts, whereas a shorter route typically has fewer impacts. Route 4 was the third shortest route between Zachary and State Line of the four route alternatives (although only approximately 1.1 miles longer than the shortest route for this section). Route 4 also had the fewest heavy angles (angles greater than 30 degrees). Heavy angles generally require more detailed design, larger structures and foundations, and are generally more expensive. Overall, the selected alignment provided a route between the two connection points (Zachary Substation and the State Line) that avoided or minimized adverse impacts on natural and social resources and provided a cost-effective and technically feasible alignment.

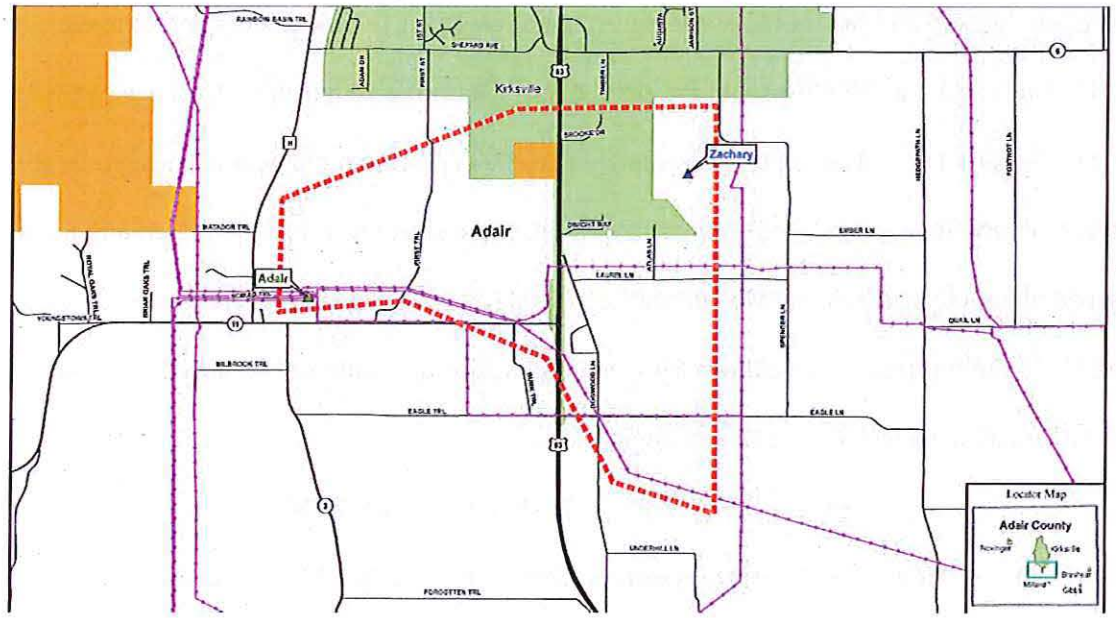
IX. ZACHARY TO ADAIR 161-kV ROUTE

Q. How does the route selection process for the 161-kV connector line compare with the process for the 345-kV line?

A. Because the 161-kV connector line is only about 2.2 miles long, the study area was much smaller – only about three square miles. Nonetheless, the route selection process also included a study area phase, a route network phase, public input phase, and the final route selection phase. A reduced route network phase was not necessary since there were only two route options developed during the route network phase.

Q. Explain the study area phase for the 161-kV connector line.

A. The study area was developed by the Project team to include the 161-kV connector line endpoints – Ameren Missouri's Adair Substation and the proposed ATXI Zachary Substation. Data on the resources within the study area was collected in conjunction with data collection for the 345-kV Project study area as discussed previously. Major features in the study area include the municipality of Kirksville, Missouri Department of Conservation Northeast Regional Office property, City of Kirksville water treatment plant, and a mobile home park along U.S. Highway 63. The study area for the 161-kV connector line is depicted in the figure below:



Q. Did ATXI consider different solutions for the 161-kV connector line?

A. Yes, ATXI initially investigated several different solutions for connecting the Adair and Zachary Substations. One solution would be to develop two new line segments extending from the Zachary Substation to an existing 161-kV transmission line (owned by Northeast Missouri Electric Power Cooperative (NMEPC)) located approximately 1.5 miles to the south of the Zachary Substation. The new segments would break the existing line, which currently connects the Adair Substation to the Novelty Substation (owned by NMEPC) to create connections between the Zachary and Adair Substations and Zachary and Novelty Substations. ATXI proposed to transfer the new line segment constructed from Zachary to the Novelty line tap to NMEPC, making NMEPC the line owner from Zachary to Novelty. In exchange, ATXI requested NMEPC to transfer the existing line segment from the new tap location to Adair, making ATXI the owner of the line segment from Zachary to Adair. Ultimately, NMEPC determined that there was no benefit to their company to make such an agreement with ATXI, so further negotiations ceased between the two parties for this solution.

Another solution considered was to develop two distinct, single-circuit 161-kV routes between the Zachary and Adair Substations. However, after consulting with ATXI, it was determined that these solutions would be more impacting since they would require two new transmission line corridors instead of one without providing any additional benefits. Therefore, it was determined that one single circuit line built with double-circuit 161-kV line structures would be preferred to connect the Adair and Zachary Substations and meet the Project needs.

Q. You have testified that the next phase of the route selection process was the route network phase. Explain your next steps.

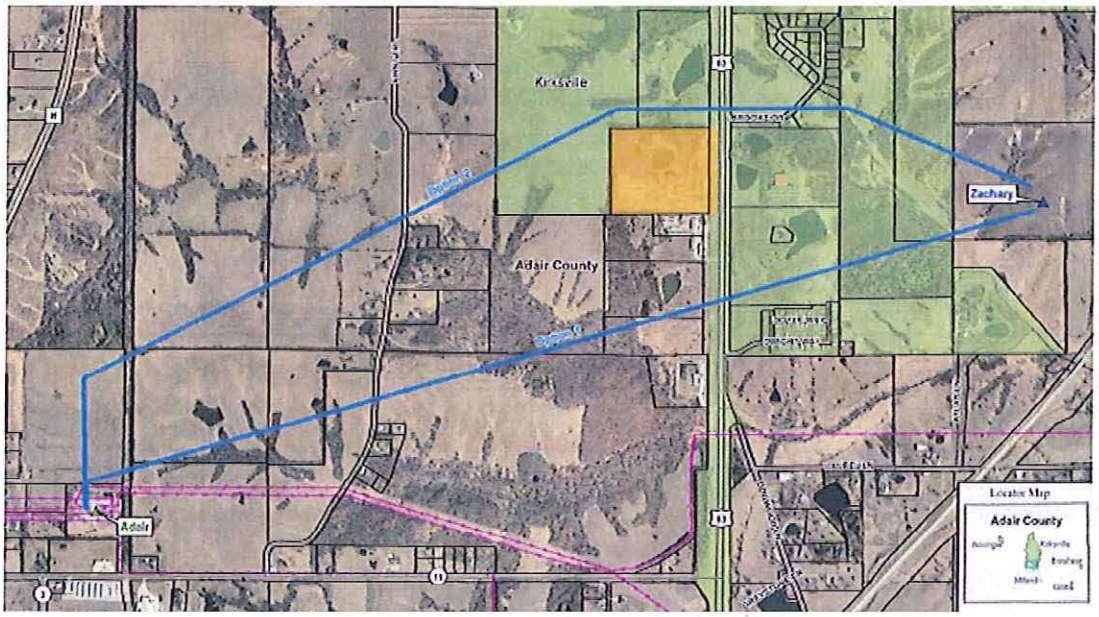
A. The study area was relatively small. Therefore, the route network phase involved the development of only two distinct alternative routes between the two endpoints. The objective was to identify potential routes that were geographically distinct and that minimized impacts on natural and social resources while providing a cost-effective and technically feasible alignment. To develop these alternate routes, Burns & McDonnell consulted with ATXI planning and line design engineers, reviewed available maps of the area and other study data, and conducted a field visit to the study area. The purpose of these activities was very similar to the efforts taken with regard to the 345-kV route—to identify potential constraints and opportunities within the study area.

Q. How did the Project team determine which route options to carry forward as the route alternative network?

A. Once constraints and opportunities were identified, the Project team began developing several route alternatives while also taking into consideration length, constructability, and potential cost issues. Several route alternatives were initially developed that would connect the Adair and Zachary Substations. Due to the small study area, short distance between the two endpoints, and study area constraints, only limited routing opportunities were considered.

The Project team held a series of meetings to review the route options to determine if each was constructible from an engineering perspective; acceptable from a social, environmental, and land use perspective; and advantageous over other routes. As a result of these meetings, several routes were dismissed from further evaluation, since they were basically only minor variations of another route and/or were longer, more impacting, and did not provide any advantage over another route alternative.

Ultimately, due to the small study area and limited routing possibilities, two route options that used the northern and central portions of the study area were carried forward between the Adair and Zachary Substations. Option 1 extends as generally a straight line between the Adair and Zachary Substations, while Option 2 was developed to the north of Option 1 to provide another geographically distinct option to connect the substations. The route alternatives for the proposed 161-kV connector line are shown below:



Q. Once the route alternatives were developed, what opportunities were provided for landowner and public input on the proposed routes?

A. Due to the small study area and limited route alternatives, individual landowner meetings were offered for those landowners potentially affected by alternative route Option 1 or Option 2. Overall, 15 letters were mailed to property owners potentially impacted by one of the two route alternatives; nine individual landowner meetings were held in Kirksville on February 25, 2015, one individual landowner meeting was held at the Days Inn in Kirksville on February 26, 2015 (prior to the open house), and one individual landowner meeting was held on March 10,

2015, in Kirksville. One landowner did not attend the individual landowner meeting but did attend the public open house workshop. Landowners were shown maps of the route options and had the opportunity to discuss the route options with ATXI and Burns & McDonnell staff in relation to their property.

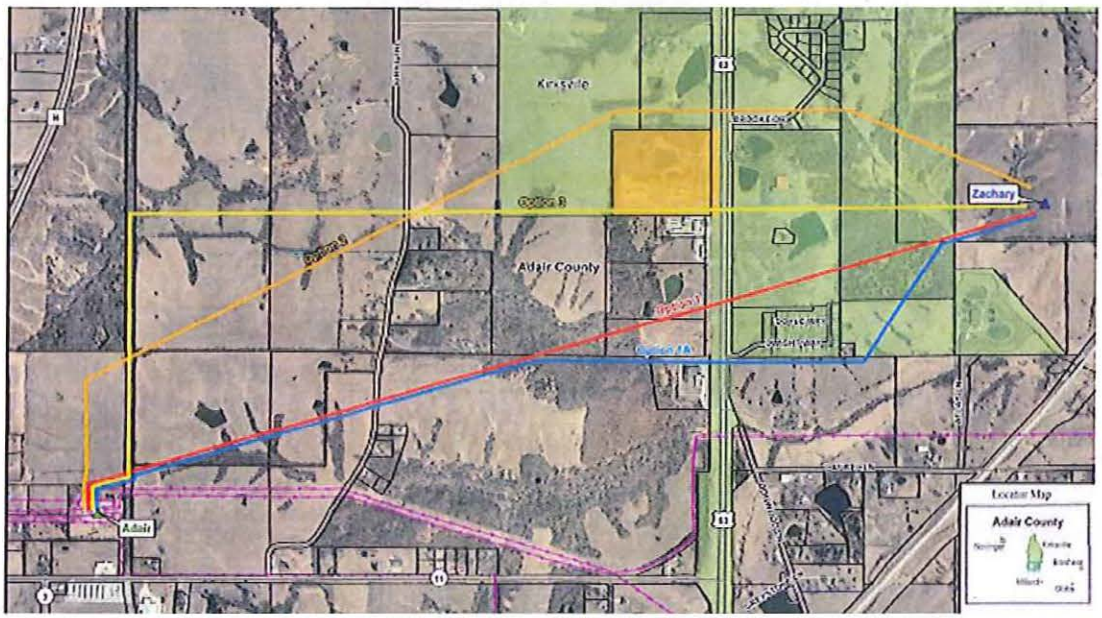
The public open house workshop was held by ATXI to obtain public input on the route alternatives. Notices for the open house workshop, held on February 26, 2015, were issued through a news release and letters to the affected landowners (who were also invited by ATXI to attend an individual landowner meeting). In addition to landowners who were potentially affected by the Project, federal, state and local agencies previously contacted early in the overall Project development process were notified by letter of the 161-kV connector line portion of the Project and invited to attend the public open house. Participants at the workshop received a 161-kV connector line information sheet and questionnaire to communicate their opinions on routing sensitivities and concerns, route locations, and additional issues of concern. Questionnaires could be completed and left at the workshop, completed and mailed back to Project staff, or completed online via the Project website. **Schedule CJW-02** includes copies of the letter and associated map that were sent to invite landowners to the public open house meeting, the individual landowner meeting invitation, and materials handed out at the open house meeting, as well as the questionnaire and a compilation of the questionnaire results.

The individual landowner meetings and the public workshop provided affected landowners, agency officials, and the public with information and the opportunity to ask questions about the need for the 161-kV connector line, engineering, right-of-way issues, the route selection process, and criteria used to select the proposed route. Through the public involvement process, the Project team was able to obtain information on specific social and

natural resources within the study area, such as future development, Conservation Reserve Program (CRP) property, and specific concerns on landowner property, for consideration in the route selection process.

Q. Were any changes made to the proposed alternative routes as a result of the public input received by ATXI?

A. Yes. Following the public open house and individual landowner meetings, a variation of Option 1 was developed (Option 1A), as well as another new route alternative (Option 3), based on input from landowners and the public. Option 1A was developed based on concerns with the crossing of a possible future subdivision. Option 3 was suggested because it would use state lands and commercial property (as opposed to residential) for a portion of its length. Below is an illustration of the additional route options developed following the public open house:



Q. Now that four route options have been identified for the 161-kV connector line, what did the Project team do to evaluate these options?

