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Exhibit No.:
Issue(s): Public Interest, Farming Practices
Witness: Charles Kruse
Sponsoring Party: Neighbors United Against Ameren's Power Line
Type of Exhibit: Rebuttal Testimony
Case No.: EA-2015-0146
Date Testimony Prepared: October 21, 2015

MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. EA-2015-0146

REBUTTAL TESTIMONY
OF
CHARLES KRUSE

ON BEHALF OF
NEIGHBORS UNITED AGAINST AMEREN'S POWER LINE

October 21, 2015

1 **REBUTTAL TESTIMONY**

2
3 **OF**

4
5 **CHARLES KRUSE**

6
7 **OVERVIEW OF AGRICULTURE EXPERIENCE**

8 **Q. Please state your name.**

9 A. My name is Charles Kruse.

10 **Q. Please explain your background and work history.**

11 A. My wife Pam and I are the owners/operators of Charles Kruse Farms, Inc., started
12 in 1976. I am a fourth generation farmer, farming land that my great-grandfather, grandfather,
13 and father farmed before me. I received a BS in Agronomy from Arkansas State University in
14 1967, and an MS in Agronomy with an emphasis in plant genetics from the University of
15 Missouri in 1974.

16 I served as a Research Agronomist for the University of Missouri Delta Research Center,
17 doing research on soybeans and small grains.

18 I was a Technical Representative for BASF Ag, a world-wide company, providing
19 product information and advice to farmers.

20 I was elected by my peers and served on the Missouri Soybean Merchandising Council.

21 I was appointed by Governor John Ashcroft and served as Director of Agriculture for the
22 State of Missouri.

23 I was recruited and served as the CEO of the North American Equipment Dealers Assn.,
24 made up of agriculture and construction equipment dealers in the US and Canada.

1 I was elected for 9 two-year terms by the membership of Missouri Farm Bureau to serve
2 as State President, retiring in December, 2010. During that time I served on both the American
3 Farm Bureau Board of Directors and the American Farm Bureau Executive Committee.

4 I received the Distinguished Alumni Award from both Arkansas State University and the
5 University of Missouri and the Outstanding Service to Agriculture Award from the Missouri
6 Farm Bureau.

7 Distinguished Service Award from American Farm Bureau

8 **Q. On whose behalf are you filing testimony?**

9 A. I am filing testimony on behalf of Neighbors United Against Ameren's Power
10 Line. I will address the farming implications should the Commission approve ATXI's
11 application and whether ATXI's project is in the public interest.

12 ISSUES REGARDING NEGATIVE IMPACTS TO FARMING AND LAND

13 **Q. Please explain the issue of soil compaction and how it relates to ATXI's**
14 **application.**

15 A. Soil compaction is a very serious problem in Agriculture today. Farmers and
16 Ranchers spend a lot of time and money to prevent soil compaction from adversely affecting
17 their crops and pastures. Soil compaction can result in stunted growth of plants, impede the
18 uptake of plant nutrients, and cause an adverse effect on plant growth and development. Soil
19 compaction is made much worse by heavy equipment moving over the land, and when the
20 equipment is used during wet conditions, the compaction issues become much worse. Without
21 question, if ATXI's effort were to move ahead, there would be very significant soil compaction,

1 both due to the heavy equipment moving over the land and the disregard for wet soil conditions
2 that would make soil compaction much worse.

3 **Q. Please explain the issue of irrigation equipment interference and how it**
4 **relates to ATXI's application.**

5 A. Irrigation, out of necessity, has become much more prevalent over the past several
6 years. In Missouri, the two most prevalent types of irrigation are flood irrigation and center
7 pivot irrigation. With flood irrigation, the land is shaped so there is a slight grade, and the
8 irrigation water is then run between the rows of crop. With center pivot irrigation, a large
9 structure moves in a circle around the field, distributing water on the crop as it moves. The
10 proposed route for the ATXI project has land that, because of topography, is much more
11 conducive to center pivot irrigation. The structures that are being proposed by ATXI would
12 make it an impossibility to irrigate the fields impacted by these structures. In my opinion,
13 timely moisture is the greatest variable to maximizing crop production. The inability to irrigate
14 as a result of the ATXI structures would dramatically reduce the potential for this land, thereby
15 reducing the land value significantly, as a result of the diminished productivity potential.

