

2/21/19 *ELG TX*

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of Transource Pennsylvania, LLC :
for approval of the Siting and Construction of the : Docket No. A-2017-2640195
230 kV Transmission Line Associated with the : Docket No. A-2017-2640200
Independence Energy Connection - East and West :
Projects in portions of York and Franklin Counties, :
Pennsylvania. :

SURREBUTTAL TESTIMONY

OF

DOLORES KRICK

On Behalf of

**Citizens to STOP Transource
(York County)**

RECEIVED
FEB 26 2019
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

January 30, 2019
As revised February 18, 2019

1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Dolores Krick. My business address is 699 Frosty Hill Road, Airville, PA
4 17302.

5 **Q. BY WHOM ARE YOU EMPLOYED?**

6 A. With my husband, I am part owner of Muddy Creek Meadows Riding Stable. I am also
7 President of S.J. Krick & Co., Inc. and a part owner of Krick's Apartments.

8 **Q. ON WHOSE BEHALF ARE YOU PROVIDING THIS TESTIMONY?**

9 A. I am testifying on behalf of Citizens to STOP Transource ("Citizens"), which is a
10 501(c)(4) organization with a principal office located at 251 East Maple Lawn Road,
11 New Park, PA 17352. Each member of Citizens is a landowner, which would be affected
12 by the Independence Energy Connection-East Project ("IEC-East" or "project") in York
13 County, Pennsylvania proposed by Transource Pennsylvania, LLC ("Transource PA" or
14 "Transource").

15 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?**

16 A. Yes. I testified during public input hearings and site visits held in this proceeding.

17 **Q. WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

18 A. The purpose of this Surrebuttal Testimony is to refute certain portions of Rebuttal
19 Testimony offered by Transource PA. Specifically, I address the Rebuttal Testimony of
20 the following Transource PA witnesses: Barry Baker (preserved farmlands, natural
21 environment, local viewshed and agricultural impacts); Kent M. Herzog (effect on
22 farming); Thomas Schaffer (landowner interactions); James H. Cawley (regional
23 transmission planning); Judy Chang (economic benefits); David Ray Dominy (impact on

1 property values); J. Michael Silva (effect of EMF exposure on animals); Nancy C. Lee
2 (effect of EMF exposure on humans); and H. Dwight Mercer (effect of EMF exposure on
3 animals).

4 **II. RESPONSES TO REBUTTAL TESTIMONY**

5 **(A) Barry Baker**

6 **Q. WHAT DOES MR. BAKER SAY ABOUT THE USE OF PRESERVED**
7 **FARMLAND?**

8 A. Mr. Baker acknowledges that preserved farmland is ubiquitous across the study area.
9 Transource Statement No. 4-R at 8.

10 **Q. WHAT IS THE SIGNIFICANCE OF THIS POINT?**

11 A. This point is significant because it demonstrates a fundamental flaw in IEC-East. Given
12 the efforts that landowners have undertaken and the sacrifices they have made to preserve
13 farmlands, a project that seeks to cross significant acres of preserved farmland should not
14 be considered or approved.

15 **Q. WHAT DOES MR. BAKER SAY ABOUT IMPACTS ON PUBLIC NATURAL**
16 **RESOURCES?**

17 A. Mr. Baker claims that Transource PA engaged in an effort to identify public natural
18 resources and sought to avoid or minimize impacts to these resources. Transource
19 Statement No. 4-R at 10-12.

20 **Q. HOW DO YOU RESPOND?**

21 A. Regardless of any measures that Transource PA may have taken to minimize impacts to
22 public natural resources, the fact remains that many of the public natural resources in
23 York County would be significantly and adversely affected. Testimony at the public input
24 hearings and site visits is replete with examples of these effects.

