STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSION

AMEREN TRANSMISSION COMPANY OF ILLINOIS	)	
	)	
Petition for Certificate of Public Convenience and Necessity, pursuant to Section 8-406.1 of the Illinois Public Utilities Act, and an Order pursuant to Section 8.503 of the Public Utilities Act, to Construct, Operate and Maintain a New High Voltage Electric Service Line and Related Facilities in the Counties of Adams, Brown, Cass, Champaign, Christian, Clark, Coles, Edgar, Fulton, Macon, Montgomery, Morgan, Moultrie, Pike, Sangamon, Schuyler, Scott and Shelby, Illinois.	)	Docket No. 12-0598

REVISED DIRECT TESTIMONY

OF

DR. MAGDI RAGHEB

<u>Intervenor Ragheb Family's Exhibit 1.0R</u>

DIRECT TESTIMONY OF MAGDI RAGHEB

Q. WHAT IS YOUR NAME AND ADDRESS?

A. My name is Dr. Magdi Ragheb and my address is 2502 Jordan Drive, Champaign, Illinois 61822.

Q. WHAT IS YOUR STATUS IN THIS CASE?

I am an intervenor in this case and my wife Barbara Ragheb and I own a plot of land ("Ragheb Family Farm") along the Alternate Route proposed by Ameren Transmission Company of Illinois ("ATXI") between Rising and Sidney. I wish to note that the term "Ragheb Family" refers to myself, my wife Barbara Ragheb, and my son Adam Ragheb.

Q. HAVE YOU EVER TESTIFIED BEFORE THE ILLINOIS COMMERCE COMMISSION?

A. No.

Q. WHERE IS THE RAGHEB FAMILY FARM LOCATED?

A. The Ragheb Family Farm is located along County Road 600N, between County Roads 1800E and 1900E in Champaign County. The farm is located in and pays real estate taxes to the Village of Sidney, Illinois.

Q. DOES THE RAGHEB FAMILY FARM HAVE ANY EASEMENTS ENCUMBERING IT CURRENTLY?

A. No. The Ragheb Family is unaware of any easements of any sort that encumber the Ragheb Family Farm, and a search at the County Recorder's Office in Urbana, Illinois has yielded no easements on the land.

Q. IS THE RAGHEB FAMILY FARM DEPICTED ON A MAP OR DIAGRAM?

A. Yes, the Ragheb Family Farm is shown in Ragheb Family Exhibit 1.1.

Q. PLEASE DESCRIBE RAGHEB FAMILY EX. 1.1.

A. The Ragheb Family prepared Ex. 1.1 from imagery obtained from Google maps. We drew a black box around our plot of land, which comprises 80 acres of land. In the southwest corner of the plot is an approximately 5000 sq ft machine shed, and in the south central portion is an orchard consisting of apple, pear, peach, and apricot trees, among others. An apiary also exists on the premises.

Q. WHAT ARE THE EIGHT LINES LOCATED IN YOUR FIELD THAT RUN IN A NORTH-SOUTH DIRECTION AND THREE LINES THAT RUN IN AN EAST-WEST DIRECTION?

A. Those are terraces whose purpose is to control erosion. This farm is characterized as Highly Erodible Land ("HEL"), and as such, we take great care and expense to farm it with no-till farming practices.

Q. DO YOU HAVE ANY DOCUMENTATION PROVING THAT THIS LAND IS HIGHLY ERODABLE LAND AND THAT YOU FARM IT NO-TILL?

A. Yes. Ragheb Family Exhibit 1.2 is a scan of a letter from the United States Department of Agriculture's Natural Resource Conservation Service. The July 2, 2012 letter states that we are controlling our soil erosion level within the allowable standards for HEL cropland.

Q. IS THE RAGHEB FAMILY FARM ACTIVELY FARMED?

A. Yes, all but small portions around the machine shed, orchard, apiary and terraces are presently farmed and at the time of this testimony are planted into winter wheat.

Q. ARE THERE ANY FUTURE PLANS FOR THE RAGHEB FAMILY FARM?

A. Yes. We plan to construct an ultralight flightpark on the land. Ragheb Family Exhibit 1.3 shows drawings and topographical maps submitted to the Federal Aviation

Administration ("FAA") and to the Champaign County Department of Planning and Zoning. My son, who is a degreed Aerospace Engineer and an FAA-certified Single Engine Land and Sea Private Pilot with an Instrument Rating and a Complex Aircraft endorsement, has had a love of flight since the age of eight, and we are finally in a position to construct the landing strip on our farm that we have always wanted.

Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATIONAL AND EMPLOYMENT BACKGROUND.

A. I received a Bachelor of Science degree in Nuclear Engineering from the University of Wisconsin-Madison in 1974, and a PhD in Nuclear Engineering and Computer Science from the University of Wisconsin-Madison in 1978. I have served as a Professor in the University of Illinois-Urbana-Champaign Department of Nuclear, Plasma, and Radiological Engineering since 1979. I teach courses on Wind Power Systems, Energy Storage Systems, Nuclear Power Engineering, Safety Analysis, and Monte Carlo Simulations, among others. I have authored numerous papers which cover topics including but not limited to wind turbine design theory, wind turbine gearbox technology, wind turbine power generation, and the coupling of wind and nuclear power generation. One chapter of the notes for my Wind Power Systems course deals specifically with Electrical Generation and System Integration and another deals with High Voltage Direct Current transmission lines for transmission of wind power.

Q. ARE YOU FAMILIAR WITH THE PETITION THAT WAS FILED BEFORE THE ILLINOIS COMMERCE COMMISSION ON JANUARY 7, 2013 (DOCKET NUMBER 12-0598, INCOMPLETELY FILED ON NOVEMBER 7, 2012)?

A. Yes. I have read the Petition and I am familiar with the Petition and Attachments.

Q. ARE YOU AUTHORIZED TO TESTIFY IN OPPOSITION TO THE AFOREMENTIONED PETITION?

A. As an intervenor and affected landowner, yes, I am.

Q. ARE YOU PERSONALLY FAMILIAR WITH THE CONTENTS OF THE PETITION?

A. Yes, I am.

Q. ARE YOU AWARE THAT MULTIPLE PETITIONS TO INTERVENE HAVE BEEN FILED IN THIS MATTER BY VARIOUS PARTIES, INCLUDING THE RAGHEB FAMILY, OF WHICH YOU ARE A MEMBER?

A. Yes, I am. The Ragheb family opposes the granting of the Certificate and Order sought by Petitioner and therefore the Ragheb family filed its Petition to Intervene in this matter on January 3, 2013. I am also aware that a number of our neighbors, specifically Mrs. Nancy N. Madigan (represented by Attorney Andrew W. Bequette), whose farm lies directly to the west of the Ragheb Family Farm, and Mr. Michael E. Lockwood, whose home and woodlot lie approximately 1.25 miles west of the Ragheb Family Farm, have filed petitions to intervene which have been approved.