A. The evaluation was focused on determining which route minimized overall impacts to natural and social environments while also providing an economical and constructible alignment for the 161-kV connector line. The route evaluation consisted of a systematic comparison of the alternatives based on specific evaluation criteria. These criteria address typical route characteristics and potential concerns of the public (proximity to residences), agencies (wetlands, land use, state lands), local officials, and ATXI (Project cost and feasibility). Similar to the criteria considered by the Project team in evaluating the 345-kV route, the team evaluated criteria in three categories: engineering, social, and environmental/land use:

Route Evaluation Criteria

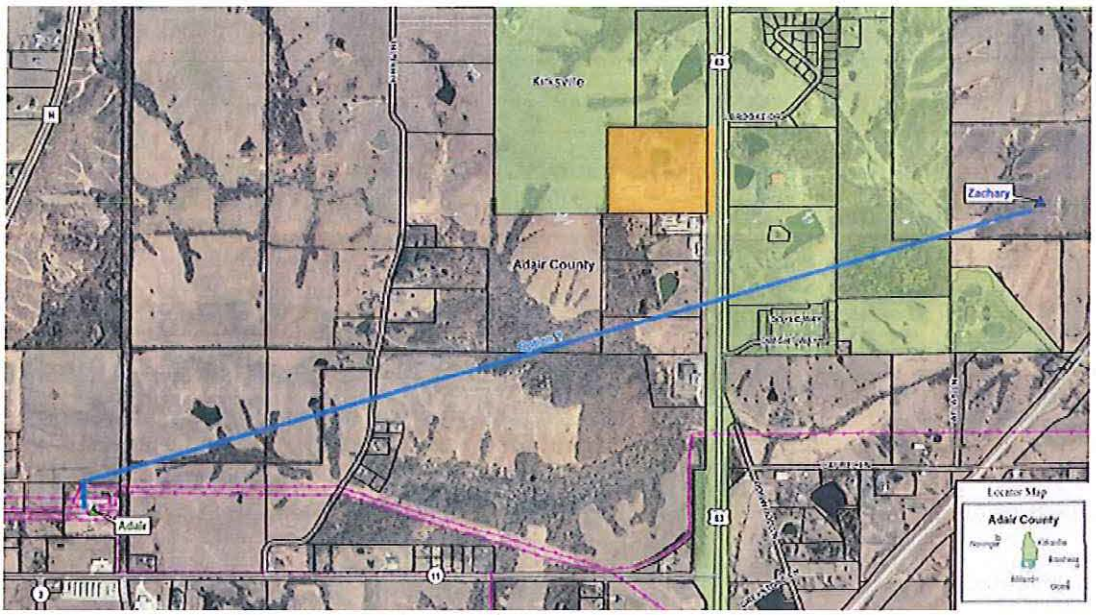
Categories	Evaluation Criteria
Engineering	Total length (miles)
	Road crossings (number)
	Angles (score)
Social	Residential proximity (score)
	Parcels within ROW (number)
	Length through proposed subdivision (feet)
Environmental / Land Use	Forested land within ROW (acres)
	Prime farmland within ROW (acres)
	State park or State land within ROW (acres)
	NWI wetlands within ROW (acres)
	Streams crossed (number)

An evaluation of each criterion was conducted to determine which route(s) had fewer impacts; however, design and cost were also important considerations. In addition, comments received from the public open house and individual landowner meetings were reviewed.

Q. How was a final route for the 161-kV connector line selected?

A. Burns & McDonnell and ATXI staff met on two different occasions to discuss the selection of a final route alignment. Based upon the comparative analysis, public and agency

input, and Project team feedback, Option 1, which has a total length of approximately 2.2 miles, was selected as the final route. Option 1 is shown below:



Q. What particular considerations pointed towards the selection of Option 1 as the final route?

A. Option 1 was the shortest and most direct route at 2.2 miles, has the lowest angle score (only 1 heavy angle out of the Adair Substation) among all routes, crosses fewer roads, crosses the least amount of prime farmland (10.8 acres), avoids crossing any state-owned lands, crosses the fewest number of streams, and crosses less Kirksville municipal area than Options 2 or 3. While Option 1 crosses a proposed subdivision, the site plan for the proposed subdivision is only preliminary, and ATXI would work with the property owner to minimize conflicts with future site development in this area. While Option 1 has the second highest residential proximity score, there are no homes within 0 to 150 feet of the route centerline and only one home within 151 to 300 feet of the route centerline; the majority of the homes are located within 501 to 1,000 feet of the route centerline of Option 1 within a mobile home park. The proposed subdivision and

mobile home park are owned by the same landowner. Although Option 1 does not have the lowest potential impacts for all routing factors, it provides the best overall option for minimizing impacts on natural and social resources while providing a cost-effective and technically feasible alignment.

X. CONCLUSION

Q. What do you conclude regarding the route selection for the Project?

A. The final route alignment for each segment of the Project, which was determined only after a detailed analysis process and input from potentially affected landowners and other stakeholders, was selected because it would minimize the overall social and environmental impacts of the Project while providing an economical and reasonable route for design and construction.

Q. Is it possible that changes will be made to the final routes?

A. Based on local conditions that may be identified or encountered during survey, final engineering, design, right-of-way acquisition, or construction, ATXI may be required to make minor adjustments to the final route alignments. These adjustments would be to address specific, localized conditions or circumstances not readily apparent as part of the route selection process, but would not be anticipated to result in substantial (if any) additional impacts and would be at ATXI's discretion. Any adjustments would generally be intended to reduce overall environmental impacts, reduce Project inconvenience to landowners, and/or protect public safety.

Q. Does this conclude your direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of Ameren Transmission Company of Illinois for Other Relief or, in the Alternative, a Certificate of Public Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage a 345,000-volt Electric Transmission Line from Palmyra, Missouri, to the Iowa Border and an Associated Substation Near Kirksville, Missouri.	)))))))	File No. EA-2015-0146

AFFIDAVIT OF CHRISTOPHER J. WOOD

STATE OF MISSOURI)
) **ss**
COUNTY OF JACKSON)

Christopher J. Wood, being first duly sworn on his oath, states:

1. My name is Christopher J. Wood. I work in Kansas City, Jackson County, Missouri, and I am employed by Burns & McDonnell Engineering Company, Inc.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of Ameren Transmission Company of Illinois consisting of 36 pages, and Schedule(s) CJW-01 and CJW-02 all of which have been prepared in written form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct.

Christopher J. Wood

Subscribed and sworn to before me this 21st day of May, 2015.

Notary Public

My commission expires:

ELIZABETH J. WALKER
Notary Public - Notary Seal
STATE OF MISSOURI
Jackson County
My Commission Expires May 22, 2018
Commission # 14619609

Invitation to Participate in the
Mark Twain Transmission Project
Community Representative Forum

Ameren Transmission Company of Illinois (ATXI) is planning to build a 345,000-volt transmission line in northeast Missouri along with a new substation near Kirksville. Known as the Mark Twain Transmission Project, it consists of two transmission line segments (Palmyra to Kirksville, and Kirksville to the Iowa border) totaling approximately 100 miles. The project will benefit Missouri and the region by improving overall electrical system reliability and efficiency, while increasing access to lower-cost energy sources, including renewable resources such as wind energy.

We are holding a series of public open houses to introduce the project, present potential routing options and solicit feedback. Landowners within 2,500 feet of any of the proposed route options, as shown on the enclosed map, will be mailed a letter on July 14th, inviting them to the open houses.

You are welcome to attend any of the open houses. In addition, you are invited to attend a **Community Representative Forum (CRF).** The purpose of the CRF is to encourage the participation of community representatives and to gain region-specific information that is vital to the routing process. The CRF includes public officials, representatives of local municipal groups, agency representatives and other community stakeholders within the project area. As a participant, you:

- Will be briefed on the Project's need, benefits and schedule.
- May participate in the route development by helping prioritize criteria being considered.
- Will become more knowledgeable and better able to respond to questions about the project from the community.

A continental breakfast will be provided at the CRFs. A designated representative may attend in your place. Please select a date to attend below and RSVP by calling **1-888-340-6640** or by emailing **MarkTwainTransmission@ameren.com** by July 28th. Please indicate which meeting date you plan to attend. We look forward to working with you as we plan this important project.

Community Representative Forums are from 8:00 a.m. – 9:30 a.m.
Open Houses are from 4:00 p.m. – 7:00 p.m. (refreshments provided)
The open houses are informal—the public is welcome to attend anytime during the hours listed.

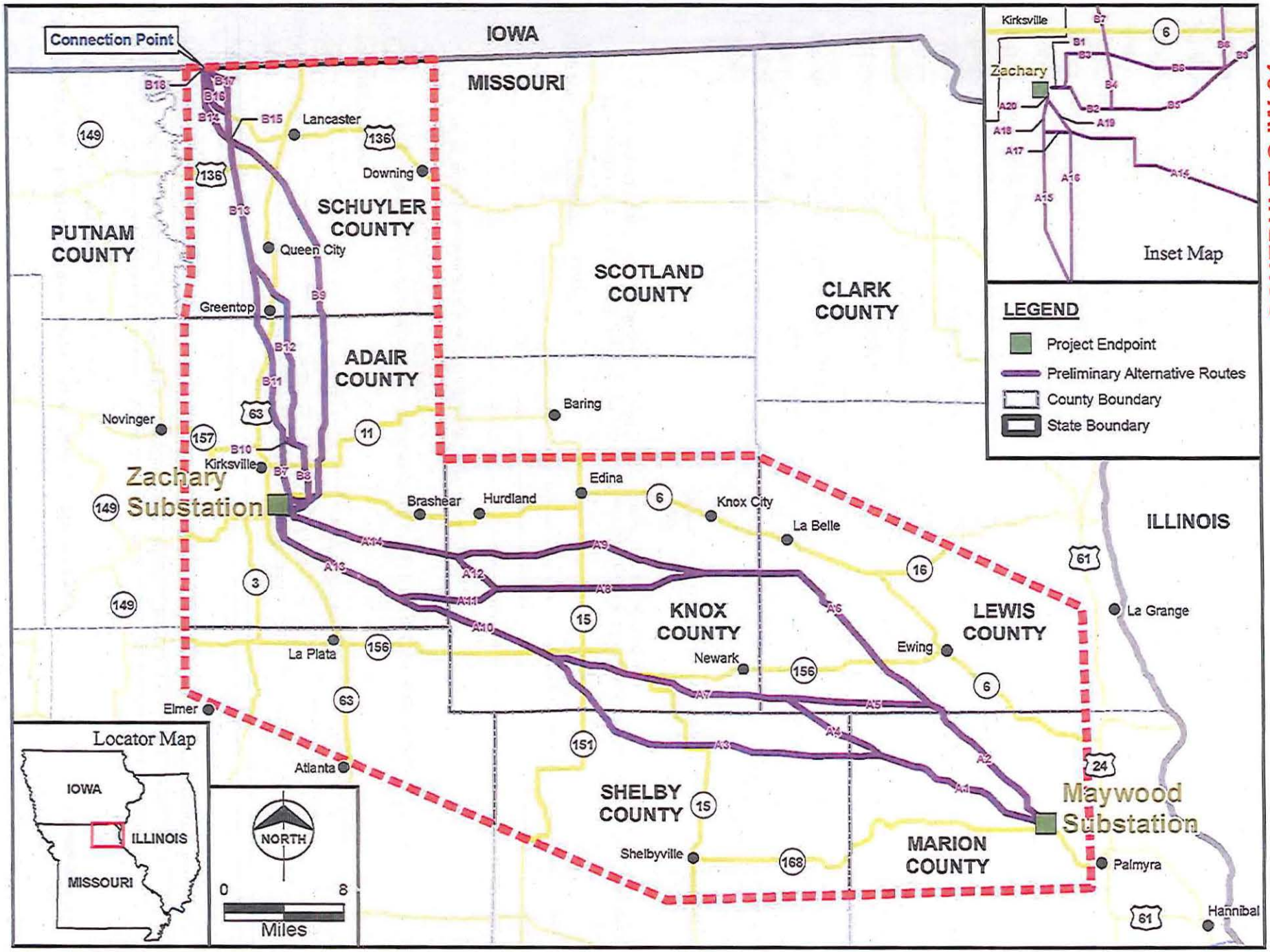
Tuesday, Aug. 5	Wednesday, Aug. 6	Thursday, Aug. 7
El Kadir Shrine Club	Heartland Ozark Lodge & Steakhouse	American Legion Hall Post 174
2401 S. Baltimore	400 New Creation Rd. North	600 Short Street
Kirksville, MO 63501	Newark, MO 63458	Palmyra, MO 63461

Sincerely,

Peggy L. Ladd

Peggy L. Ladd
Director, Ameren Transmission Stakeholder Relations
PLADD@ameren.com

SCHEDULE CJW-01



SCHEDULE CJW-01

Community Representative Forum – Participant Survey
Mark Twain Transmission Project

This survey will help the routing team understand the interests of your organization and the public, and will allow the team to incorporate this information into the route selection process. A similar survey will be available to the public at the open houses and electronically on the project website through August 22. Thank you for your participation!

YOUR INFORMATION

Name: _____ Phone: _____

Organization: _____ Email: _____

Address: _____ City/State/Zip _____

PROJECT NEED

1. Do you believe the purpose/need for this transmission line has been explained adequately?
☐ Yes ☐ No ☐ Uncertain

If "no" or "uncertain," what additional information would be helpful to you?

_____

_____

_____

LINE ROUTING CONSIDERATIONS

2. The routing of a transmission line involves many considerations. From the list of routing factors below, please circle the number corresponding to the level of importance of that factor to you.

Factor	Not Important	.....	Somewhat Important	.....	Most Important
a) Maximize distance from homes	1	2	3	4	5
b) Maximize distance from commercial/industrial facilities/businesses	1	2	3	4	5
c) Maximize distance from public facilities (e.g. schools, parks, churches, cemeteries, etc.)	1	2	3	4	5
d) Maximize length along property or section lines	1	2	3	4	5
e) Minimize the total number of poles by selecting the most direct route	1	2	3	4	5
f) Minimize crossing wetlands, floodplains and streams/rivers	1	2	3	4	5
g) Minimize crossing cropland	1	2	3	4	5
h) Minimize crossing forested land	1	2	3	4	5
i) Minimize crossing pasture/open land	1	2	3	4	5
j) Minimize total length of line and number of angles (reducing the total cost)	1	2	3	4	5
k) Minimize historic/cultural sites	1	2	3	4	5
l) Minimize federal and state lands/easement	1	2	3	4	5
m) Maximize length along roads	1	2	3	4	5
n) Minimize number of private property/parcels crossed	1	2	3	4	5
o) Minimize utility (road, transmission line, etc.) crossings	1	2	3	4	5

3. If you would like to comment further on any of the above factors, or identify any other factors or issues that you feel should be considered, please use the space below or an additional sheet of paper.