1 **Q. DOES MR. BAKER ALSO ADDRESS THE EFFECTS OF THE PROJECT ON**
2 **THE NATURAL AND SOCIAL ENVIRONMENT?**

3 A. Yes. Mr. Baker also addresses the effects of the project on the natural and social
4 environment and suggests that Transource sought to minimize impacts to land use, soil,
5 sedimentation, plant and wildlife habitats, terrain, hydrology, landscape, scenic areas and
6 wilderness areas. Additionally, Mr. Baker testifies that Transource met with county and
7 local municipal leaders to get their input on the potential concerns of landowners, which
8 information he claims was incorporated into the process. Transource Statement No. 4-R
9 at 15.

10 **Q. DO YOU HAVE A RESPONSE?**

11 A. Yes. Regardless of any measures that Transource may have taken to minimize the effects
12 of the project on the natural and social environment, the fact remains that the natural and
13 social environment in York County will be significantly and adversely affected.

14 Additionally, Mr. Baker provides no detail about the input that Transource received from
15 county and local municipal leaders regarding the concerns of landowners or how the
16 information was incorporated into the process. Therefore, this portion of his testimony
17 should be disregarded. Importantly, to my knowledge, no contact has been made with
18 landowners by local leaders. If they made comments to Transource, it would have been
19 their own personal opinion, not the views of the landowners. In fact, one township
20 supervisor testified at the public input hearing in opposition to the project.

21 **Q. WHAT DOES MR. BAKER SAY ABOUT MINIMIZING POTENTIAL IMPACTS**
22 **ON THE NATURAL ENVIRONMENT?**

23 A. Mr. Baker generally testifies that Transource sought to identify a path that minimized
24 forest clearing, crossed fewer streams and wetlands, and avoided known wilderness or

1 natural areas. Transource Statement No. 4-R at 16. Specifically with respect to the North
2 Branch Muddy Creek Natural Area Site, Mr. Baker described its crossing as
3 “unavoidable” for the project and identified forest clearing that would be required. Mr.
4 Baker acknowledged that “Muddy Creek valley is home to several animal and plant
5 species,” but suggested that the project “should not impact any of protected species of
6 concern identified by the federal and state agencies.” Transource Statement No. 4-R at
7 16-17. He provides similar testimony about the impact on wildlife corridors, and while
8 conceding that the project will result in the clearing of some forested areas that border
9 streams, he believes that vegetation within the deeper stream valleys may be untouched.
10 Transource Statement No. 4-R at 17-18. He went on to describe various impact
11 mitigation strategies, discussing the efforts without offering anything to substantiate his
12 suggestions of minimal impacts. Transource Statement No. 4-R at 18-22.

13 **Q. HOW DO YOU RESPOND?**

14 A. Making efforts to hopefully avoid negative impacts on the natural environment is
15 insufficient in a context where Transource has the burden of proving that the project is in
16 the public interest. Mr. Baker’s testimony is full of speculation and expectations, which
17 are simply not supported by any empirical evidence.

18 **Q. DOES MR. BAKER ADDRESS THE IMPACT OF THE PROJECT ON THE**
19 **LOCAL VIEWSHED?**

20 A. Yes. Mr. Baker concedes that the project would result in “new visual impacts to the
21 surrounding land owners and communities near the line.” He then testifies that where
22 possible, Transource sought to align the route farther from areas of high visibility, but
23 opined that the project the “agricultural viewsheds which dominate the area.” Mr. Baker

1 also refers to the fact that existing transmission lines are already present. Transource
2 Statement No. 4-R at 25-26.

3 **Q. WHAT IS YOUR RESPONSE?**

4 A. Regardless of any efforts that Transource may have undertaken to align the route farther
5 from areas of high visibility, the project would significantly and adversely affect the local
6 viewshed. The testimony at the public input hearings and site visits is replete with
7 examples of these effects. The very fact that agricultural viewsheds dominate the area
8 supports Citizens' position that the project should be built elsewhere. Moreover, rather
9 than recognize that this area has already done its part to support the transmission needs of
10 the region, Mr. Baker seems to suggest that since other transmission lines are already in
11 this area, what harm is there in one more? As described above, significant harm to the
12 local viewshed would result from the construction of yet another transmission line.