Q. WHY HAVE YOU MENTIONED THOSE TWO SPECIFIC INTERVENORS?

A. I have mentioned those two specific intervenors because we have submitted a Designation of Alternate route that follows an already existing 69 kV power line located ½ mile north of a portion of ATXI's proposed Alternate Route. This route follows a rural road, proceeds along an existing power line right-of-way ("ROW") and avoids those two intervenors' land, in addition to ours.

Q. WHEN DID YOU FIRST BECOME AWARE OF THE PROJECT WHICH ATXI IS PROPOSING PURSUANT TO THE PETITION HEREIN?

A. The Ragheb Family first became aware of the project around mid-September 2012 when a letter was mailed to our home notifying us of an "Open House" scheduled for October 10, 2012 at Unity High school in Tolono.

Q. ATXI HAS CLAIMED THAT MEETINGS WERE HELD AND NOTICES POSTED AS EARLY AS APRIL, 2012. WERE YOU AWARE OF THE PROJECT PRIOR TO THE ARRIVAL OF THE LETTER AT YOUR HOME?

A. No, I was not. The Ragheb Family was informed of only one meeting that they attended at Tolono, Illinois. Reportedly, three meetings are expected to be held, of which we were directly informed about only one of them.

Q. ON WHAT DATE WAS THE LETTER THAT FIRST ALERTED YOU TO THE PROJECT FIRST POSTMARKED?

A. The postage printed on the letter indicated September 7, 2012.

Q. IF YOU WOULD HAVE BEEN AWARE OF THE APRIL 2012 MEETINGS, WOULD YOU HAVE ATTENDED?

A. Yes, without a doubt.

Q. DO YOU AND THE RAGHEB FAMILY OPPOSE THE PETITION BROUGHT BY ATXI IN THIS CASE?

A. The Ragheb Family supports the development of renewable energy resources, particularly wind resources in the Midwest, and acknowledges that adequately designed transmission lines are needed to effectively dispatch the electricity from the generation

location to consumers. The Ragheb Family, however opposes the petition brought by ATXI in this case.

Q. CAN YOU EXPLAIN HOW THE RAGHEB FAMILY REACHED ITS DECISION TO OPPOSE THE PETITION?

A. Yes, I can. The proposed design is lacking, in that in its rush to pre-empt competing transmission lines, which I will prove later, it did not have time to or elected not to follow the basic engineering requirement of comparing alternative approaches to the design and showing that the chosen alternative do indeed satisfy the reliability, safety and economic requirements. The proposed design appears to be deliberately undersized. It lacks transparency about the unavoidable future need to increase the capacity and enlarging the right-of-way turning existing valuable and productive farmland into an Industrial Corridor. In Champaign County, it avoids repowering existing power lines to satisfy the alleged demand. In Champaign County, it avoids following existing rights of way along rural roads, existing non-Ameren power lines, and railroad tracks in favor of following some boundary lines through the middle of 1 mile-square sections. It totally ignores the possibility of “undergrounding” of the power lines in high-population and environmentally sensitive and high value farming areas. The accounting consideration appears to take precedence over the engineering design with the sole purpose, according to ATXI filing, of “acquiring rights of ways” which would constitute “assets” to “be depreciated” and hence “generate cash flow” so as to “facilitate the ability of ATXI to obtain its own credit rating.” (ATXI Exhibit 6.0) This proposed plan is clearly a “land grab” that enriches ATXI to the detriment of the Illinois rate payers who would be later asked to pay for the costs of a project that follows technology in place since the 1800s,

and deliberately avoids more-modern approaches such as High Voltage Direct Current ("HVDC") power transmission which is considered as the most economic and reliable approach to long distance power transmission, particularly for wind power transmission that ATXI claims to serve. Another more modern approach avoided by ATXI is the use of 765 kV AC transmission, which was pioneered by American Electric Power, the owner of our proud nation's largest electricity transmission system, in the 1960s. ATXI does not present any evidence that future growth is accounted for and has avoided directly answering questions extending more than 5 years beyond the completion of the project, which will have a lifetime between 65 and 100 years at a minimum.

Undergrounding was totally ignored for the Sidney to Rising loop, which in ATXI's own words is "located in the developed portions of Champaign County;" this is exactly where such an approach would be appropriate. When asked, ATXI provided no other rationale as to why locating the conductors underground was not considered other than "MISO evaluated the options to meet the goals of the MVP portfolio. An overhead circuit was used in the system studies and was selected by MISO. ATXI is in fact inexperienced in such a process, as they have stated "ATXI does not have the experience to estimate the construction cost premium of underground transmission lines when compared to above ground transmission lines, so it cannot provide the cost information."

The Project, as proposed, callously destroys the value of farmland along its chosen lines. ATXI's forced acquisition of ever-appreciating farmland as "assets" denies the land owners the future appreciation in the value of their land yet their one-time compensation will be generally tied to a valuation conducted by a company hired by ATXI. ATXI has expressed that it has not intention of paying farmers any inflation-adjusted rents or

royalties. ATXI misrepresents its project as a wind/renewable energy project on its public website to avoid scrutiny regarding its transmitting energy from the Meredosia site that is planned for a coal power plant. ATXI operates a mere 28 or 29 miles of transmission lines and is tasked to expand them through expropriation of over 300 miles of "assets" at the expense of Illinois rate payers and farmers. It plans to operate exclusively at the 345 kV level, whereas nationwide plans call for 745 kV AC of HVDC transmission facilities. This lack of transparency and consideration of alternatives violates general engineering principles where all options should be considered before the most suitable one is adopted.

Q. DOES THE RAGHEB FAMILY OPPOSE THE ALTERNATE ROUTE THAT ATXI HAS PROPOSED THROUGH CHAMPAIGN COUNTY?

A. Yes.

Q. CAN YOU EXPLAIN HOW THE RAGHEB FAMILY REACHED ITS DECISION TO OPPOSE THE ALTERNATE ROUTE THROUGH CHAMPAIGN COUNTY?

A. Yes. To put it quite simply, in the rush of its "expedited procedure," ATXI did not perform a careful, diligent, and complete route evaluation and siting analysis in Champaign County. The Ragheb Family's Exhibit 1.4, Part 1 of 2, Line 1, Page 1 of 1, shows a zoomed-in and unmodified portion of ATXI Exhibit 4.6, Part 10 of 10, Page 1 of 1, which carries the title "All Routes Considered Sidney to Rising." Line 2 of Ex. 1.4, Part 1, shows ATXI's Legend. Both of these are taken directly and are unmodified from ATXI Exhibit 4.6, Part 10 of 10, Page 1 of 1. Line 1 of the Ragheb Family's Exhibit 1.4, Part 1, shows that one of the "Opportunities Evaluated" runs directly through The University of Illinois' Willard Airport. This is an egregious error that unacceptable in any engineering design. In general, roads are laid out in the standard one square mile grid in

Champaign County, and it is clear to persons who visit the area in person that the approximately two mile by two mile plot of land upon which the airport is built is devoid of the north-south and east-west roads that would be expected of the standard grid pattern. It appears that ATXI simply drew an "Opportunities Evaluated" line along a road that exists east and west of the airport, and sloppily continued said line through the airport in order to create the appearance of having investigated routing opportunities. The carelessness with which this line was drawn on ATXI Exhibit 4.6 calls into question the entire process by which ATXI developed and considered its "Opportunities Evaluated" and the "Route Alternatives Studied" in Champaign County.