16 **Q. Please explain the issue of aerial applications to crops and pastures and how**
17 **it relates to ATXI's application.**

18 A. Aerial applications in agriculture are increasing every year. Herbicides,
19 fungicides, insecticides, and other materials are applied aurally to a greater extent than ever
20 before. While the ATXI structures would create obvious hazards for low-level flying, the
21 structures would also create serious impediments to being able to uniformly apply the product,

1 and some areas of the field simply would not be treated. This would adversely impact the
2 potential profit picture for these fields. In the case of severe insect infestations, the untreated
3 areas would allow the insects to thrive, creating the necessity for repeated applications of
4 insecticides as the insects spread over large areas of the fields. As a result, costs would be
5 greater and at the same time, profit potential would be diminished.

6 **Q. Please explain the issue of GPS interference and how it relates to ATXI's**
7 **application.**

8 A. Farmers and Ranchers are utilizing GPS at a greater level than ever. GPS is used
9 to guide equipment so that rows are straight and uniform, herbicides are not overlapped, fertilizer
10 applications are uniform with no double-applications or skipped spots. GPS is very important
11 for both row-crop and pasture land. It has been shown that numerous structures such as ones
12 proposed by ATXI can have an adverse effect on receiving satellite signal and thereby causing
13 serious problems for agriculture.

14 **Q. Please explain the issue of maneuvering large farm equipment around large**
15 **infrastructure and how that relates to ATXI's application.**

16 A. By necessity, farm equipment continues to get larger. Fifty years ago, a four-row
17 planter was considered large. Today, it is not uncommon for farmers to have 24-row planters or
18 larger. Spray booms can be 120 feet wide. It is not unusual for tillage equipment to be 35-40
19 feet wide.

20 Combine grain headers can be 45 feet wide. With all the large equipment used today, it
21 is a nightmare to try to maneuver around obstacles such as the ones ATXI is proposing. A very

1 high percentage of these obstacles would traverse farmland at an angle, which makes the
2 maneuverability problem even worse.

3 **Q. Please explain the issue of precision farming and how it relates to ATXI's**
4 **application.**

5 A. Precision farming has become very popular in recent years. Precision farming is
6 simply utilizing technology to, for example, apply optimum amounts of fertilizer to small areas
7 of fields based on intensive soil testing instead of applying the same rate of fertilizer to the entire
8 field. This practice is not only more cost-effective, it also eliminates the practice of over-
9 fertilizing some areas of fields. The ATXI project would make it much more difficult to utilize
10 precision farming practices. Again, the fact that the proposed structures would traverse fields at
11 an angle would make precision farming extremely difficult.

12 **Q. Please explain the issue of storm recovery and how it relates to ATXI's**
13 **application.**

14 A. As much as we would hope that our state never has storms that damage property
15 that has not, and will not in the future, be the case. In the event of a storm that topples some of
16 these ATXI structures, agriculture would experience substantial damage. Whether livestock or
17 crops, the potential for significant losses would be high. The immediate loss of crops and
18 livestock would be bad enough, but the moving of large equipment across fields and pastures to
19 recover the structures and lines would cause much greater damage. There is a very high
20 probability that the ground will be very wet and that will, of course, cause many problems—
21 great damage to crops and pastures, severe rutting and soil compaction.

EMINENT DOMAIN

1
2 **Q. Please explain the issue that exists with the use of eminent domain to**
3 **condemn private property and how it relates to the properties and farmlands at issue in**
4 **this case and ATXI's application.**

5 A. During the time I served as Missouri Farm Bureau President, we saw a lot of
6 abuses of eminent domain. We, as an organization, decided to try to pass stronger eminent
7 domain legislation, which we were successful in doing. One of the aspects of this legislation was
8 that eminent domain could not be used solely for economic development. That part of the law,
9 in my opinion, makes the ATXI effort a non-starter. Additionally, eminent domain is supposed
10 to be used in Missouri to further the public good of our citizens. In my opinion, ATXI'S plan
11 provides very minimal public good for the citizens of Missouri. The negative impact of this
12 project on the citizens of Missouri far outweighs any minimal positive impact.

13 Furthermore, as I understand this proposed project, there remain so many unknowns,
14 uncertainties, and blanks to be filled in. In the best interests of the people of the State of
15 Missouri, the PSC should deny ATXI's application request. To approve this project to allow
16 ATXI to seek such a massive amount of eminent domain is unwarranted, unjust, and goes against
17 what I believe to be the mission of the Missouri Public Service Commission.

18 **Q. Does this conclude your testimony.**

19 A. Yes it does. Thank you.