13 **Q. DOES MR. BAKER TESTIFY ABOUT AGRICULTURAL IMPACTS?**

14 A. Yes. Mr. Baker suggests that Transource sought to mitigate the impacts on agricultural
15 land, but recognizes the difficulty with doing that when it is the dominant land use type in
16 this area. Mr. Baker also acknowledges that the project will cross properties that are
17 preserved under the agricultural conservation easement program, but seeks to minimize
18 that concern by noting that it crosses fewer acres of conserved farm land relative to other
19 options that were evaluated. Transource Statement No. 4-R at 26-28.

20 **Q. HOW DO YOU RESPOND?**

21 A. Regardless of what efforts Transource may have undertaken to minimize the impacts of
22 the project on agricultural land, the fact remains that the project would have significant
23 and adverse impacts on agricultural land. The testimony at the public input hearings and

1 site visits is replete with examples of these effects. Even from Mr. Baker's testimony, it
2 is clear that Transource has targeted farm land, open land and land that it considers
3 underdeveloped. This land is open for farmers to make a living, not an invitation for
4 utilities to construct power lines. Mr. Baker's acknowledgement of agriculture as the
5 dominant land use type in this area is reason alone to deny construction of the project.
6 Especially for a project that is proposed to enhance "market efficiency," it is imperative
7 that an area be selected where agriculture is not the dominant land use type, particularly
8 when preserved farmlands are at stake. Merely because fewer acres of conserved land
9 would be affected than if other routes were chosen does not make it right to cross any
10 acres that are preserved under the agricultural conservation easement program.

11 **Q. DOES MR. BAKER DISCUSS THE IMPACT ON PRIME FARMLAND SOILS?**

12 A. Yes. Mr. Baker describes measures taken by Transource in an effort to minimize the
13 impact on prime farmland soils. He specifically points to the use of steel monopoles,
14 where practicable, instead of the lattice tower design. Mr. Baker also suggests that
15 Transource will work with landowners post-construction to restore the productivity of
16 these areas either by replacing the topsoil or implementing de-compaction processes.

17 Transource Statement No. 4-R at 29-30.

18 **Q. PLEASE RESPOND.**

19 A. Regardless of any measures that Transource may have undertaken to minimize the impact
20 on prime farmland soils, the project would significantly and adversely affect prime
21 farmland soils. While steel monopoles would likely have lesser impact than the lattice
22 tower design, these impacts would still be significant. Also, Mr. Baker's suggestion that
23 Transource will work with landowners post-construction to restore the productivity of

1 these areas provides no consolation. Given the way that Transource has interacted with
2 landowners to date and the fact that it would be in “post-construction” mode, I have no
3 expectation of receiving any cooperation or assistance from Transource. Moreover, even
4 if productivity would eventually be restored, that would not change the fact that during
5 construction, those prime farmland soils were unusable.

6 **Q. DOES MR. BAKER ADDRESS THE IMPACT OF THE PROJECT ON**
7 **AGRITOURISM AND THE VIEWSHED?**

8 A. Yes. Mr. Baker acknowledges that the viewshed will change in ways that are evident to
9 the local inhabitants who have the historic vision of the landscape. He suggests,
10 however, that the addition of the project would not dramatically alter the character of the
11 broader landscape, which already contains “an array of existing electric transmission line
12 infrastructure.” Transource Statement No. 4-R at 30-31. Mr. Baker further claims that
13 many examples exist of nurseries, farm markets and pick-your-own orchards that are
14 bordered by and crossed by transmission lines and/or gas pipelines that have successfully
15 been in business for decades. Transource Statement No. 4-R at 31.