Q. IS THERE ANY OTHER EVIDENCE THAT WOULD SUGGEST ATXI DID NOT PERFORM A CAREFUL AND DILIGENT ROUTE EVALUATION AND SITING ANALYSIS IN CHAMPAIGN COUNTY?

A. Yes. Returning to ATXI Exhibit 4.6, Part 10 of 10, Page 1 of 1, the locations of existing transmission lines located east southeast of Urbana and west northwest of Sidney are grossly inaccurate. The Ragheb Family frequently drives along the roads in this area that is adjacent to their farm, and are fully cognizant of the locations of the existing transmission lines. From an actual field survey, the Ragheb Family has created a map of the power lines in that same area, and that map is presented in Ragheb Family Exhibit 1.4, Part 2, Lines 1-4, Page 1. The first major inaccuracy on the map is the complete omission in the ATXI version of this map of an existing 69 kV power line that runs northerly along Champaign County Road 1500E into the Philo Township, then turns easterly along and follows Champaign County Road 700N. Lets pause here to recap – ATXI has identified an opportunity directly through a regional airport with daily airline

service yet has neglected to locate 7 miles of 69 kV power lines that exist ½ mile from their proposed Alternate Route. This 69 kV power line intersects an existing ATXI 138 kV transmission line, which the ATXI-proposed Alternate Route would follow, approximately 3 miles south of the Sidney substation. We do wish to note that ATXI identified the existence of a line at the location where this line intersects ATXI's existing 138 kV transmission line in ATXI Exhibit 4.2, Part 99 of 100, Page 2 of 2, but it is depicted as being the same as the standard and significantly smaller distribution lines that supply electricity to homes, wells, and sheds across the state. This line is most definitely not one of those, and Ragheb Family Exhibit 1.4, Part 2, Lines 5-13, Pages 2-4 show three pictures of this line, and one picture at the location where it traverses beneath ATXI's 138 kV line south of Sidney. A document obtained with a simple in-person request to the Champaign County Regional Planning Commission corroborates the existence and significance (low-level distribution lines are not shown) of this line, and a map from that document is presented in Ragheb Family Exhibit 1.4, Part 2, Line 14, Page 5.

Another major error in the ATXI maps is how the 138 kV transmission lines are depicted to approach the electrical substation at Sidney. ATXI's map shows one coming directly from the north and one directly from the south. This is correct based on our field reconnaissance. The two 138 kV lines arriving from the northeast however, are incorrectly displayed in the maps that ATXI is using in this expedited process. ATXI's map shows one line heading in a southeasterly direction until a point approximately 0.75 miles due south of Sidney, where it turns northeasterly and heads towards the substation, entering at the west side. The other 138 kV line is shown to turn due south approximately

1.5 miles north of Sidney after traveling from the southeast part of Urbana along two diagonal paths. Near the east part of the center of Sidney, the line is shown to turn southeast and enter the substation also from the west side. In truth, these two lines run nearly parallel to the 138 kV transmission line that ATXI correctly located running due south to the substation. One line runs parallel for approximately 0.5 miles, while one runs for approximately 1 mile. A photograph of the three nearly parallel lines is presented in Ragheb Family Exhibit 1.4, Part 2, Page 7, Lines 22-24. The conclusion is that ATXI is basing its expedited procedure project on its clearly inaccurate power line maps.

The final major inaccuracy with ATXI's maps of lines in Champaign County deals with the location of the two 138 kV transmission lines described in the above paragraph. The northerly one is shown to follow two diagonal paths between Sidney and Urbana, then turns north approximately 1/2 mile south of Urbana, passing west of the (correctly located) substation near the intersection of Windsor and High Cross (State Highway 130) Roads. In truth, this line follows north-south and east-west roads for approximately 2/3 of the way from Sidney to Urbana. Approximately 0.5 miles east of the Urbana substation, the line splits, with one spur heading due north, and the other heading due west to connect to the Urbana substation at the intersection of High Cross and Windsor roads.

The second 138 kV transmission line is shown by ATXI to follow a diagonal path approximately 1 mile south of the previous paragraph's transmission line until a point near High Cross Road (State Highway 130) and County Road 1200N where it turns due west. In truth, this line follows the diagonal, old railroad ROW path that the previous line was shown to almost follow. This line comes very close to intersecting with the other

line, and then turns due west, heads south for a mile, then due west. For reference, a zoomed-in and unmodified copy of ATXI's Exhibit 4.6 is shown on Page 6 of Ragheb Family Exhibit 1.4, Part 2 of 2. Once again, the correct map plotted by us is shown on Page 1 of Ragheb Family Exhibit 1.4, Part 2 of 2.

Q. HAS ATXI CLAIMED TO HAVE PERFORMED FIELD RECONNAISSANCE IN CHAMPAIGN COUNTY?

A. Yes. In ATXI's response to a Ragheb Family Data request as to the dates and methods (ground vehicle or aerial vehicle), ATXI's Donell Murphy has stated "To the extent feasible from locations of nearby public access, field reconnaissance was completed via ground vehicle by ERM in July 2012. Helicopter-based field reconnaissance was performed jointly by ATXI and ERM in September 2012."

Q. WHY ARE YOU CONCERNED WITH THE AFOREMENTIONED ERRORS IN ATXI'S MAPS?

A. These errors in ATXI's maps indicate that minimal attention was given to locating existing transmission lines, despite ATXI listing "Transmission line rights-of-way" as an opportunity in ATXI Exhibit 4.4, Page 1 of 1. By mislocating and missing existing transmission lines, ATXI was unable to perform a correct and accurate analysis of repowering or adding an additional circuit to an existing transmission line. This could be considered as deciding whether to repair or replace an existing road without even knowing where the existing road location is and how long it is. Looking at the problem from this perspective, it is impossible that a correct analysis was performed, and if repowering or using dual circuits on existing power lines were even properly investigated. By completely neglecting to include 7 miles of 69 kV power lines that run

along a secondary road, ATXI has missed out on two of their opportunities listed in ATXI Exhibit 4.4; those opportunities missed being: "Secondary roads" and "Transmission line rights-of-way." This is akin to building a new road without knowing where the old road exists.

Q. ASIDE FROM CREATING A CORRECT MAP, HAS THE RAGHEB FAMILY DONE ANYTHING AS A RESULT OF ATXI'S INCORRECT MAP OF THE AREA NEAR SIDNEY?

A. Yes. The Ragheb Family has submitted a Designation of Alternate Route that corrects the inadequacies in ATXI's Alternate Route.