We welcome any drawings, maps, or other information you may want to submit that could aid in our understanding of your concerns.

4. If you have a concern with a particular transmission line segment(s) shown on the maps, please indicate the segment number (only one per line please) and describe your concern.

Segment No.	Concern

NOTIFICATIONS

We plan to notify everyone who was invited to the Community Representative Forums of the final route selection. If there is anyone else you think we should notify, please provide their contact information below.

Name: _____ Phone: _____

Organization: _____

Address: _____

Email: _____

If taking the survey with you, please mail before August 22 to:

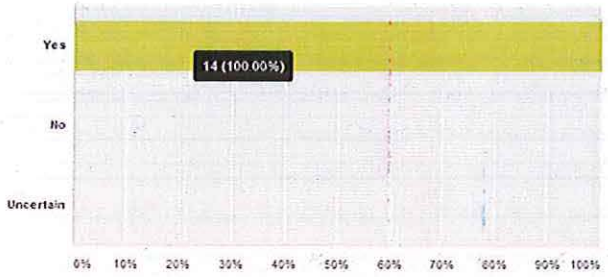
Ameren Transmission
Mark Twain Transmission Project
Attn: Jennifer Berry
9400 Ward Parkway
Kansas City, MO 64114

SCHEDULE CJW-01

CRF R1 Mark Twain Transmission Project

Do you believe the purpose/need for this transmission line has been explained adequately?

Answered: 14 Skipped: 0



The routing of a transmission line involves many considerations. From the list of routing factors below, please circle the number corresponding to the level of importance of that factor to you.

Answer Options	Not Important	---	Somewhat Important	---	Most Important	Rating Average	Response Count
a) Maximize distance from homes	0	1	2	4	7	4.21	14
b) Maximize distance from commercial/industrial	0	4	3	4	3	3.43	14
c) Maximize distance from public facilities (e.g.	0	1	1	5	7	4.29	14
d) Maximize length along property or section lines	0	5	3	2	3	3.23	13
e) Minimize the total number of poles by selecting the	0	4	3	4	3	3.43	14
f) Minimize crossing wetlands, floodplains and	0	2	8	1	3	3.36	14
g) Minimize crossing cropland	1	1	4	4	4	3.64	14
h) Minimize crossing forested land	2	4	4	2	2	2.86	14
i) Minimize crossing pasture/open land	2	4	2	4	2	3.00	14
j) Minimize total length of line and number of angles	0	2	6	4	2	3.43	14
k) Minimize historic/cultural sites	0	2	6	2	4	3.57	14
l) Minimize federal and state lands/easement	1	5	3	4	1	2.93	14
m) Maximize length along roads	1	2	5	3	3	3.36	14
n) Minimize number of private property/parcels	0	2	6	3	3	3.50	14
o) Minimize utility (road, transmission line, etc.)	0	5	4	4	1	3.07	14
						answered question	14
						skipped question	0

SCHEDULE CJW-01

July 14, 2014

RE: An Invitation to Attend a Mark Twain Transmission Project Open House

Dear Property Owner,

Ameren Transmission Company of Illinois (ATXI) is planning to build a 345,000-volt transmission line in northeast Missouri along with a new substation near Kirksville. Known as the Mark Twain Transmission Project, it consists of two line segments (Palmyra to Kirksville, and Kirksville to the Iowa border) totaling approximately 100 miles. The project will benefit Missouri and the region by improving overall electric system reliability and efficiency, while increasing access to lower-cost energy sources, including renewable resources such as wind energy.

You are receiving this letter because your property has been identified as being within 2,500 feet of a proposed route option for this transmission line, as shown on the enclosed map. We invite you to join us at one of our three public open houses, where we will provide a project overview, answer your questions and collect public input for the routing process. As each event covers the same material, you may attend the event most convenient to you. Refreshments will be provided.

All open houses are from 4:00 p.m. – 7:00 p.m.

The open houses are informal—you are welcome to attend anytime during the hours listed. Project team members will be available to answer your questions and provide additional information about the project.

Tuesday, Aug. 5	Wednesday, Aug. 6	Thursday, Aug. 7
El Kadir Shrine Club	Heartland Ozark Lodge & Steakhouse	American Legion Hall Post 174
2401 S. Baltimore	400 New Creation Rd. North	600 Short Street
Kirksville, MO 63501	Newark, MO 63458	Palmyra, MO 63461

After considering the information provided by the public and other stakeholders, ATXI will narrow the route options and present the final options at a second round of open houses tentatively scheduled in October 2014. A final route is expected to be selected by December 2014.

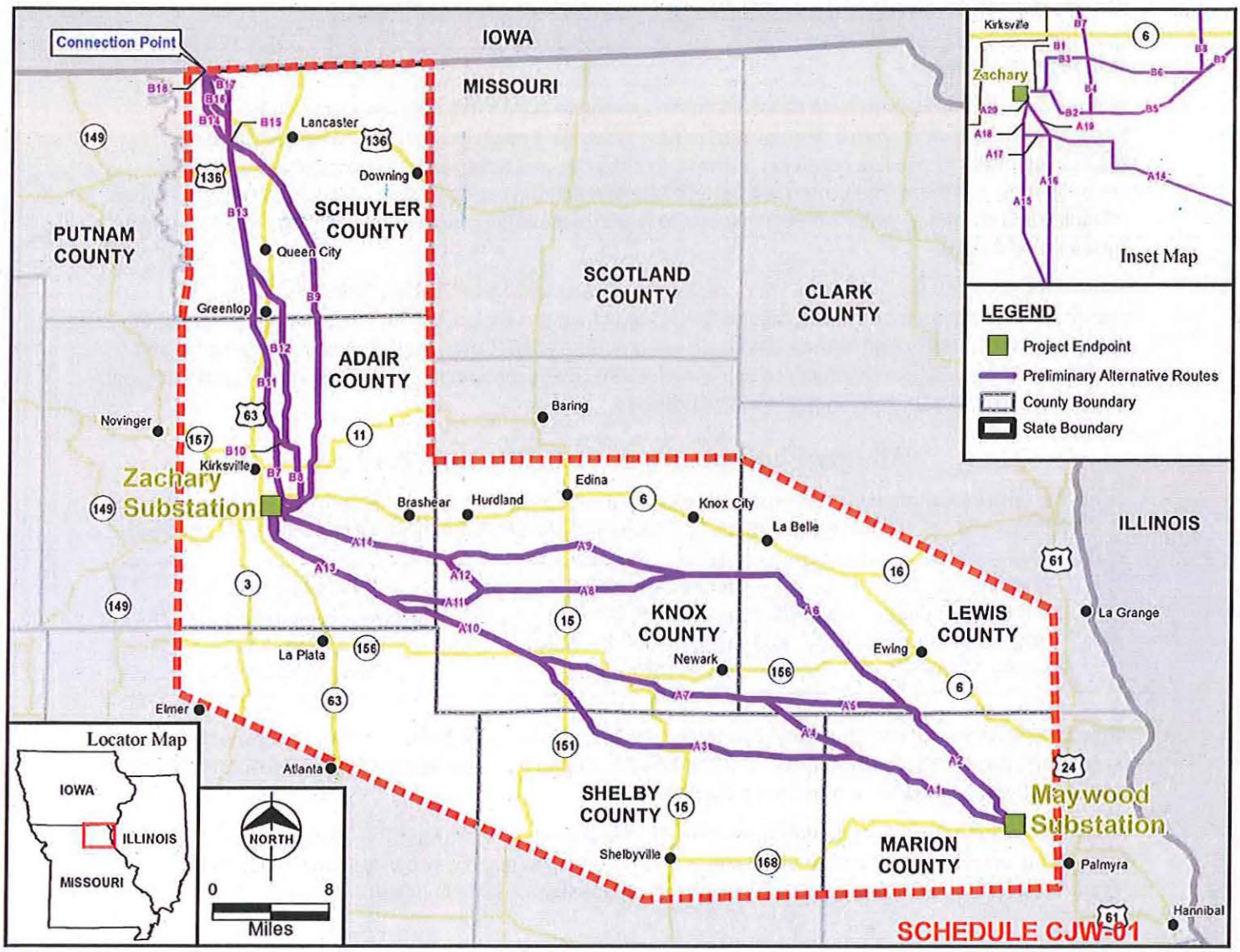
Maps and additional information will be available on the project website (MarkTwainTransmission.com) the week of the open houses. If you have questions prior to the open houses, you may send us an email (MarkTwainTransmission@ameren.com) or call our toll-free information line (888.340.6640).

Sincerely,

Peggy L. Ladd

Peggy L. Ladd
Director, Ameren Transmission Stakeholder Relations

SCHEDULE CJW-01


Connection Point
IOWA
MISSOURI
ILLINOIS
PUTNAM COUNTY
SCHUYLER COUNTY
ADAIR COUNTY
SCOTLAND COUNTY
CLARK COUNTY
KNOX COUNTY
LEWIS COUNTY
SHELBY COUNTY
MARION COUNTY
Zachary Substation
Maywood Substation
Lancaster
Downing
Queen City
Greentop
Novinger
Kirksville
Baring
Brashear
Hurdland
Edina
Knox City
La Belle
La Grange
Ewing
Newark
La Plata
Elmer
Atlanta
Shelbyville
Palmyra
Hannibal
Inset Map
LEGEND
Project Endpoint
Preliminary Alternative Routes
County Boundary
State Boundary
Locator Map
NORTH
0
8
Miles
SCHEDULE CJW-01

PROJECT SCHEDULE

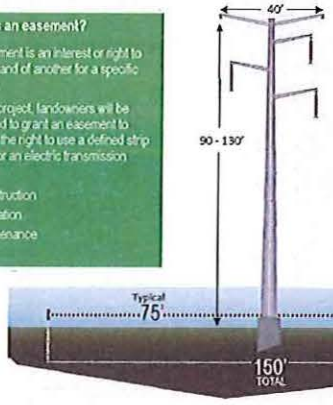
STRUCTURE DESIGN AND EASEMENT

What is an easement?

An easement is an interest or right to use the land of another for a specific purpose.

For this project, landowners will be requested to grant an easement to ATXI for the right to use a defined strip of land for an electric transmission line's:

- Construction
- Operation
- Maintenance



Typical Structure Measurements

Structure Type	Single shaft steel poles
Foundation	Concrete pier
Height Range	90 - 130 feet (typical)
Span Length	650 feet (average)
Structures per Mile	6 - 7 (average)
Conductor Clearance	Minimum 25 feet
Foundation Dimension	7 - 10 feet (typical)
Easement Width	150 feet

NEED MORE INFORMATION OR HAVE COMMENTS?

MarkTwainTransmission.com
MarkTwainTransmission@ameren.com
888.340.6640
Toll free

Mark Twain Transmission Project • c/o Burns & McDonnell—Jennifer Berry • 9400 Ward Parkway • Kansas City, MO 64114

Open House Handout

MARK TWAIN TRANSMISSION PROJECT

PROJECT OVERVIEW

Ameren Transmission Company of Illinois (ATXI) is planning to build a 345,000 volt transmission line in northeast Missouri, along with a 345,000 volt substation near Kirksville. Known as the Mark Twain Transmission Project, it consists of two line segments, from Palmyra to Kirksville, and Kirksville to the Iowa border, totaling approximately 100 miles. The Project is part of improvements to the regional transmission "grid" that were approved by the Midcontinent Independent System Operator (MISO) in 2011 and are known as Multi-Value Projects (MVP).

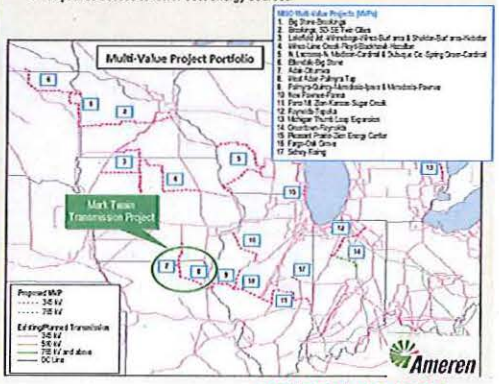
PROJECT BENEFITS

- Improves electric system reliability
- Supports the local economy by providing construction jobs
- Improves access to renewable energy sources
- Improves access to lower-cost energy by reducing transmission congestion

MULTI-VALUE PROJECT (MVP)

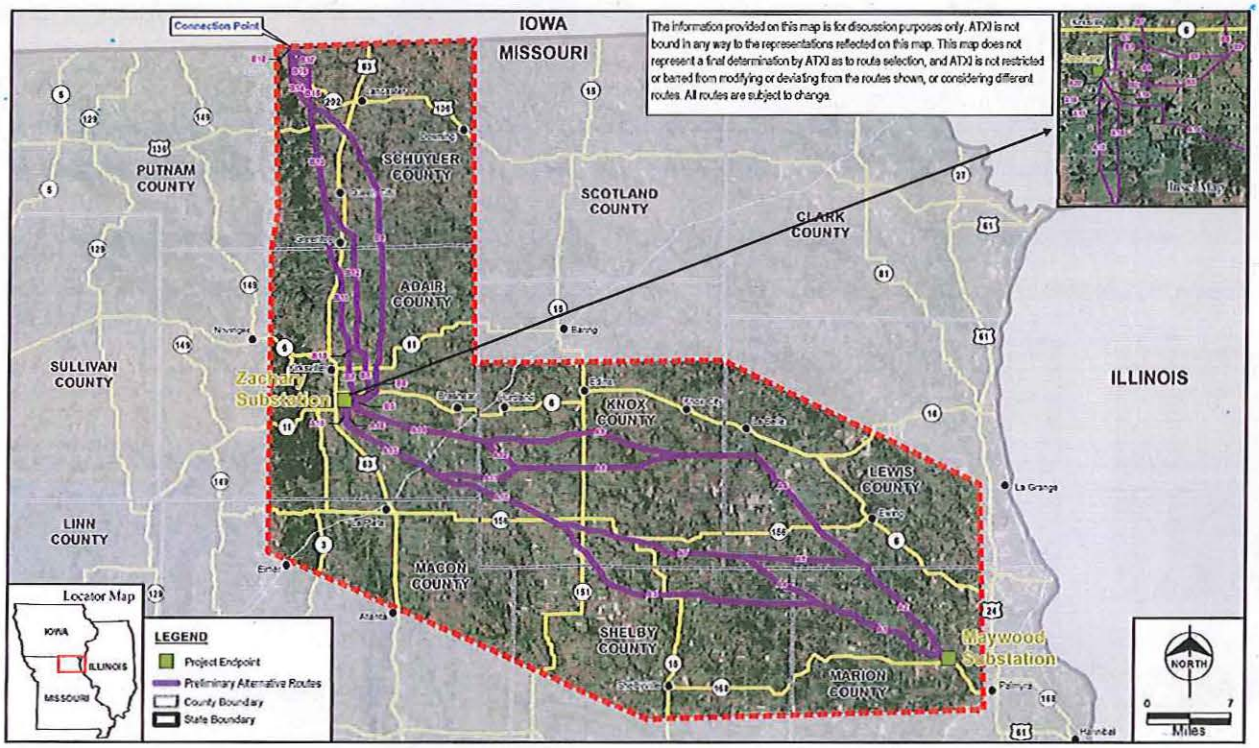
The **Midcontinent Independent System Operator** (MISO) exists to provide an efficient regional energy market, foster wholesale electric competition, and coordinate regional planning. The Mark Twain Transmission Project was identified as an MVP because it:

- Facilitates the delivery of renewable energy needed to meet the Missouri Renewable Electricity Standard (MoRES).
- Improves access to lower-cost energy sources.