Q. CAN YOU BRIEFLY DESCRIBE THIS DESIGNATION OF ALTERNATE ROUTE?

A. Yes. Our proposed alternate route modifies only a 7 mile portion of ATXI's Champaign County Alternate Route to follow the existing 69 kV power line of which ATXI's maps were nearly completely devoid. This route does not change the length of the transmission line when compared to ATXI's proposed Alternate Route, and it provides ATXI with 7 miles of transmission line along secondary paved country roads for construction and maintenance access instead of running through the middle of sections where roads or gravel paths do not currently exist. This prevents at least part of the callous destruction of valuable farmland with the sole purpose of "acquiring assets" then "depreciating" them to "generate cash flow."

Q. WILL ATXI EXPERIENCE ANY OTHER BENEFITS FROM THE RAGHEB FAMILY'S MODIFICATION TO ATXI'S ALTERNATE ROUTE?

A. Yes. By having 7 miles of transmission line adjacent to paved country roads where an existing high voltage power line already exists, we expect that ATXI will have its construction, maintenance, and repair in the event of storm-induced damage costs reduced. Additionally, with a road adjacent to the line, it may be reasonably assumed that less crops will be destroyed for maintenance and repair of the lines, which will benefit ATXI through reduced payments to farmers and will promote a less-stressed relationship between farmers and ATXI.

Q. HOW WILL THE RAGHEB FAMILY DESIGNATION OF ALTERNATE ROUTE ADVERSELY AFFECT ATXI?

A. I believe that these 7 miles of transmission line and their respective easement, if collocated with the existing 69 kV power line (Ragheb Family's Designation of Alternate Route), will be of a lower asset value to ATXI than 7 miles of transmission line where the poles and easements are not shared (*i.e.* ATXI's unmodified Alternate Route). Other than this, ATXI will only benefit from the Ragheb Family's Designation of Alternate Route.

Q. CAN YOU FURTHER EXPLAIN THE BASIS FOR YOUR PREVIOUS ANSWER?

A. Yes. A data request to ATXI was made regarding the value of overlapping easements to ATXI versus non-overlapping easements. As shown in Ragheb Family Exhibit 1.5, Part 1, ATXI attempted to avoid the question, trying to steer it into a question about compensation to landowners when in fact the question was clearly inquiring about the value of easements to ATXI. It is my conclusion that ATXI wanted to avoid stating that overlapping easements are not worth as much as non-overlapping easements for

accounting purposes, as this would be evidence against ATXI and a reason for ATXI to seek non-overlapping easements in order to acquire assets with a greater value.

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Q. WILL ANY OTHER INTERVENORS IN THIS CASE BENEFIT FROM THE RAGHEB FAMILY'S MODIFICATION TO ATXI'S ALTERNATE ROUTE?

A. Yes. The properties of Mrs. Nancy N. Madigan and Mr. Michael E. Lockwood will no longer be affected by ATXI's Alternate Route if the Ragheb Family's modification is incorporated.

Q. DOES THE RAGHEB FAMILY'S MODIFICATION TO ATXI'S ALTERNATE ROUTE AFFECT ANY INTERVENORS IN THIS CASE?

A. To the best of my knowledge, no.

Q. HOW MANY RESIDENCES WILL BE AFFECTED BY THE RAGHEB FAMILY'S MODIFICATION TO ATXI'S ALTERNATE ROUTE?

A. The Ragheb Family's modification to ATXI's Alternate Route will bring the transmission line within 150 feet of no more than 9 residential buildings. That being said, zero **additional** residential buildings will be located within 150 feet of the transmission line, as all (up to) 9 already have already a power line within 150 feet of them. Additionally, one of the residential buildings appears to be uninhabited. It is located at the southwest corner of the intersection of Champaign County Roads 700N and 2100E and a photograph of it is shown in Ragheb Family Exhibit 1.5, Part 2, Page 1. Another one of the buildings already lies on ATXI's Alternate Route

Q. DOES ATXI OPPOSE THE RAGHEB FAMILY'S MODIFICATION TO ATXI'S ALTERNATE ROUTE?

A. Yes. ATXI's Donell Murphy has stated that "ATXI does not support the modification to ATXI's proposed Alternate Route south of the Village of Philo as there are a greater number of existing homes located along this modified segments, in comparison to the comparable portion of ATXI's proposed Alternate Route."

Q. HOW DO YOU RESPOND TO ATXI'S OPPOSITION?

A. Based on our field reconnaissance of the route, 9 farmsteads will be avoided through the adoption of our modification to ATXI's Alternate Route. While our modification would have 9 residences within 150 feet of its centerline, one of those residences is already within 150 feet of ATXI's Alternate Route, and one appears to be abandoned. Regardless of the number of residences within 150 feet of our Alternate Route, all, and it is emphasized, **ALL** residences within 150 feet of our Alternate Route already have the

power line photographed in Ragheb Family Exhibit 1.4, Pages 2 through 4 running within 150 feet of them. ATXI's unmodified route will result in an **ADDITIONAL** 9 farmsteads that will have a transmission line passing very close to, if not directly over, them. The Ragheb Family's modification to ATXI's Alternate Route will instead avoid 9 farmsteads, and thus the number of residences by powerlines over this 7 mile stretch will not increase from the *status quo*. No consideration to the three horse and cow grazing lands, the ultralight flightpark, and the HEL that would be impacted by ATXI's alternate route was made in Ms. Murphy's response.

Q. CAN YOU PRESENT A COMPARISON OF THE RAGHEB FAMILY'S MODIFICATION TO ATXI'S ALTERNATE ROUTE TO ATXI'S UNMODIFIED ALTERNATE ROUTE BASED ON ROUTING CRITERIA USED IN THE PAST BY THE ILLINOIS COMMERCE COMMISSION?

A. Yes. Based on and adapted from the twelve factors listed in the Commission's Order on Reopening in Docket 06-0706, a comparison of the two routes is presented below:

FACTOR	PREFERRED ROUTE
1. Length of the line (both are 7 miles in length)	NEITHER
2. Difficulty and cost of construction (Ragheb route lies along a paved road)	RAGHEB FAMILY ROUTE
3. Difficulty and cost of operation and maintenance (Ragheb route lies along a paved road)	RAGHEB FAMILY ROUTE
4. Environmental impacts (Ragheb route avoids highly erodible land that is farmed no-till)	RAGHEB FAMILY ROUTE
5. Impacts on historical resources (To the best of our knowledge no historical resources exist along either)	NEITHER
6. Social and land use impacts (Ragheb route prevents problems with horses, cattle, and an ultralight flightpark)	RAGHEB FAMILY ROUTE

7. Number of affected intervenors/other stakeholders RAGHEB FAMILY ROUTE
(Ragheb route avoids 3 intervenors' properties)

8. Proximity to homes/structures currently w/o a power line RAGHEB FAMILY ROUTE
(Ragheb route adds a high voltage power line to zero houses)

9. Proximity to existing and planned development RAGHEB FAMILY ROUTE
(Ragheb route avoids a planned ultralight flightpark)

10. Community acceptance NEITHER
(No community has spoken against either route)

11.Visual impact RAGHEB FAMILY ROUTE
(Ragheb route prevents a transmission line being added 0.5 mi from existing one)

12. Presence of existing corridors RAGHEB FAMILY ROUTE
(Ragheb route makes use of an existing high voltage line corridor)

Q. RETURNING TO THE RAGHEB FAMILY'S OPPOSITION TO ATXI'S PETITION, CAN YOU PROVIDE A BRIEF SUMMARY OF THE REASONS BEHIND THAT OPPOSITION?

A. Yes. A brief summary of the reasons behind the Ragheb Family's opposition to ATXI's petition are as follows:

1. The Illinois Rivers Project is not part of a national plan for wind power conveyance, that ATXI claims to serve, from the western production sites to the eastern consumption sites.
2. The Illinois Rivers Project appears rushed to market, and exhibits telltale signs of deliberate undersizing of a merchant transmission line.
3. The use of HVDC and 765 kV Alternating Current (AC) were not considered, and both of these are a more efficient use of the rights-of way ("ROWs").
4. ATXI's petition should be considered as part of a long-term, statewide plan, and not piecewise within the ICC. It needs to be evaluated in comparison to

all projects (Senator's letter). It must be noted that Illinois lawmakers have expressed opposition to the current "expedited process."

5. ATXI admits that the line passes through "developed portions of Champaign County." Hence it should be asked to perform an analysis of undergrounding the power lines in this area or repowering existing ROWs to avoid "the increased number of routing sensitivities in this area" and to avoid affecting previously unaffected routing sensitivities.

6. ATXI is not operating with transparency by undersizing its power line, knowing that it will be required to increase capacity in the future and thus turning the expropriated ROWs into Industrial Corridors.

Q. CAN YOU PLEASE ELABORATE UPON AND PROVIDE EVIDENCE TO SUPPORT THE RAGHEB FAMILY'S FIRST REASON FOR OPPOSING THE PETITION, THAT THE ILLINOIS RIVERS PROJECT IS NOT PART OF A NATIONAL PLAN?

A. Yes. Through the website www.ilriverstransmission.com/need, ATXI states that the first goal of the project is to "Facilitate the delivery of renewable energy." The majority of the colors on the website are green, which (incorrectly) makes this project appear like one dealing with "green energy." As stated many times, this Project will allegedly provide a path for wind power from Iowa to head east to Indiana and beyond, a path that traverses and involves a number of states. The Ragheb Family has identified in the publicly available literature two different concepts for a national electrical grid plan, and the Illinois Rivers Project is clearly not compatible with or a part of any of those plans. The first plan is shown in Ragheb Family Exhibit 1.6, Page 7. This plan shows a conceptual

765 kV system designed by American Electric Power, an experienced pioneer in electrical transmission technologies, and hosted on the American Wind Energy Association website to integrate wind resources into an interstate transmission system. In regards to Illinois, a 765 kV line is shown traversing the state's northern portion, and another 765 kV line is shown traversing the southern portion of the state. Looking closely at Central Illinois, the Rising and Sidney substations clearly remain without the unsubstantiated connection between them at the 345 kV voltage level that is proposed by ATXI in order to provide them with two connections across Illinois at the 345 kV level (ATXI Response to ICC Staff Data Request 1.22, dated 12/12/2012) through the construction of the Illinois Rivers Project.

The second national grid plan was proposed in a technical report entitled "20 Percent Wind Energy by 2030" that was compiled and distributed by the United States Department of Energy (USDOE). This technical report was an over 15-month endeavor of more than 90 individuals and more than 50 organizations. The chapter entitled "Transmission and Integration into the U.S. Electric System" in the aforementioned report includes contributions from those individuals listed in Ragheb Family Exhibit 1.7, Page 1. Those 36 individuals come from a wide variety of both private and public organizations from across the country. The ATXI line is not part of this plan either as depicted in Ragheb Family Exhibit 1.7, Page 1, and once again, the substations of Sidney and Rising are shown to remain without the superfluous connection at the 345 kV level between them proposed by ATXI.

Q. CAN YOU PLEASE ELABORATE UPON AND PROVIDE EVIDENCE TO SUPPORT THE RAGHEB FAMILY'S SECOND REASON FOR OPPOSING THE

PETITION, THAT THE ILLINOIS RIVERS PROJECT APPEARS TO BE RUSHED TO MARKET AND EXHIBITS TELLTALE SIGNS OF DELIBERATE UNDERSIZING OF A MERCHANT TRANSMISSION LINE?

A. Yes. To start the discussion of deliberate undersizing of a merchant transmission line, we wish to first bring to your kind consideration the Ragheb Family Exhibit 1.8, Part 1 of 6 (emphasis added), which is a publicly-available paper by Dr. Paul Joskow and Jean Tirole. Dr. Paul Joskow holds a Ph.D in Economics from Yale University and has authored numerous papers on a wide variety of energy topics and is currently a Professor of Economics at the Massachusetts Institute of Technology ("MIT") and is President and CEO of the Alfred P. Sloan Foundation. Chapter 5 of Ragheb Family Exhibit 1.8 describes "Lumpy transmission investments." A lumpy infrastructure project is one where the average cost of a project decreases as the capacity of the transmission link increases. Instead of attempting to paraphrase Dr. Joskow's words, we kindly direct the readers to read the two highlighted paragraphs on Pages 22 and 23 of Ragheb Family Exhibit 1.8, Part 1 of 6 (emphasis added). The conclusion section of the paper reads:

> "We show how economies of scale will lead to under-investment, to monopoly pre-emption of competitive generation or transmission investments, and distort the timing of investments. We argue that these problems are unlikely to be resolved by relying on bilateral or multilateral negotiations among the market participants who gain and lose from these investments. Indeed, opportunities for multilateral bargaining may further distort investment incentives."

My first conclusion, given Dr. Joskow's paper and evidence which I will present right below is that ATXI is attempting to pre-empt its competitors on a cross-Illinois transmission line with an undersized line. Talk of difficulty in obtaining siting authority and a "scarcity of rights-of-way" relates directly to the Illinois Rivers Project. Clearly, with opposition from so many landowners and even the Illinois Farm Bureau intervening in this case, there is clearly a reluctance on the part of landowners to give away their land for a transmission project. Additionally, because of the productive and valuable nature of Illinois farmland, not every power line that is proposed can be built. While Illinois does not necessarily lie between a cheap and an expensive area, Illinois lies between an area where wind power resources are good (Iowa) and where wind power resources are poor (southern half of Indiana, northwest part of Kentucky). Thus, there exists a scarcity of rights-of-way in Illinois.

This scarcity of rights-of-way in Illinois is "particularly problematic as demand grows" according to Dr. Joskow's paper. Demand does not appear to be growing rapidly, but let us agree for the sake of only this argument with ATXI that there is a growing demand for such a line. Illinois landowners may allow one line to be constructed, but opposition to a second one will be much stronger and more organized. Thus, like in Dr. Joskow's example, Illinois may be thought of as the corridor through the Pyrénées Mountains between France and Spain. It therefore follows that a merchant transmission line through Illinois would gravitate towards following a "preemption and monopoly" situation because of the scarcity of rights-of-way through Illinois.