SCHEDULE CJW-01

MARK TWAIN TRANSMISSION LINE ROUTE ALTERNATIVES (as of July 2014)



EXAMPLES OF ROUTING CRITERIA: (Not in order of importance)

- Agricultural lands
- Airports and restricted airspace
- Archaeological and historic sites
- Cemeteries
- Commercial use areas
- Communication towers
- Conservation lands and easements
- Daycares
- Development
- Floodplains
- Forests
- Geologically sensitive areas
- Grasslands and prairie
- Hospitals and assisted living facilities
- Missouri DNR lands
- Industrial areas
- Levees
- Mines/quarries
- Nature preserves
- Protected species/habitats
- Recreational areas
- Religious facilities
- Residences and residential use areas
- Scenic highways and trails
- Schools
- Streams and other water bodies
- Wells
- Wetlands

SCHEDULE CJW-01

Mark Twain Transmission Project - QUESTIONNAIRE

Please complete this after you have reviewed the information presented today. If you prefer, you can complete this online at (MarkTwainTransmission.com) on the Public Input page.

This questionnaire is designed to help you identify issues related to the routing of a proposed 345,000 volt transmission line from ATXI's proposed Maywood Substation (near Palmyra, Missouri) to ATXI's proposed Zachary Substation (near Kirksville, Missouri) and on to the Iowa border. Your answers will help the study team understand public interests and concerns and will allow the team to incorporate this information in the route selection process. Thank you for your input.

1. **Which open house did you attend?**

☐ Tuesday, August 5th in Kirksville ☐ Thursday, August 7th in Palmyra

☐ Wednesday, August 6th in Newark ☐ I did not attend an open house

PROJECT NEED

2. Do you believe the purpose/need for this transmission line has been explained adequately?

☐ Yes ☐ No ☐ Uncertain

If "no" or "uncertain," what additional information would be helpful to you?

_____

LINE ROUTING CONSIDERATIONS

3. The routing of a transmission line involves many considerations. From the list of routing factors below, please circle the number corresponding to the level of importance of that factor to you.

	Rating				
Factor	Not Important	.....	Somewhat Important	.....	Most Important
a) Maximize distance from homes	1	2	3	4	5
b) Maximize distance from commercial/industrial facilities/businesses	1	2	3	4	5
c) Maximize distance from public facilities (e.g. schools, parks, churches, cemeteries, etc.)	1	2	3	4	5
d) Maximize length along property or section lines	1	2	3	4	5
e) Minimize the total number of poles by selecting the most direct route	1	2	3	4	5
f) Minimize crossing wetlands, floodplains and streams/rivers	1	2	3	4	5
g) Minimize crossing cropland	1	2	3	4	5
h) Minimize crossing forested land	1	2	3	4	5
i) Minimize crossing pasture/open land	1	2	3	4	5
j) Minimize total length of line and number of angles (reducing the total cost)	1	2	3	4	5
k) Minimize historic/cultural sites	1	2	3	4	5
l) Minimize federal and state lands/easement	1	2	3	4	5
m) Maximize length along roads	1	2	3	4	5
n) Minimize number of private property/parcels crossed	1	2	3	4	5
o) Minimize utility (road, transmission line, etc.) crossings	1	2	3	4	5

SCHEDULE CJW-01

4. If you would like to comment further on any of the above factors, or identify any other factors or issues that you feel should be considered, please use the space below or an additional sheet of paper.

_____

_____

5. If you have a concern with a particular transmission line segment(s) shown on the display of potential routes, please indicate the segment number (only one per line please) as labeled on the maps and describe your concern.

Segment No.	Concern
_____	_____
_____	_____
_____	_____
_____	_____

ADDITIONAL INFORMATION

6. Do you have any current easements/options on your property? ☐ Yes ☐ No ☐ I don't know

If yes, what type (land sale, wind turbine, power line, etc.): _____

7. Which of the following applies to your situation (check all that apply)?

☐ a. Potential line route is near my home.

☐ b. Potential line route is near my farm or business.

☐ c. Not affected by potential route.

☐ d. Other, please specify _____

8. Do you believe the public open house format and the information provided was helpful for your understanding of the project?

OPEN HOUSE FORMAT:	☐ Helpful	☐ Not helpful
INFORMATION PROVIDED:	☐ Helpful	☐ Not helpful

9. OPTIONAL: If you would like to be notified once the final route has been selected, please enter your name and address below. (Names and addresses are considered confidential.)

Name: _____ Phone: _____

Address: _____

_____

Email: _____

ADDITIONAL COMMENTS (Comments may also be left by voice mail by calling 1-888-340-6640 (toll-free)

_____

_____

_____

_____

_____

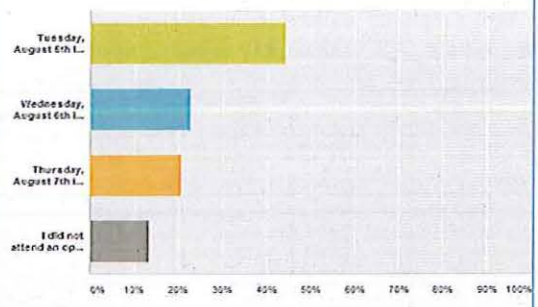
If taking the questionnaire with you, please mail completed questionnaires before August 22 to:

Ameren Transmission
Mark Twain Transmission Project
Attn: Jennifer Berry
9400 Ward Parkway
Kansas City, MO 64114

SCHEDULE CJW-01

Which open house did you attend?

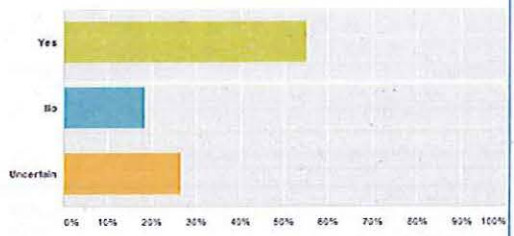
Answered: 256 Skipped: 7



Answer Choices	Responses	
Tuesday, August 5th in Kirksville	44.14%	113
Wednesday, August 6th in Newark	22.66%	58
Thursday, August 7th in Palmyra	20.70%	53
I did not attend an open house	13.28%	34
Total Respondents: 256		

Do you believe the purpose and need for this project has been adequately explained?

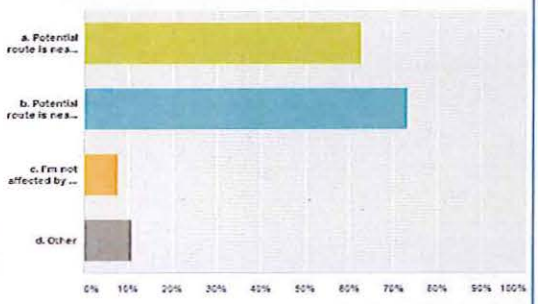
Answered: 245 Skipped: 18



Answer Choices	Responses	
Yes	55.10%	135
No	18.37%	45
Uncertain	26.53%	65
Total		245

Which of the following applies to your situation (check all that apply)?

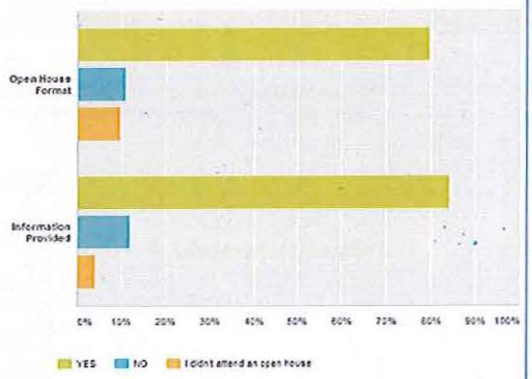
Answered: 230 Skipped: 33



Answer Choices	Responses	
a. Potential route is near my home	62.61%	144
b. Potential route is near my farm or business	73.04%	168
c. I'm not affected by a potential route	7.83%	18
d. Other	10.87%	25
Total Respondents: 230		

Do you believe the public open house format and the information provided was helpful for your understanding of the project?

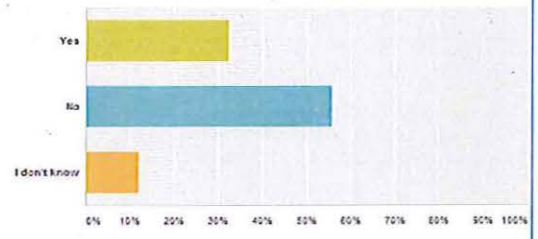
Answered: 229 Skipped: 34



	YES	NO	I didn't attend an open house	Total Respondents
Open House Format	73.48% 182	10.92% 25	9.61% 22	229
Information Provided	84.00% 169	11.94% 24	3.98% 8	201

Do you have any current easements/options on your property?

Answered: 223 Skipped: 35



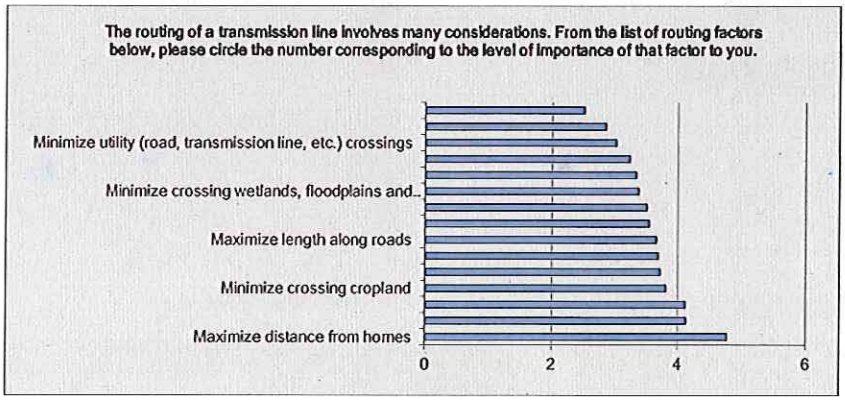
Answer Choices	Responses	
Yes	32.46%	74
No	55.70%	127
I don't know	11.84%	27
Total Respondents: 223		

SCHEDULE CJW-01

Mark Twain Transmission Project

The routing of a transmission line involves many considerations. From the list of routing factors below, please circle the number corresponding to the level of importance of that factor to you.

Answer Options	Not Important	---	Somewhat Important	---	Most Important	Rating Average	Response Count
Maximize distance from homes	4	2	6	22	206	4.77	240
Minimize number of private property/parcels crossed	9	11	49	39	130	4.13	238
Maximize distance from public facilities (e.g. schools, parks, churches, cemeteries, etc.)	14	10	41	42	131	4.12	238
Minimize crossing cropland	30	17	37	42	115	3.81	241
Maximize length along property or section lines	17	14	70	49	83	3.72	233
Minimize crossing forested land	19	30	48	49	92	3.69	238
Maximize length along roads	23	20	54	53	83	3.66	233
Minimize historic/cultural sites	21	20	65	63	64	3.55	233
Minimize crossing pasture/open land	32	16	64	47	77	3.51	236
Minimize crossing wetlands, floodplains and streams/rivers	35	34	57	34	80	3.38	240
Minimize the total number of poles by selecting the most direct route	41	22	60	36	73	3.34	232
Maximize distance from commercial/industrial facilities/businesses	42	28	57	47	60	3.24	234
Minimize utility (road, transmission line, etc.) crossings	44	33	72	40	44	3.03	233
Minimize total length of line and number of angles (reducing the total cost)	59	35	62	29	46	2.86	231
Minimize federal and state lands/easement	84	32	54	23	34	2.52	227
						answered question	252
						skipped question	11



SCHEDULE CJW-01

Invitation to Participate in the
Mark Twain Transmission Project
Community Representative Forum

Ameren Transmission Company of Illinois (ATXI) is planning to build a 345,000-volt transmission line in northeast Missouri along with a new substation near Kirksville. Known as the Mark Twain Transmission Project, it consists of two transmission line segments (Palmyra to Kirksville and Kirksville to the Iowa border) totaling approximately 100 miles. Find more information about the project at www.marktwaintransmission.com.

We will hold a second round of public open houses to present the remaining route options under consideration, as shown on the enclosed map. We will again solicit feedback from landowners and other stakeholders to assist us in determining the final route.

We invite you to attend any of the open houses. In addition, you are invited to attend a **Community Representative Forum (CRF)**. The purpose of the CRF is to encourage the participation of community representatives and to gain region-specific information that is vital to the routing process. As a participant, you will have the opportunity to preview the open houses and all of the stations, including the GIS stations, where you may log your comments in relation to the remaining route options.

Lunch will be provided at the CRFs. If you are unable to attend, you may designate a representative to attend in your place. Please select a date to attend below and RSVP by calling **1-888-340-6640** or by emailing **MarkTwainTransmission@ameren.com** by October 21st. Please indicate which forum date you plan to attend.

Community Representative Forums are from 11:30 a.m. – 1 p.m. (lunch provided with RSVP)
Open Houses are from 4 p.m. – 7 p.m. (refreshments provided)
The open houses are informal—the public is welcome to attend any time during the hours listed.