Evidence for ATXI's attempt to preempt all other transmission lines include (1) ATXI is seeking expedited procedures in this docket, (2) ATXI's federal request for ratemaking

approval was premature, (3) ATXI requested a short 60 day timetable at the federal level and (4) ATXI followed procedures out of order to "move forward [] as quickly as possible". Therefore, ATXI has exhibited a clear track record of attempting to pre-empt all other projects beginning at least three years ago.

Firstly, ATXI is attempting to pre-empt the Rock Island Clean Line by seeking approval through the Illinois Commerce Commission's ("ICC's") expedited procedures. Despite the fact that ATXI filed its petition after Rock Island Clean Line did in docket 12-0560, this docket will presumably have a final order issued prior to that of docket 12-0560 due to the expedited procedures.

Secondly, ATXI sought ratemaking proposal approval and investment incentives prematurely. I present to you Ragheb Family Exhibit 1.8, Parts 2 and 3 (emphasis added), which are letters written by the ICC and the Missouri Joint Municipal Electric Utility Commission ("MJMEUC"), respectively. On August 2, 2010, Ameren Services made a filing with the Federal Energy Regulatory Commission ("FERC") (docket EL10-80-000) to approve investment incentives and ratemaking proposals for four projects, one of which was the Illinois Rivers Project. This petition was approved in regards to the Illinois Rivers Project by FERC on May 19, 2011, despite **Ameren's request for a ruling within 60 days**, conditioned on the Project's approval in the MISO MTEP. Both the ICC and MJMEUC stated in their petitions to intervene that Ameren's petition was **premature**, and the ICC recommended "**that the petition not be approved at this time**."

Finally, ATXI has followed procedures out of order in order to move forward as quickly as possible. Ameren approached FERC prior to MISO's approval of the Illinois Rivers

Project **and** proposed a 60 day timetable "so that Ameren may move forward with the projects as quickly as possible." The following of an out of order approvals process is why FERC's approval of Ameren's request was conditioned on MISO's approval of the project. This is further evidence that as early as 2010, Ameren was rushing to get through the approvals processes, sometimes out of order, in order to preempt all other projects similar to the Illinois Rivers Project. Thus, Ameren has exhibited a deliberate strategy of pre-emption of all other transmission lines. This argument is further bolstered by the errors and mistakes in ATXI's maps described earlier.

Following the "preemption and monopoly" situation, Dr. Joskow states that "a merchant will install a small capacity on the corridor to gain a toehold and will later expand this capacity. He continues on to states that "Moreover, scarce corridors are typically not allocated through auctions but rather through a regulatory process that places a premium on being first in line." That "regulatory process" is what is currently occurring here in ICC docket 12-0598. ATXI is installing a small capacity on this route, and its representatives have objected to our family's data requests inquiring whether ATXI will (1) seek to add a transmission line parallel to or within 1 mile of the existing line, (2) seek to repower and/or expand the right-of-way of the Project, or (3) seek to add an additional circuit to the existing transmission line. A copy of our questions and ATXI's responses are presented in Ragheb Family Exhibit 1.8, Part 4 of 6, Pages 1 through 3. ATXI stated that all three of these questions were not relevant or material to this proceeding, but they are highly relevant, as we provided ATXI the chance to state that their line was indeed properly sized. ATXI promptly avoided the question. Our questions sought to shed light on whether ATXI felt it had properly sized the Project, which, by

ATXI's own response has operational lifetimes of 60-100 years for the steel pole structures and 60 years for the (Cardinal) conductor. The Ragheb Family specified a time period of 30 years based on ATXI's initial depreciation schedule submitted to the FERC, which was subsequently denied because "Ameren did not explain why a 30-year depreciable life reflects the projects' expected useful life." By avoiding these questions and claiming they are not relevant or material, ATXI has demonstrated that it is unwilling to state that the Project will be sized large enough over a mere 50% (and possibly as low as 30%) of the Project's lifetime. This implies that, within the next 30 years or less, a length of time that is half of the expected lifetime, ATXI will seek to increase the capacity of portions of the Illinois Rivers Project. The only reason for increasing capacity is to correct an undersized situation, and thus ATXI has provided evidence that it has deliberately undersized the Illinois Rivers Project. Based on ATXI's answers and on Dr. Joskow's paper, it is my conclusion that it is an almost certainty that ATXI will come back in the next 5-30 years and either seek to add an additional circuit, seek to install a parallel transmission line, or seek to repower to a higher voltage the transmission line. This in effect will create a highly undesirable (except from the point of view of ATXI) "Industrial Corridor" directly through the valuable and otherwise productive farmland of Illinois. An example of this "Industrial Corridor is presented in Ragheb Family Exhibit 1.8, Part 5 of 6, Pages 1 and 2. These photographs were taken by the Ragheb Family along I-57 directly south of Peotone, IL, and show one older High Voltage Alternating Current ("HVAC") transmission line and a newer HVAC transmission line that was installed. This is what I fear will happen if the Illinois Rivers Project is approved as currently proposed due to its deliberate undersizing.

Returning to Ragheb Family Exhibit 1.8, Part 4, I wish to note that all three responses provided by ATXI did not list the person responsible for authoring the answer. I therefore inferred that this answer came directly from ATXI's legal counsel. When the ICC Staff inquired as to ATXI's plans for construction within 5 years and 5 miles of any part of the Project, ATXI's Dennis Kramer responded that no plans exist for construction within the 5 years and 5 mile window.

Further evidence for the deliberate undersizing by ATXI lies in the fact that this line is specified to be a 3000 Ampére ("A"), 345 kV transmission line (ATXI Exhibit 1.0, Line 89). An amp multiplied by a volt equals a watt, which is a unit that describes the rate of energy transfer, the purpose of a transmission line. Based on ATXI's supplied values, the Illinois Rivers Project has a rating of 1,035 million watts, or 1,035 megawatts ("MW"). The other similar transmission line currently before the ICC, the Rock Island Clean Line, has specified in its petition that it will operate a 600 kV DC transmission line capable of delivering 3,500 MW of power, implying it will operate at a current of approximately 5830 A. This rating of 3,500 MW, *i.e.* the amount of energy that may be transferred, is 338% that of the Illinois Rivers' proposed transmission lines. To the best of the Ragheb Family's knowledge, other competing projects all propose transmission at 765 kV of alternating current ("AC") or 500 or 600 kV of direct current ("DC").

Q. WOULDN'T A 765 KV AC LINE CARRY ONLY TWICE AS MUCH ENERGY AS A 345 KV AC LINE?

A. No. I will address this point shortly.

Q. OK. PLEASE CONTINUE WITH YOUR DISCUSSION OF EVIDENCE THAT ATXI MAY HAVE DELIBERATELY UNDERSIZED THE ILLINOIS RIVERS TRANSMISSION LINE PROJECT.

A. Thank you. Dr. Joskow continues on to state that the lumpiness may make "investment occur too early when it takes place in order to pre-empt additional entry. [] It could also lead to the investment being 'undersized'. For example if the optimal investment is 600 MW, a merchant developer may find it most profitable to invest in a 300 MW enhancement, pre-empting additional investment." In the case of the Illinois Rivers Project, ATXI, in a non-transparent strategy, has sized their transmission line to be less than one third that of the other line currently with a petition before the Illinois Commerce Commission.

Q. ARE THERE OTHER PROPOSED TRANSMISSION LINE PROJECTS TO MOVE POWER ACROSS ILLINOIS THAT HAVE NOT YET MADE IT TO THE ICC?

A. Yes. According to Ragheb Family Exhibit 1.9, Part 1, there are eight identified other proposed projects in the preliminary stages. The Ragheb Family is cognizant of three of those eight reported projects as mentioned by Illinois State Senator Sue Rezin.

Q. WHAT ARE THOSE THREE PROJECTS WITH WHICH THE RAGHEB FAMILY IS COGNIZANT?

A. We are cognizant of the RITELine transmission project, which is a joint venture between Exelon and American Electric Power Company. This line would consist of 420 miles of 765 kV HVAC transmission line and falls under PJM instead of MISO. Duke American Transmission Company, a joint venture of Duke Energy and American Transmission

Company, has proposed its Projects 2 and 4, which together would comprise 552 miles of 500 kV HVDC transmission line and 189 miles of double circuit 345 kV HVAC transmission line. Finally, there is the Grain Belt Express Clean Line, which would involve 700 miles of HVDC transmission lines capable of delivering 3,500 MW of power.

Q. DOES THE RAGHEB FAMILY STAND TO FINANCIALLY BENEFIT FROM ANY OF THOSE THREE PROJECTS?

A. Not directly, but indirectly. The Ragheb Family stands to benefit solely along with all Illinois ratepayers through the benefits of a properly-sized, unrushed transmission line, if a need is indeed demonstrated. We have no offers of compensation for our testimony in this case, and do not own financial interests or receive compensation for testimony from any of the companies that Ameren seeks to preempt.

Q. LET US RETURN TO THE COMPARISON OF 765 KV AC AND 345 KV AC. HOW MUCH MORE ENERGY CAN A 765 KV AC TRANSMISSION LINE CARRY?

A. To respond to this question, I direct the reader to Ragheb Family Exhibit 1.8, Part 6 of 6, a publicly-available document distributed by the American Electric Power Company, which at the time of its publication owned the largest electricity transmission system in the USA. In “Q11” on Page 3 of 6 of Exhibit 1.8, Part 6, it is stated that six 345 kV circuits would be required to match a 765 kV line in terms of loadability. For distances up to 300 miles, a 765 kV line can deliver 2,200 – 2,400 MW while a 345 kV line can deliver only 400 MW over that distance. The proposed distance for the Illinois Rivers Project is approximately 330 miles according to the Illinois Rivers Project website. It

should be noted that this website provides incorrect and incomplete information, in that they state "Common transmission line voltages include 138,000 volts, 161,000 volts, 230,000 volts and 345,000 volts." No mention is made of 765,000 volt (765 kV), 600 kV, or 500 kV transmission line voltages.

Q. IS THE RIGHT OF WAY FOR A 765 KV AC LINE SIX TIMES THAT REQUIRED FOR A 345 KV LINE?

A. No. As stated in Ragheb Family Exhibit 1.8, Part 6, Page 2, "Q8," the right-of-way width for a 765 kV AC transmission line is 200 feet; as stated in the same location and repeatedly throughout this docket, the right-of-way width for a 345 kV transmission line is 150 feet.

Q. EARLIER YOU MENTIONED DIRECT CURRENT. IS DIRECT CURRENT BETTER THAN, WORSE THAN, OR COMPARABLE TO ALTERNATING CURRENT FOR TRANSMISSION LINES?

A. HVDC is unequivocally superior to HVAC for long distance electrical power transmission. This is one of many reasons I am sure why DATC's Project 2, the Rock Island Clean Line, and the Grain Belt Express correctly propose to use HVDC.

Q. DID ATXI CONSIDER THE USE OF HVDC FOR ANY PORTIONS OF THE ILLINOIS RIVERS PROJECT?

A. No. In their response to the first question of the Ragheb Family's first set of data requests, ATXI through its Director of Transmission Operations Jeffrey V. Hackman stated in response to whether ATXI evaluated HVDC for the Project "No. The planning analysis for the MVP portfolio was performed by MISO. As such, they evaluated the options."

Q. DID MISO CONSIDER THE USE OF HVDC FOR ANY PORTIONS OF THE ILLINOIS RIVERS PROJECT?

A. It does not appear so. MISO considered 345, 2-345, and 765 kV in Illinois and 500 kV only in Minnesota based on information presented on page 226 of MISO's MTEP 2009 Report. MISO did draw two 800 kV HVDC transmission lines running from northern and central Illinois to New York in Fig. 10.3-1 and 3 across Illinois in Fig. 10.3-2, but these were listed as future conceptual plans. It is **very** confusing that the Illinois Rivers Project lines are not shown in MISO's Fig. 10.3-2 "Conceptual Transmission for Renewable Future" while "Facilitate the delivery of renewable energy" is listed as the first bullet point at http://www.ilriverstransmission.com/need.

Q. DID ATXI CONSIDER THE USE OF 765 KV AC FOR ANY PORTIONS OF THE ILLINOIS RIVERS PROJECT?

A. I do not know. However, MISO apparently controls no 765 kV ("600 kV +") lines according to the 2011 NERC Long Term Reliability Assessment data submittals. It does however have 13,117 miles of 300-399 kV lines. Despite the fact that MISO is the fourth largest group behind NPCC, PJM, and SERC in terms of transmission line mileage, it controls 1,623 more miles of 300-399 kV lines than the second place group (NPCC) in this voltage level range. These data suggest that MISO's voltage level portfolio is heavily weighted towards 300-399 kV lines, and this may not be the best solution for the future. Additionally, ATXI stated in ATXI Exhibit 2.0, Page 4 of 29, Lines 79-82 that "ATXI's transmission system interconnects with the Ameren Illinois transmission system at the transmission voltage level. ATXI's transmission system is designed to facilitate movement of large quantities of electrical energy within and across Illinois and therefore

currently operates exclusively at the 345 kV transmission voltage level." Operating exclusively at a single voltage level does not suggest that all or even any viable alternate voltage options were evaluated for the Illinois Rivers Project.

Q. IF INDEED ATXI AND/OR MISO DID NOT CONSIDER HVDC AND/OR A 765 KV SOLUTION TO THE ALLEGED NEED BEHIND THE ILLINOIS RIVERS PROJECT, WOULD YOU, AS AN ENGINEER, CONSIDER THE ANALYSIS TO BE A COMPLETE ONE?