Tuesday, Oct. 28	Wednesday, Oct. 29	Thursday, Oct. 30
American Legion Hall Post 174	Heartland Ozark Lodge & Steakhouse	Fellowship Baptist Church
600 Short Street	400 New Creation Rd. North	1701 S. Jamison
Palmyra, MO 63461	Newark, MO 63458	Kirksville, MO 63501

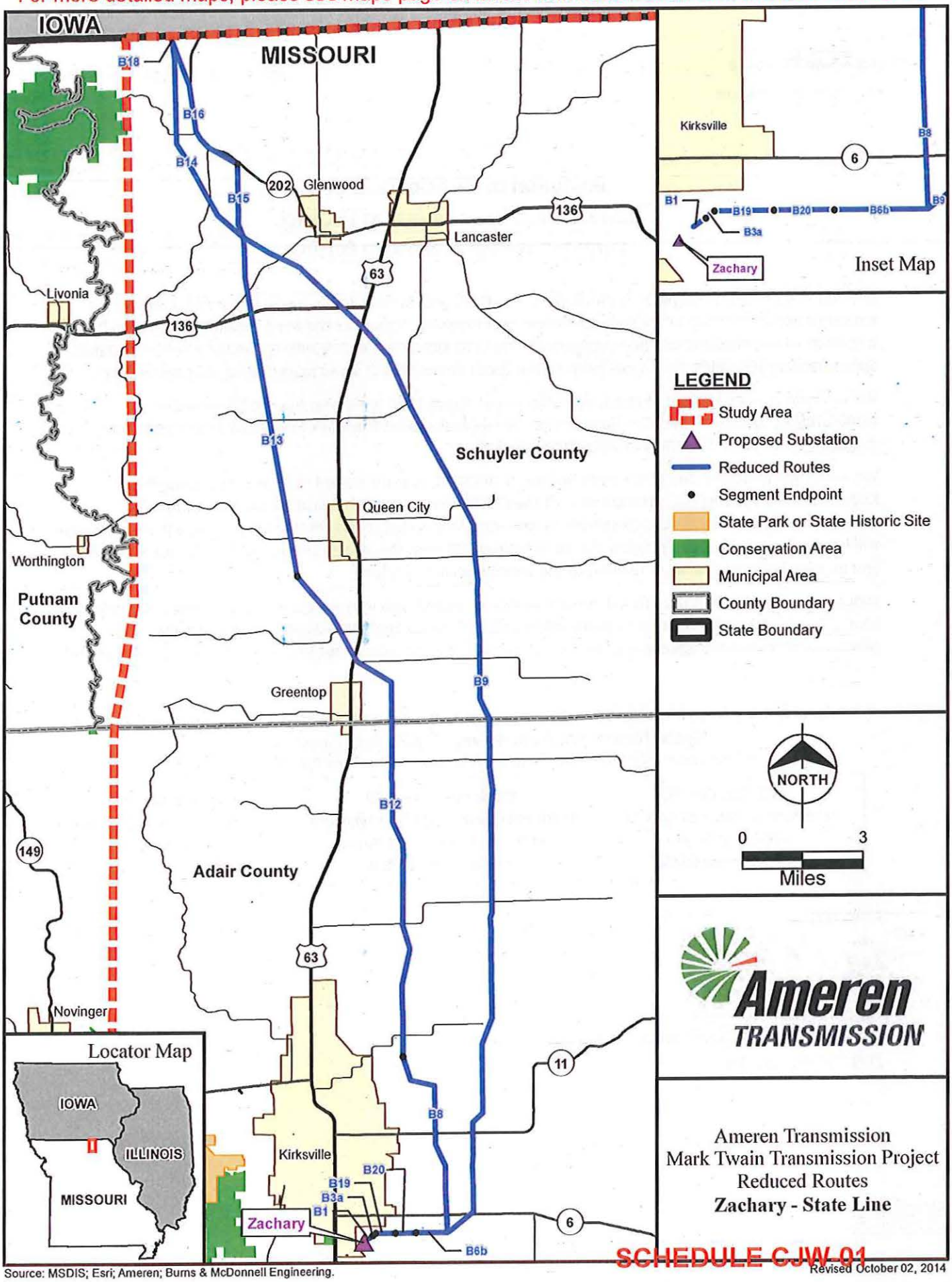
Sincerely,

Peggy L Ladd

Peggy L. Ladd
Director, Ameren Transmission Stakeholder Relations
PLADD@ameren.com

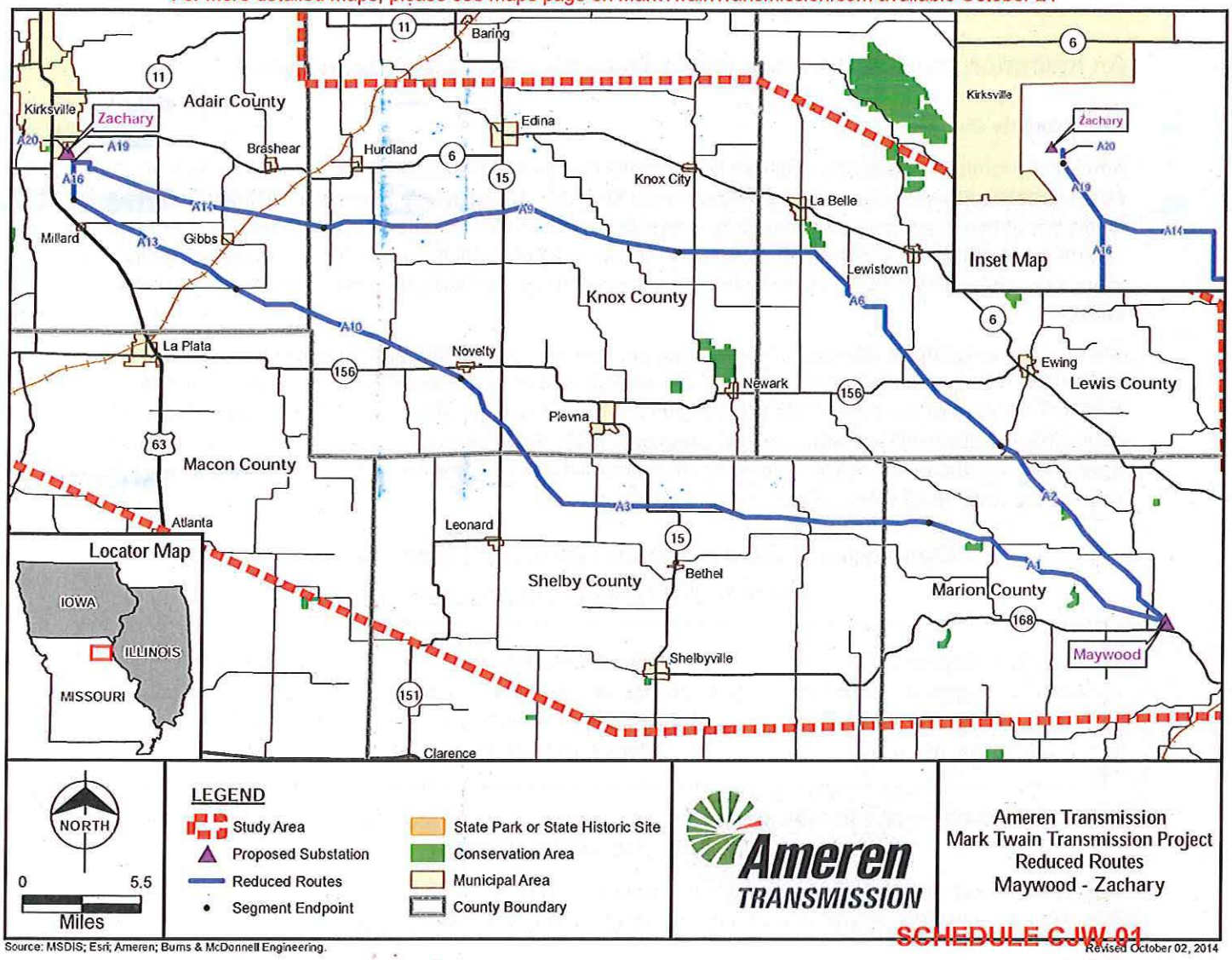
SCHEDULE CJW-01

For more detailed maps, please see maps page on MarkTwainTransmission.com available October 21st



Source: MSDIS; Esri; Ameren; Burns & McDonnell Engineering.

For more detailed maps, please see maps page on MarkTwainTransmission.com available October 21st



SCHEDULE CJW-01

Source: MSDIS; Esri; Ameren; Burns & McDonnell Engineering.

Revised October 02, 2014

October 6, 2014

An Invitation to Attend a Mark Twain Transmission Project Open House

Dear Property Owner,

Ameren Transmission Company of Illinois (ATXI) is planning to build a 345,000-volt transmission line in northeast Missouri as well as a new substation near Kirksville. Known as the Mark Twain Transmission Project, it consists of two line segments (Palmyra to Kirksville, and Kirksville to the Iowa border) totaling approximately 100 miles. The Project will benefit Missouri and the region by improving overall electric system reliability and efficiency, while enhancing access to lower-cost energy sources, including renewable resources such as wind energy.

We received a significant amount of input during our first round of public open houses in August 2014. We took this feedback into consideration during our analysis to narrow the route options, as shown on the enclosed maps. Since we have made adjustments to our routes, we strongly suggest you review the detailed maps on our website (**MarkTwainTransmission.com**), available October 21st. We will hold another series of open houses so the public can view these routes in more detail and so you can provide additional input. A final route is expected to be selected by the end of 2014.

Open houses are a come-and-go format from 4 p.m. – 7 p.m.
There will be no formal presentation.

Tuesday, Oct. 28	Wednesday, Oct. 29	Thursday, Oct. 30
American Legion Hall Post 174	Heartland Ozark Lodge & Steakhouse	Fellowship Baptist Church
600 Short Street	400 New Creation Rd. North	1701 S. Jamison
Palmyra, MO 63461	Newark, MO 63458	Kirksville, MO 63501

Each event covers the same material—you may attend the one most convenient for you. Refreshments will be provided.

If you have question prior to the open houses, you may send us an email (MarkTwainTransmission@ameren.com) or call our toll-free information line (888.340.6640).

Sincerely,

Peggy L. Ladd
Director, Ameren Transmission Stakeholder Relations

SEE BACK→

SCHEDULE CJW-01

If you are unable to view the project information online, information will also be available at the following locations:

Knox County Library
120 S. Main Street
Edina, MO 63537
660-397-2460

Palmyra Bicentennial
212 S. Main Street
Palmyra, MO 63461
573-769-2830

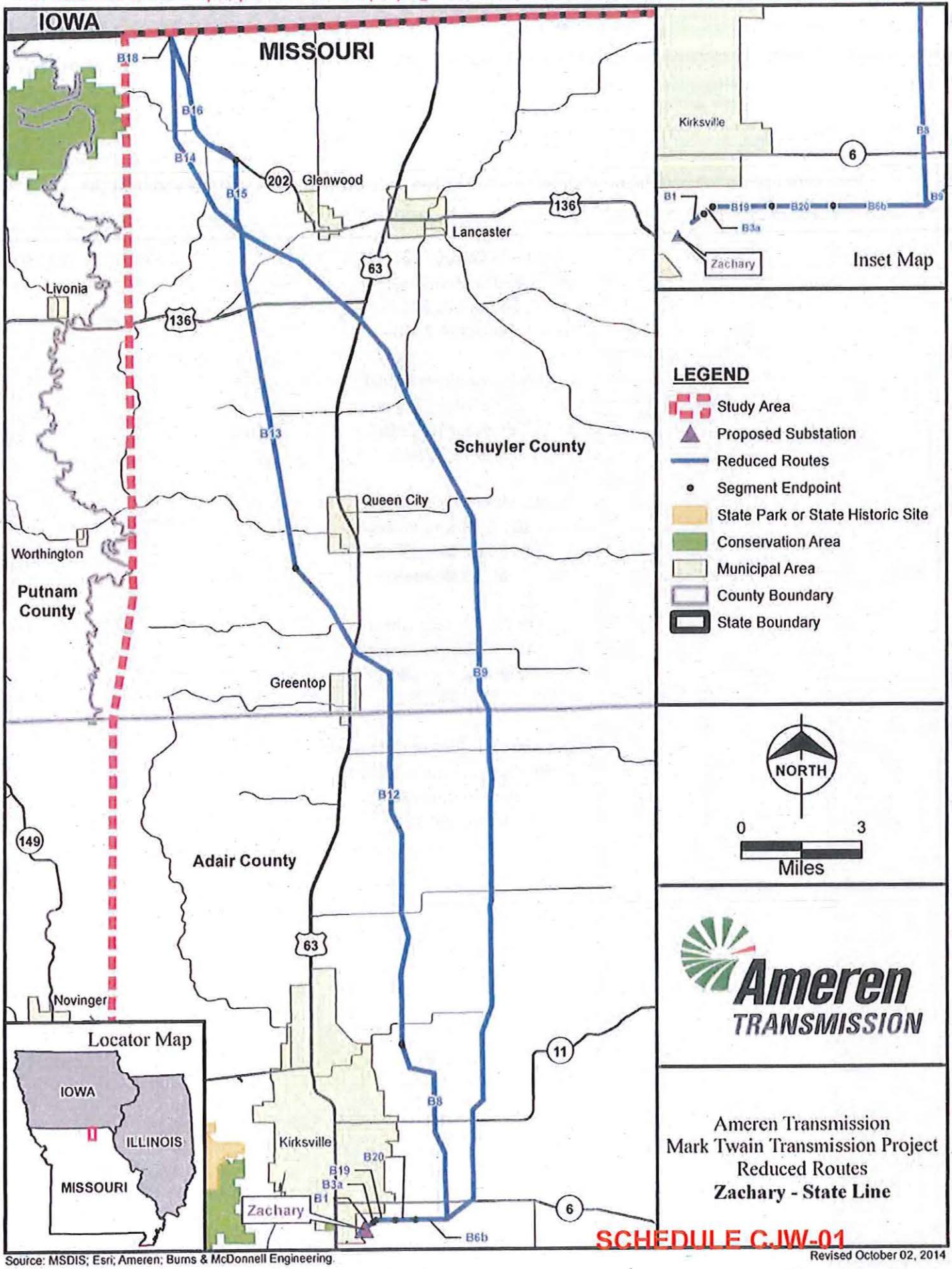
La Plata Public Library
103 E. Moore Street
La Plata, MO 63549
660-332-4945