A. Absolutely not. Engineers are expected to evaluate multiple reasonable options, and select the solution that best addresses the requirements at hand. They are also ethically bound by the ethics of their professional societies to seek "informed consent" by the public and people affected by the details of projects. Multiple reasonable options should also have included following existing transmission corridors and undergrounding in Champaign County.

Q. HOW WOULD YOU SUGGEST THE CURRENT SITUATION REGARDING THE ILLINOIS RIVERS PROJECT BE ADDRESSED?

A. First off, I recommend that the "expedited procedures" of this proceeding be ordered abandoned by the ICC.

Q. IS THERE ANY BASIS FOR YOUR RECOMMENDATION OF ABANDONING THE EXPEDITED PROCEDURES?

A. Yes. Illinois State Senator Chapin Rose filed State Bill SB1874 to the 98th General Assembly in hopes of amending the Public Utilities Act to allow a public utility to apply for expedited review of a certificate of public convenience and necessity for any new high voltage electric service line that does not exceed 5 miles in length nor advance

contiguously to a project filed with the Commission during 2012. News reports indicate that "Illinois lawmakers want to slow down the review process for a major electricity line project by Ameren."

Q. WHAT ELSE DO YOU SUGGEST BE DONE IN ADDITION TO ABANDONING THE EXPEDITED PROCEDURES OF ATXI'S PETITION?

A. I respectfully suggest that the ICC place a moratorium on all new transmission line projects until they may all be evaluated against one another and until the legitimate necessity be thoroughly evaluated and considered. This will provide ATXI with time to return the Illinois Rivers Project to its drawing board and reengineer its project from outdated 1800s technology to 21 century modern, effective, reliable, economic and environmentally viable methodologies that would help ATXI turn into the successful power transmission company that it aspires to be. It should adopt the professional ethics principle of "informed consent" by members of the public and adopt transparency in its proposed projects.

Q. IS THERE ANY BASIS FOR THIS SUGGESTION?

A. Yes. Please see a letter addressed to The Honorable Doug Scott, Chairman of the Illinois Commerce Commission from State Senator Sue Rezin as shown in the Ragheb Family Exhibit 1.9, Page 1 of 1. This letter was written in regards to the Rock Island Clean Line petition. The Illinois Rivers Project and the Rock Island Clean Line project are the two major statewide transmission line projects currently under consideration before the Commission.

Additionally and to the best of my knowledge, the State of Iowa has been a pioneer and already adopted a statewide and complete approach to assess all upcoming projects, and

the State of Wisconsin is in the midst of a legislative review of their transmission project policy.

Q. SHOULD ATXI'S ILLINOIS RIVERS PROJECT BE COMPLETELY ABANDONED?

A. No. We suggest that ATXI's Illinois Rivers Project be sent back to the drawing board, and that all options be evaluated by ATXI's engineers. It appears that ATXI engineering staff was subordinate in the presented design to the accountant staff, and that is improper. They were not given the free hand in the "expedited procedure" to come out with a modern-technology world-class design of a project that will be handed down to our children and grandchildren. Once the ATXI engineers have had their say and have improved the proposed project, the Illinois Rivers Project should be re-submitted by ATXI, but made to compete on equal ground against all of the other proposed projects. Thus, any advantage to being a first-mover will be eliminated, and thus, according to the logic of Dr. Joskow, the line will not be deliberately undersized, and the ratepayers and electricity consumers of Illinois will be properly served by the transmission line best suited to their needs, and not purported to be served by a transmission line that best serves the sole interests of the merchant transmission company that is able to get their proposal first in line in view or pre-empting other possibly meritorious proposals. ATXI has an opportunity to become a crown-jewel subsidiary of Ameren and a pride of the USA transmission industry with the adoption of economic, reliable and environmentally sound modern technology for the transmission of both renewable and conventional energy sources. I am also sure that they can come out with a superior design that would

serve the public and be accepted by it on the bassi of the professional ethics principle of "informed consent."

Q. DO YOU HAVE ANY OTHER COMMENTS THAT YOU WOULD LIKE TO MAKE?

A. Yes. I do not believe that Ameren will be affected financially by the postponement of the Illinois Rivers Project aside from losing its first mover status in the attempted preemption and monopoly situation. In Ameren's 2012 Annual Report, it was stated "We are involved in legal and administrative proceedings before various courts and agencies with respect to matters that arise in the ordinary course of business, some of which involve substantial amounts of money. We believe that the final disposition of these proceedings, except as otherwise disclosed in this report, will not have a material adverse effect on our results of operations, financial position, or liquidity. Risk of loss is mitigated, in some cases, by insurance or contractual or statutory indemnification. We believe that we have established appropriate reserves for potential losses."

I wish to include an iminous quotation from page 21 of Ameren's 2012 Annual Report: "Future investments may be affected by changes in FERC policy regarding the utilities' right of first refusal to construct new transmission projects within their service territory. In the future, Ameren may not be able to invest in electric transmission to the extent desired." Ameren and ATXI know that their time to freely build suboptimal transmission lines is short, and they are attempting to squeeze the Illinois Rivers Project in before the opportunity in current laws closes. I respectfully ask the Commission to consider all of the evidence presented here, and to slow down these beginnings of a statewide

transmission line land-grab so that Illinois' ratepayers will be properly served by the right transmission line(s).

On a patriotic note, please allow me to share the view held by the USA global competitors about our outdated power transmission infrastructure. Commenting on the recent situation in the State of New York in late October 2012 following Hurricane Sandy, concerning the low-reliability disaster and failure-prone fragile electrical grid system in the USA that depends on outdated overhead power lines in highly populated areas, the European economic-competitor to the USA view is expressed by Fichtner *et. al.* [Ullrich Fichtner, Hans Hoyng, Marc Hujer and Gregor Peter Schmitz, "Divided States of America: Notes on the Decline of a Great Nation," Der Spiegel, November 5, 2012. http://www.spiegel.de/international/world/divided-states-of-america-notes-on-the-decline-of-a-great-nation-a-865295.html] as:

"The power lines in Brooklyn and Queens, on Long Island and in New Jersey, in one of the world's largest metropolitan areas, are not underground, but are still installed along a fragile and confusing above-ground network supported by utility poles, the way they are in *developing countries*." (emphasis added).

"Large parts of America's biggest city (New York) and millions of people along the East Coast could now be forced to survive for days, possibly even weeks, without electricity, water and heat. Many of the backup generators intended for such emergencies didn't work, so that large hospitals had to be evacuated. On the one hand, these consequences of the storm point to the uncontrollability of nature. On the other hand, they are signs that American is no longer the great, robust global power it once was."

In response to our economic competitors, I am strongly confident that the USA can and will rise to the challenge of reviving its aging infrastructure with modern, safe, reliable, effective and environmentally sound engineering systems. It will remain "the great, robust global power" that it has always been for the benefit of its future generations and the whole world. We have an amazing opportunity here to start that return to the top. Thank you very much for your time and attention.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes. I would like to reserve the right to submit re-direct testimony should the Petitioner dispute my opinions and would be pleased to provide additional testimony in response to any questions from the Illinois Commerce Commission.