Carnegie Public Library
102 N. Center Street
Shelbina, MO 63468
573-588-2271

Kirksville Chamber of Commerce
304 South Franklin Street
Kirksville, MO 63501
660-665-3766

SCHEDULE CJW-01

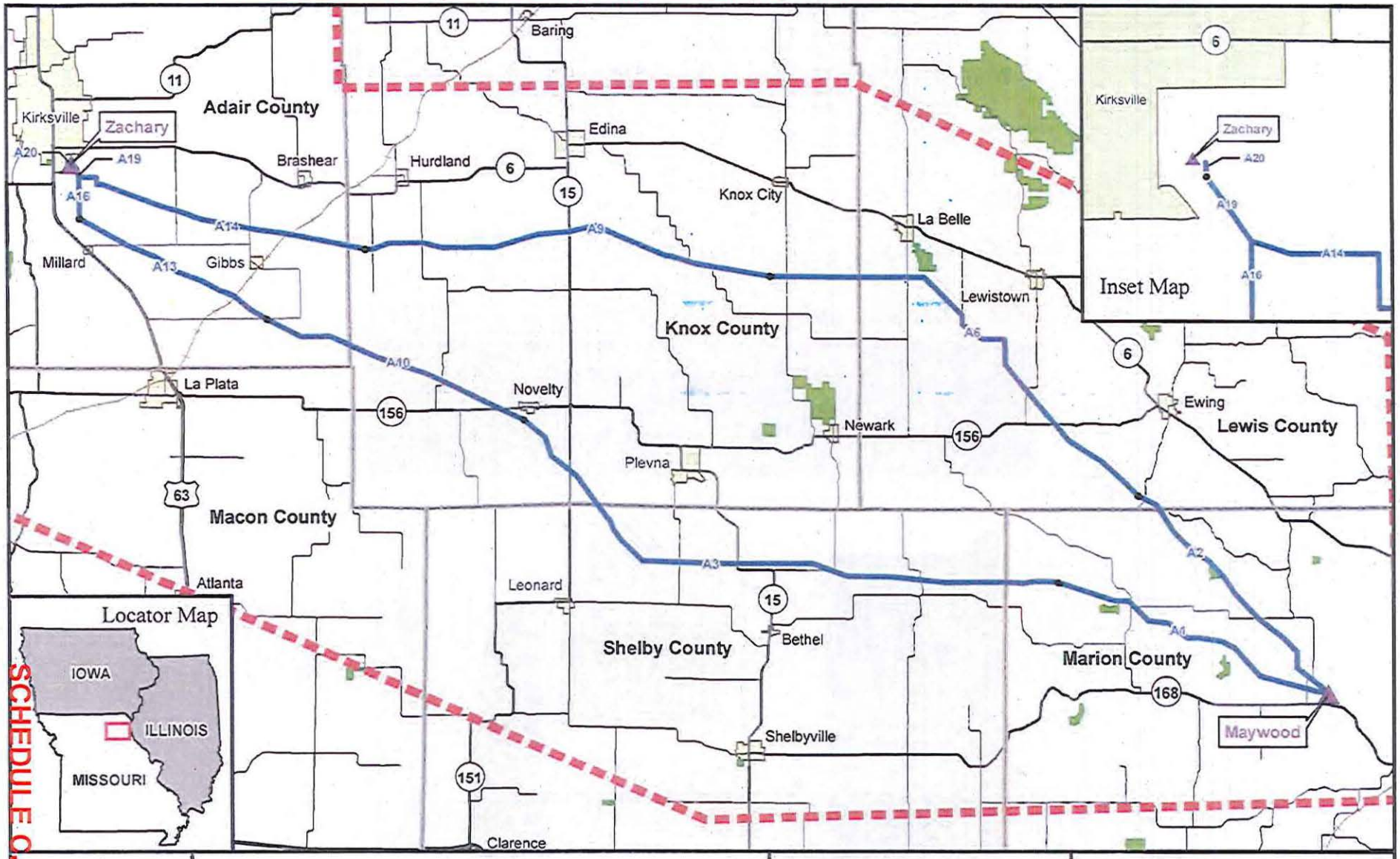
For more detailed maps, please see maps page on MarkTwainTransmission.com available October 21st.



Source: MSDIS; Esri; Ameren; Burns & McDonnell Engineering.

Revised October 02, 2014

For more detailed maps, please see maps page on MarkTwainTransmission.com available October 21st



Source: MSDIS; Esri; Ameren; Burns & McDonnell Engineering.

Revised October 02, 2014

PROJECT SCHEDULE

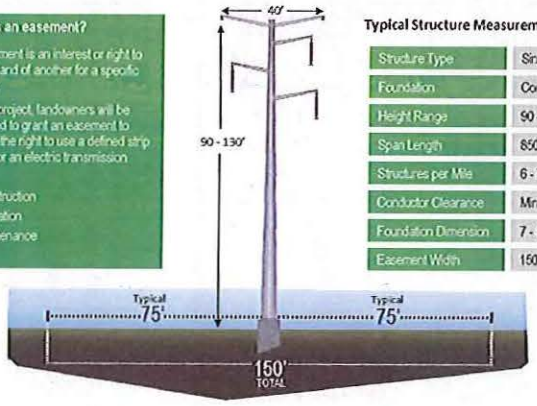
STRUCTURE DESIGN AND EASEMENT

What is an easement?

An easement is an interest or right to use the land of another for a specific purpose.

For this project, landowners will be requested to grant an easement to ATXI for the right to use a defined strip of land for an electric transmission line's:

- Construction
- Operation
- Maintenance



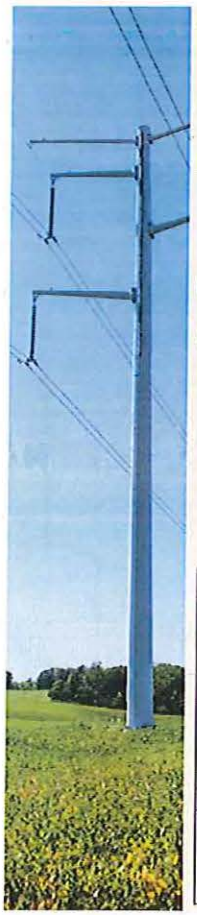
Typical Structure Measurements

Structure Type	Single shaft steel poles
Foundation	Concrete pier
Height Range	90 - 130 feet (typical)
Span Length	850 feet (average)
Structures per Mile	6 - 7 (average)
Conductor Clearance	Minimum 25 feet
Foundation Dimension	7 - 10 feet (typical)
Easement Width	150 feet

NEED MORE INFORMATION OR HAVE COMMENTS?

MarkTwainTransmission.com
MarkTwainTransmission@ameren.com
888.340.6640
Toll free

Mark Twain Transmission Project • c/o Burns & McDonnell—Jennifer Berry • 9400 Ward Parkway • Kansas City, MO 64114



Open House Handout—October 2014

MARK TWAIN TRANSMISSION PROJECT

PROJECT OVERVIEW

Ameren Transmission Company of Illinois (ATXI) is planning to build a 345,000 volt transmission line in northeast Missouri, along with a 345,000 volt substation near Kirksville. Known as the Mark Twain Transmission Project, it consists of two line segments, from Palmyra to Kirksville, and Kirksville to the Iowa border, totaling approximately 100 miles. The Project is part of improvements to the regional transmission "grid" that were approved by the Midcontinent Independent System Operator (MISO) in 2011 and are known as Multi-Value Projects (MVP).

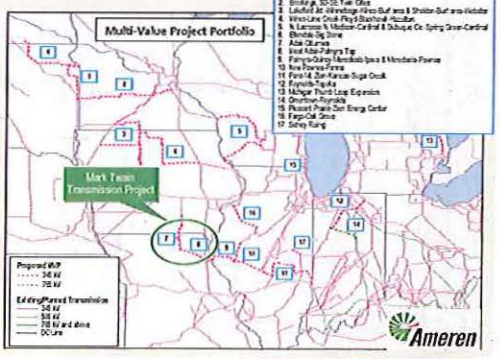
PROJECT BENEFITS

- Improves electric system reliability
- Supports the local economy by providing construction jobs
- Improves access to renewable energy sources
- Improves access to lower-cost energy by reducing transmission congestion

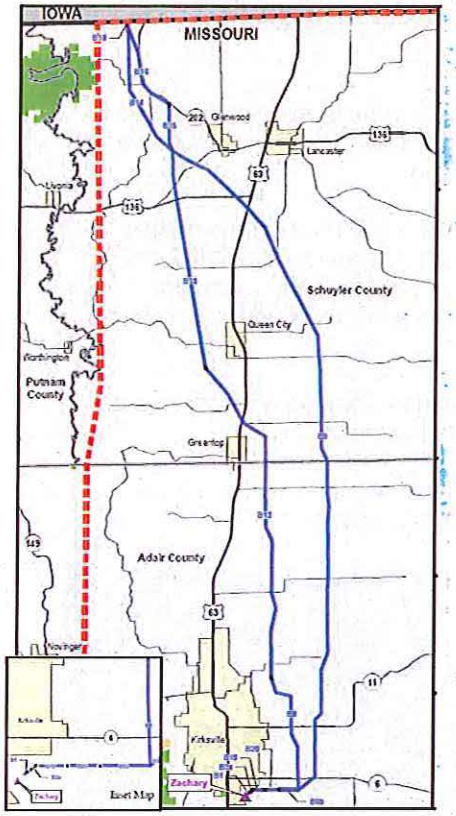
MULTI-VALUE PROJECT (MVP)

The **Midcontinent Independent System Operator** (MISO) exists to provide an efficient regional energy market, foster wholesale electric competition, and coordinate regional planning. The Mark Twain Transmission Project was identified as an MVP because it:

- Facilitates the delivery of renewable energy needed to meet the Missouri Renewable Electricity Standard (MoRES).
- Improves access to lower-cost energy sources.



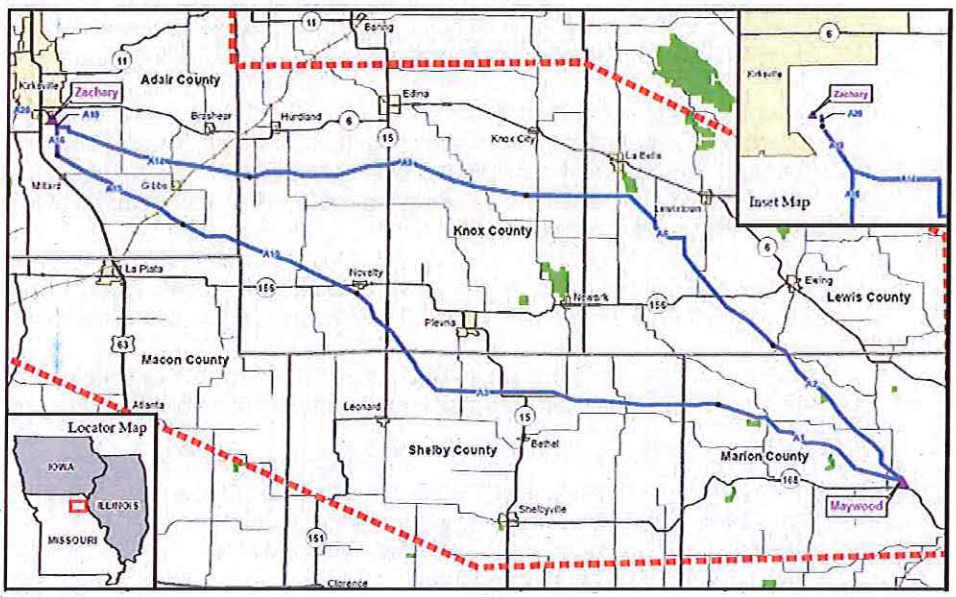
SCHEDULE CJW-01



MARK TWAIN TRANSMISSION LINE REDUCED ROUTE ALTERNATIVES (as of October 2014)

← Zachary to State Line

↓ Maywood to Zachary



The information provided on these maps is for discussion purposes only. ATXI is not bound in any way to the representations reflected on the maps. The maps do not represent a final determination by ATXI as to route selection, and ATXI is not restricted from modifying or deviating from the routes proposed, or considering new routes.

EXAMPLES OF ROUTING CRITERIA: (Not in order of importance)

- Agricultural lands
- Airports and restricted airspace
- Archaeological and historic sites
- Cemeteries
- Commercial use areas
- Communication towers
- Conservation lands and easements
- Daycares
- Development
- Floodplains
- Forests
- Geologically sensitive areas
- Grasslands and prairie
- Hospitals and assisted living facilities
- Missouri DNR lands
- Industrial areas
- Levees
- Mines/quarries
- Nature preserves
- Protected species/habitats
- Recreational areas
- Religious facilities
- Residences/residential use areas
- Scenic highways and trails
- Schools
- Streams and other water bodies
- Wells
- Wetlands

SCHEDULE CJW-01

The Truth about the Mark Twain Transmission Project

Ameren Transmission Company of Illinois (ATXI) plans to build a 345,000 volt transmission line in northeast Missouri, along with a 345,000 volt substation near Kirksville. Known as the Mark Twain Transmission Project, it consists of two line segments, from Palmyra to Kirksville, and Kirksville to the Iowa border. The total length is approximately 100 miles. The Project will be part of a new transmission line running from Indiana to Iowa with multiple connected locations, including two in Missouri, to deliver energy and improve reliability.

- **A need for delivering renewable energy to you**—Missouri law requires utilities to provide greater amounts of renewable energy. To help meet this need, the Midwest region's transmission system operator developed an electricity grid improvement plan, including the Mark Twain Transmission Project, to provide the transmission capacity needed to promote the development and delivery of renewable energy.

- **Greater reliability**—From communications and transportation to manufacturing, virtually every aspect of our society depends not just on electricity, but on a reliable supply of electricity. The Mark Twain Transmission Project will improve reliability by strengthening the Midwestern transmission grid.

- **Job creation and economic benefits**—It is anticipated that construction of the Mark Twain Transmission Project will create 200 good, well-paying jobs. A study released on Sept. 30, 2014, also found the economic benefit of the regional transmission plan to Missouri will be 2.3 to 3.3 times the transmission investment. Missouri electric customers all along the route will benefit from the availability of electricity transported on the Mark Twain Transmission Project line.

- **No one source of power**—The power carried by the Mark Twain Transmission Project line will not come from any one source, but from any and all electric generation sources connected to the Midwest grid.

- **A cleaner environment**—In its Sept. 30, 2014 study, the regional transmission operator found its plan will reduce carbon emissions from electric generating units by 9 to 15 million tons annually.

- **Compatible with farming**—The Mark Twain Transmission Project will utilize single-shaft, steel poles that do not require guy wires. Farmers can continue to use land under the transmission line for crops and pasture. Our goal is to minimize the impact on agriculture.

- **Acquiring easements**—The Mark Twain Transmission Project will be built on an easement 150 feet in width. Landowners will be contacted by project representatives for the purpose of establishing a fair market price to be paid for the easement through good-faith negotiations with a goal of reaching agreements with each landowner. ATXI will only use the process of eminent domain as a last resort when all efforts to reach a negotiated price fail.

- **Fair compensation for transmission line impact**—Landowners are fully compensated for the impact of the transmission line. ATXI's offer of compensation for the easement is intended to "make the landowners whole" by fully compensating them for any effect on the market value of their property caused by the imposition of the easement. Upon completion of construction, ATXI's representatives assess, and, if necessary, repair or compensate landowners for damages that may result from construction of the transmission line. This includes damages to crops, soil, fences, and other property or improvements. In most cases, ATXI will offer landowners an advance payment (at the time of easement payment) for anticipated crop loss and reparation of crop land immediately following construction.

SCHEDULE CJW-01

- **An exclusive easement**—The easement granted to ATXI for the Mark Twain Transmission Project will be for ATXI's use of the transmission line. Others, including pipelines, wishing to use the area occupied by ATXI's easement would need to acquire a separate easement from the landowner, assuming the new easement does not interfere with ATXI's rights for the transmission line facilities.

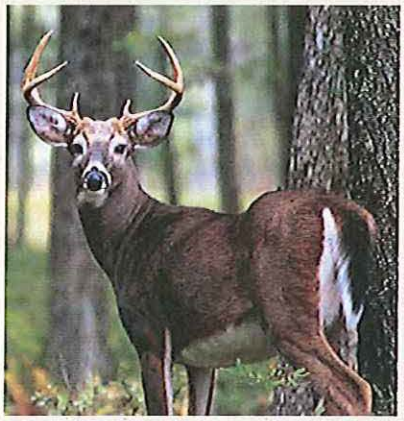
- **No tax money**—No federal, state or local tax monies will be used to build, operate or maintain this transmission line. This transmission line will be built, operated and maintained by ATXI, a wholly-owned subsidiary of St. Louis-based Ameren Corporation.

- **Explaining electromagnetic fields**—Electromagnetic fields (EMFs) are generated by anything that uses or conducts electricity. Some typical sources of EMFs in homes include refrigerators, microwave ovens, vacuum cleaners, hair dryers, video display monitors and fluorescent lamps to name just a few. EMFs have been in homes, businesses and factories since the dawn of the age of electricity.

  Based on a recent in-depth review of the scientific literature, the World Health Organization (WHO) concluded that current evidence does not confirm the existence of any health consequences from exposure to low level EMFs. Furthermore, it is clear that the exposure to EMFs of people living in the vicinity of high voltage power lines differs very little from the average exposure of the entire population. Studies have also found no adverse effect on crops or farm animals, including cattle that graze below power lines. It should be noted that electrical equipment used on farms and other agricultural settings produce EMFs.

- **Compatible with hunting**—The Mark Twain Transmission Project will not interfere with hunting. According to the University of Michigan, "White -tailed deer prefer forest edges that are close to farmlands, old fields, and brushland." Thus, deer populations tend to do well where transmission lines border wooded areas. Ameren has also fostered a relationship with the National Wild Turkey Federation to improve turkey habitats in rights of way.

- **How experts view the property value impact**—Various peer-reviewed, published studies have found that transmission lines have little effect on most property values.



OH Code: _____

Ameren TRANSMISSION

MARK TWAIN TRANSMISSION PROJECT
REDUCED ROUTE NETWORK - QUESTIONNAIRE

This questionnaire helps us to identify issues and concerns related to the routing of the Mark Twain Transmission Project from ATXI's proposed Maywood Substation (near Palmyra, Missouri) to ATXI's proposed Zachary Substation (near Kirksville, Missouri) and on to the Iowa border.

Please complete this questionnaire <u>after</u> you have reviewed the information presented in the meeting today.
All comments are to be received by November 10, 2014.

PROJECT INTRODUCTION

1. Which open house did you attend:

☐ I did not attend an open house
☐ Tuesday, October 28th in Palmyra
☐ Wednesday, October 29th in Newark
☐ Thursday, October 30th in Kirksville

2. How did you hear about the open house? (Please check all that apply)

☐ a. Newspaper
☐ b. Radio
☐ c. Letter
☐ d. Neighbor/Friend
☐ e. Internet/e-mail
☐ f. Other (please explain)_____

3. Did you attend any of the first round of public open houses (preliminary route options) in August?

☐ a. Yes
☐ b. No, I have not attended any previous open houses

STAKEHOLDER IMPACT

4. Which of the following applies to your situation? (Please check all that apply)

☐ a. Potential line route is near my home.
☐ b. Potential line route is near or crosses my farm or business.
☐ c. Generally concerned about the Project.
☐ d. Other, please specify _____

LINE ROUTING CONSIDERATIONS

5. Do you have any current easements/leases on your property? ☐ YES ☐ NO

If yes, what type (land sale, wind turbine, power line, etc.): _____

OVER →

SCHEDULE CJW-01

6. **Please identify which segment(s) you have concerns with and why? Only <u>one segment per line</u> please—***segment numbers are indicated on the route maps.*

Segment No.	Comments

ROUTE MODIFICATIONS TO CONSIDER FOR YOUR PROPERTY

7. **If the line segment on your property was selected, are there any changes or adjustments on your property to the proposed route that you would like for us to consider?**

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

OPTIONAL: Please enter your name and address below to help us relate comments specifically to your property. (Names and addresses are confidential.)

Name _____ Phone _____

Address _____

_____

Email: _____

☐ Please add my name to the project mailing list and contact me by (circle one) **e-mail** or **regular mail**.

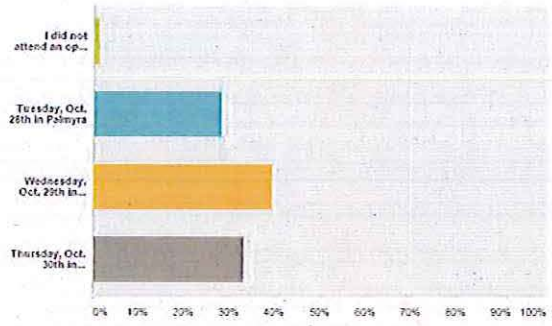
We encourage you to fill out and submit your questionnaire at the meeting or electronically on our project website: *MarkTwainTransmission.com*. If taking the questionnaire with you, please mail completed questionnaire **before November 10** to:

Mark Twain Transmission Project
Attn: Jennifer Berry
Burns & McDonnell
9400 Ward Parkway
Kansas City, MO 64114

SCHEDULE CJW-01

Which open house did you attend?

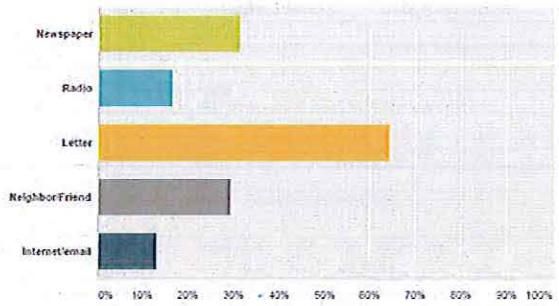
Answered: 100 Skipped: 2



Answer Choices	Responses	
I did not attend an open house	1.25%	2
Tuesday, Oct. 28th in Palmyra	28.13%	45
Wednesday, Oct. 29th in Newark	39.38%	63
Thursday, Oct. 30th in Kirkaville	33.13%	53
Total Respondents: 100		

How did you hear about the open house (check all that apply)?

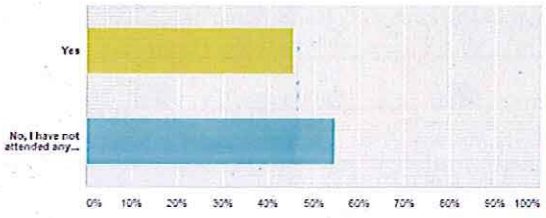
Answered: 154 Skipped: 8



Answer Choices	Responses	
Newspaper	31.17%	48
Radio	16.23%	25
Letter	64.29%	99
Neighbor/Friend	29.22%	45
Internet/email	12.99%	20
Total Respondents: 154		

Did you attend any of the first round of open houses (preliminary route options) in August?

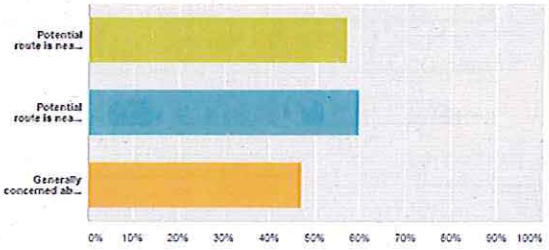
Answered: 157 Skipped: 5



Answer Choices	Responses	
Yes	45.22%	71
No, I have not attended any previous open houses	54.78%	86
Total		157

Which of the following applies to your situation (please check all that apply)?

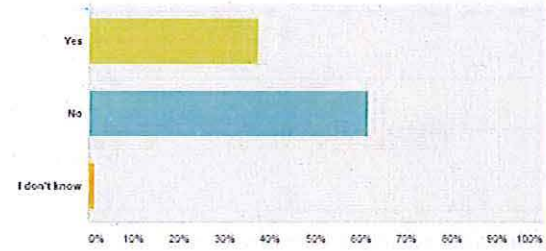
Answered: 149 Skipped: 13



Answer Choices	Responses	
Potential route is near my home.	57.05%	85
Potential route is near or crosses my farm or business.	59.73%	89
Generally concerned about the project.	46.98%	70
Total Respondents: 149		

Do you have any current easements/leases on your property?

Answered: 153 Skipped: 9



Answer Choices	Responses	
Yes	37.25%	57
No	61.44%	94
I don't know	1.31%	2
Total		153

SCHEDULE CJW-01

February 6, 2015

<Owner Name & Address>

Dear Property Owner,

Ameren Transmission Company of Illinois (ATXI) is planning to build a 161,000-volt connector transmission line (Project), approximately 2.5 miles long, which will connect from the existing Adair Substation to the new Zachary substation in Kirksville, Missouri. We would like to have a one-on-one conversation with you on **Wednesday, February 25th** about this line, and provide an opportunity for you to ask questions about the Project, including how it could affect you. The enclosed map shows the two options that we are considering; however, only one of these routes will be selected. The final route will be built on an easement 100 feet in width, which ATXI hopes to establish through good-faith negotiations with landowners.

Please choose a preferred time frame on the response card enclosed, provide your contact information, and return it by February 12th. A Project team member will then call you to schedule your one-hour appointment. The appointments will be held at:

Days Inn
3805 S. Baltimore
Kirksville, MO 63501

If you are unable to attend a scheduled personal appointment, we will also be holding an open house on Thursday, February 26th at the Days Inn, where you can stop by anytime between 10 a.m. and Noon. Information about the Project and an opportunity to provide comments will also be available on the website (www.marktwaintransmission.com) starting February 10th.

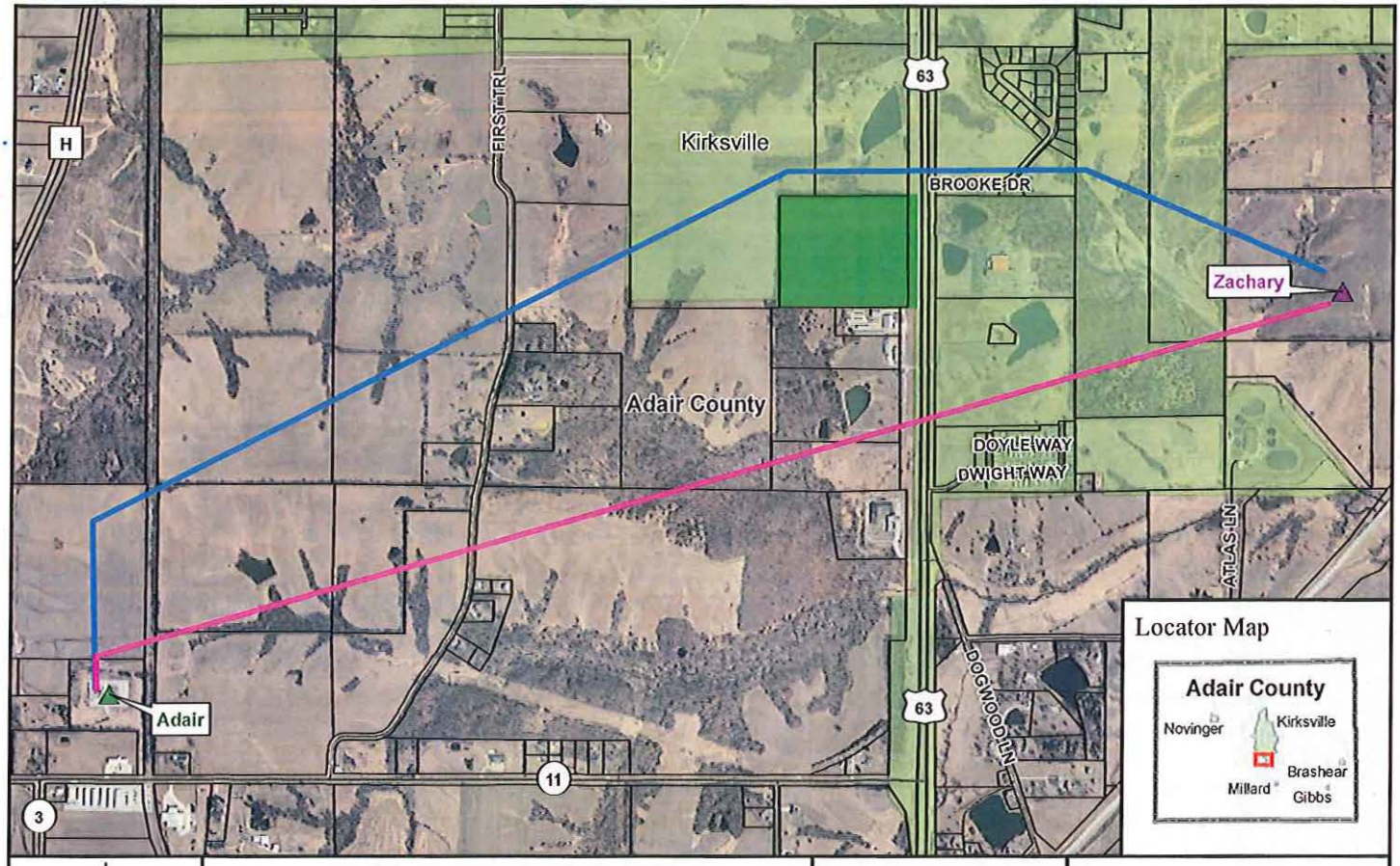
If you have any questions, feel free to contact our team via email (MarkTwainTransmission@ameren.com) or leave a message on our toll-free information line (888.340.6640). A project team member will respond to your email or return your call.

Sincerely,

Peggy L. Ladd

Peggy L. Ladd
Director, Ameren Transmission Stakeholder Relations

SCHEDULE CJW-02


H
FIRST TRL
Kirksville
63
BROOKE DR
Zachary
Adair County
DOYLE WAY
DWIGHT WAY
ATLAS LN
DOGWOOD LN
Adair
11
3
Locator Map
Adair County
Novinger
Kirksville
Millard
Brashear
Gibbs
NORTH
0
1,200
Feet
LEGEND
Zachary-Adair Option 1
Zachary-Adair Option 2
Existing Substation
Proposed Substation
Conservation Area
Parcel Boundary Lines
Municipal Area
County Boundary
Ameren TRANSMISSION
Ameren Transmission
Mark Twain Transmission Project
161-kV Options
Zachary - Adair
SCHEDULE CJW-02
Source: MSDIS; Esri; Ameren; Burns & McDonnell Engineering.
Revised February 05, 2015

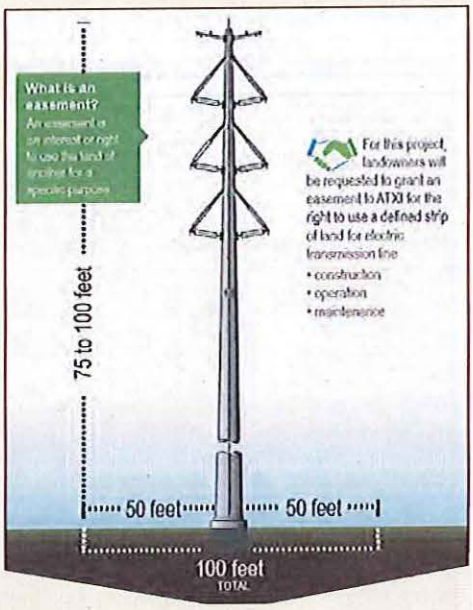
Project Fact Sheet

161,000 Volt Connector Line

PROJECT DESCRIPTION

Ameren Transmission Company of Illinois (ATXI) is planning to build a 161,000-volt connector transmission line, approximately 2.5 miles long, which will connect from the existing Ameren Missouri Adair Substation to the new Ameren Transmission Zachary substation in Kirksville, Missouri.

The map on the back shows the two options that we are considering; however, only one of these routes will be selected. The final route will be built on an easement 100 feet in width, which ATXI hopes to establish through good-faith negotiations with landowners.



PROJECT SNAPSHOT

- Length: Approximately 2.5 miles
- In-service date: November 2018
- Voltage: 161,000 volts
- Structures: Single shaft steel poles
- Easement width: 100 feet

PROJECT BENEFITS

This connection is part of the Midcontinent Independent Service Operator's Multi-Value Project (MVP) portfolio, and is necessary to achieve the full benefits of the MVPs, which are, in part:

- Reduced congestion and improved efficiency of the regional transmission grid
- Better access to sources of renewable energy
- Improved electric transmission system reliability

ROUTING AND STAKEHOLDER/ PUBLIC PROCESS

ATXI is developing the Mark Twain Transmission Project in collaboration with landowners, community officials, and agencies by incorporating their input during the evaluation of the two constructible route options.

CONTACT US

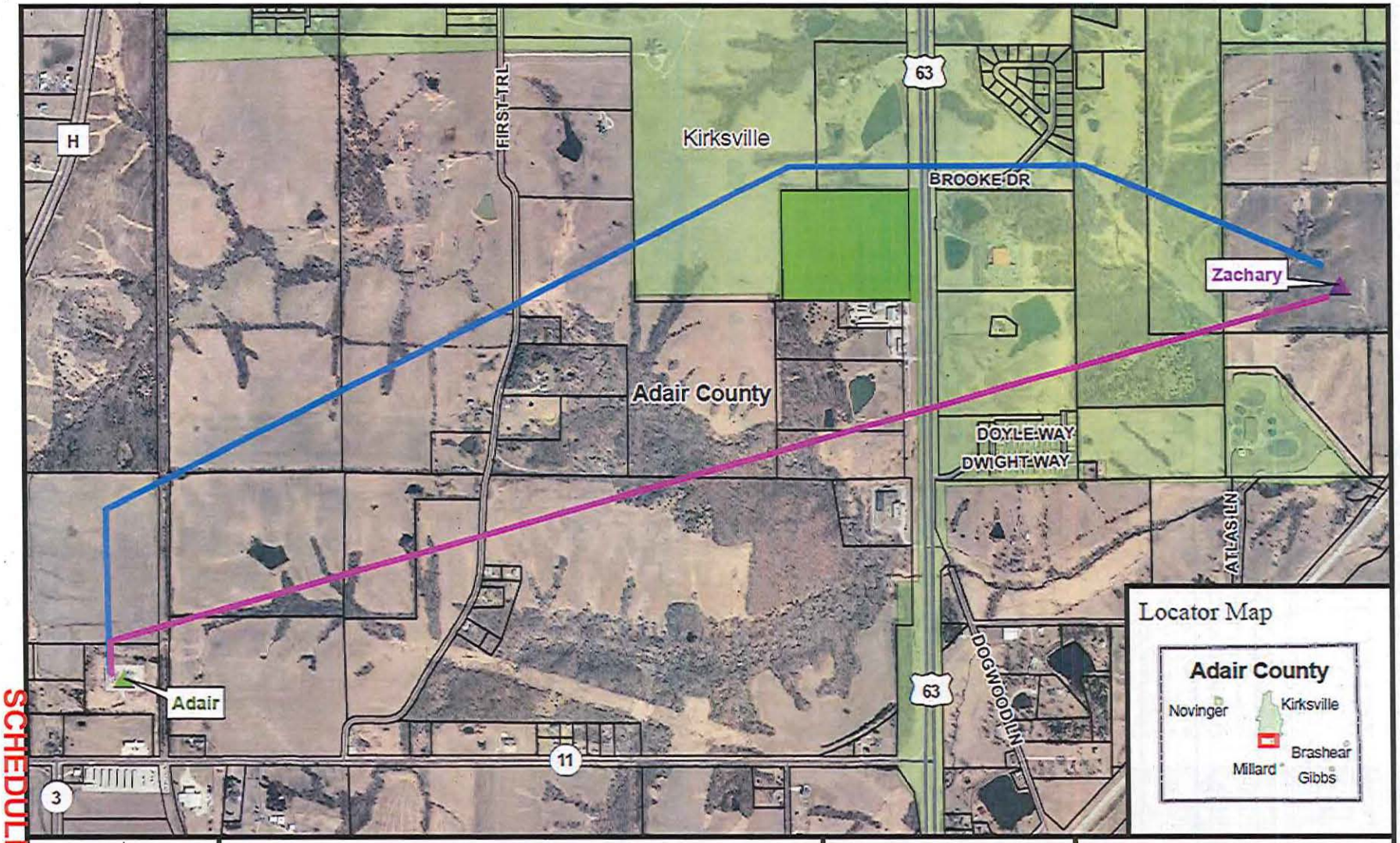
Toll-Free Hotline:	1.888.340.6640
Email:	marktwaintransmission@ameren.com
Website:	www.marktwaintransmission.com
Direct Mail:	Burns & McDonnell Jennifer Berry 9400 Ward Parkway Kansas City, MO 64114

Ameren TRANSMISSION

SCHEDULE CJW-02

ROUTE ALTERNATIVES MAP

SCHEDULE CJW-02



Source: MSDIS; Esri; Ameren; Burns & McDonnell Engineering.

Revised February 05, 2015

The Ameren Transmission Company of Illinois project team would like to have a one-on-one conversation about the new 161,000 volt connector to the new Zachary substation.

These appointments are intended to provide you with an opportunity to ask us questions about the project and how it will affect you.

Simply fill out the form to the right and mail this postcard back to us. We will then contact you to schedule your appointment.

If you have any questions, contact our team any time via e-mail at marktwaintransmission@ameren.com or by calling 888-340-6640.

MAKE AN APPOINTMENT

Please indicate below a preferred time for February 25th.
We will contact you to confirm a time that works for you.

☐ morning ☐ afternoon ☐ evening

☐ Contact me by phone.

☐ Contact me by e-mail.

Your name:

Your phone number:

Your e-mail address:

SCHEDULE CJW-02

Please reply by February 13th.

Mark Twain Transmission Project
c/o Burns & McDonnell
Jennifer Berry
9400 Ward Parkway
Kansas City, MO 64114

SCHEDULE CJW-02

marktwaintransmission.com

161,000 volt Connector Line Comment Form

Ameren TRANSMISSION

This questionnaire helps us to identify issues and concerns related to the routing of the 161,000 volt line which will connect to the new Mark Twain substation in Kirksville, Missouri. ***All comments are to be received by March 12, 2015.*** You may also complete this online at https://www.surveymonkey.com/s/161_connector_line

1. **How did you hear about the 161,000 volt connector line?** (Please check all that apply)

☐ a. I received a letter
☐ b. Neighbor/friend
☐ c. Newspaper
☐ d. At one of the Mark Twain open houses
☐ e. Internet/e-mail
☐ f. Other (please explain)_____

2. **Did you attend any of the Mark Twain Transmission Project public open houses in 2014?**

☐ a. Yes
☐ b. No, I have not attended any previous open houses

3. **Which of the following applies to your situation? (Please check all that apply)**

☐ a. Potential 161,000 volt route is near my home.
☐ b. Potential 161,000 volt route is near or crosses my farm or business.
☐ c. Generally concerned about the 161,000 volt Project.
☐ d. Other, please specify _____

4. **Do you have any current easements/leases on your property?** ☐ YES ☐ NO
If yes, what type (land sale, wind turbine, power line, etc.): _____

6. **If you have not already logged your comments/concerns at a computer station, please list them below:**

_____
_____
_____
_____
_____
_____
_____
_____

OPTIONAL: Please enter your contact information below to help us relate comments specifically to your property. (Names and addresses are confidential.)

Name _____

Address_____City_____State/Zip_____

Email: _____Phone_____

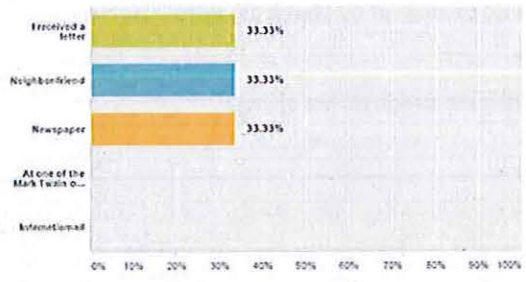
If taking the questionnaire with you, please mail completed questionnaire **before March 12** to:

Burns & McDonnell, c/o Jennifer Berry
9400 Ward Parkway
Kansas City, MO 64114

SCHEDULE CJW-02

How did you hear about the 161,000 volt connector line?

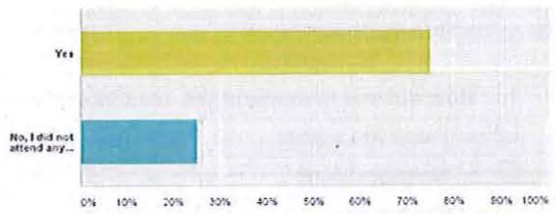
Answered: 3 Skipped: 1



Answer Choices	Responses	
I received a letter	33.33%	1
Neighbor/friend	33.33%	1
Newspaper	33.33%	1
At one of the Mark Twain open houses	0.00%	0
Internet/e-mail	0.00%	0
Total Respondents: 3		

Did you attend any of the Mark Twain open houses in 2014?

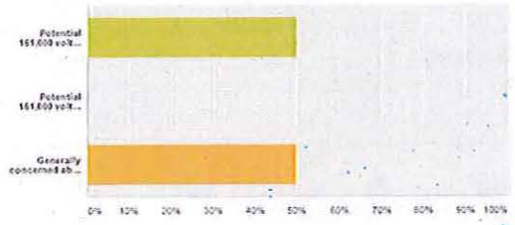
Answered: 4 Skipped: 0



Answer Choices	Responses	
Yes	75.00%	3
No, I did not attend any previous open houses	25.00%	1
Total		4

Which of the following applies to your situation?

Answered: 4 Skipped: 0

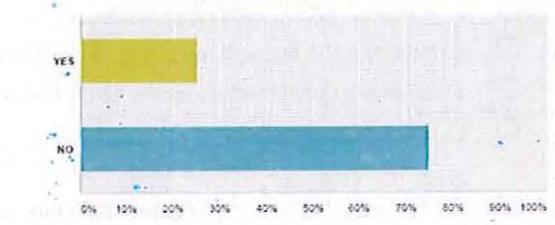


Answer Choices	Responses	
Potential 161,000 volt route is near my home.	50.00%	2
Potential 161,000 volt route is near or crosses my farm or business.	0.00%	0
Generally concerned about the 161,000 volt Project.	50.00%	2
Total		4

Comments (0)

Do you have any current easements/leases on your property?

Answered: 4 Skipped: 0



Answer Choices	Responses	
YES	25.00%	1
NO	75.00%	3
Total		4

Comments (1)

SCHEDULE CJW-02