16 **Q. WHAT IS YOUR RESPONSE?**

17 A. Mr. Baker is making two points that Citizens has been making throughout this
18 proceeding. First, the project will forever change the scenic and historic viewshed in the
19 area where the transmission line would be constructed. Second, this area has already
20 done its part in terms of supporting the transmission needs of the region. Enough is
21 enough. As to his examples of other agritourism that has succeeded despite being
22 bordered by and crossed by transmission lines and/or gas pipelines, Mr. Baker is failing
23 to acknowledge or appreciate the uniqueness of the area that Transource has targeted in
24 York County for this project. City tourists come to the country for the unique views and

1 pristine undisturbed farm land. The proposed line would obliterate this view and
2 adversely affect the businesses that rely on it to promote their goods and services.

3 **Q. DOES MR. BAKER MAKE ANY OTHER CLAIMS THAT YOU WISH TO**
4 **ADDRESS?**

5 A. Yes. Mr. Baker testifies that “Transource PA feels that transmission line corridors are a
6 common element in the landscape and that the presence of these features does not
7 diminish the scenic aspects of an area for visual enjoyment from public rights of way.”
8 Transource Statement No. 4-R at 37.

9 **Q. HOW DO YOU RESPOND?**

10 A. As an initial matter, I am not aware that a corporation can have feelings. However, to the
11 extent that Mr. Baker is expressing his own personal feelings, he is wrong. The proposed
12 project would wholly diminish the scenic aspects of southern York County. The
13 outpouring of opposition from the local community shows how the construction of
14 another transmission line corridor would adversely affect the landscape in a damaging
15 and permanent way.

16 **(B) Kent M. Herzog**

17 **Q. DOES MR. HERZOG ADDRESS THE EFFECT OF THE PROJECT ON**
18 **FARMING?**

19 A. Yes. Mr. Herzog responded to the testimony offered by several witnesses at the public
20 input hearings about the negative effects of the project on farming, including orchard
21 operations. He claims that farming and transmission lines have co-existed since the early
22 development of the transmission grid and that it is common for farm operators to plant
23 and harvest up to the base of transmission structures. Specifically, with respect to
24 orchard operations, he testifies that woody vegetation that grows to be 15 feet or less are

1 allowed within the right of way, which he says would allow for the majority of orchard
2 operations to safely co-exist. He further states that if trees are taller, Transource will
3 incorporate additional clearance into the design of the transmission line. Transource
4 Statement No. 5-R at 1-2.

5 **Q. DOES MR. HERZOG'S TESTIMONY ADEQUATELY ADDRESS THE**
6 **CONCERNS RAISED BY WITNESSES ABOUT THE NEGATIVE EFFECTS OF**
7 **THE PROJECT ON FARMING?**

8 A. No. The testimony of witnesses at the public input hearings was not focused on the size
9 of the trees but rather on the negative impacts on farming, including orchard operations.
10 Simply pointing out that farming and transmission lines have co-existed for years does
11 not address the specific concerns raised by farmers at the public input hearings. Also, a
12 commitment by a lone witness in the rebuttal phase of this proceeding that Transource
13 will incorporate additional clearance if needed should not be relied on by the
14 Commission to allow this project to move forward.

15 **Q. DOES MR. HERZOG ADDRESS THE USE OF MONOPOLE STRUCTURES?**

16 A. Yes. He indicates that the monopole structures that will be used for the project minimize
17 the amount of land that is actually used for the transmission lines compared to other
18 structure designs. Mr. Herzog further states that the distance between poles (113 feet to
19 918 feet) is sufficient to allow large farming equipment to move between the structures.
20 Transource Statement No. 5-R at 3.

21 **Q. DO YOU HAVE A RESPONSE?**
22

23 A. While monopole structures are preferable to other structure designs, in terms of farming
24 operations, the fact remains that their existence on farms will significantly and adversely

1 affect farming operations. From my research,¹ I am aware that as farm machinery gets
2 bigger, more incidents of farm equipment striking poles or snagging overhead lines are
3 occurring, and that these collisions can be dangerous and costly. Also, according to the
4 article linked in footnote one, electrocution and electric accidents, including power line
5 incidents, are a significant factor in on-farm deaths. This occurs because there is an
6 economic incentive for farmers to maneuver as close as possible to electric infrastructure
7 in order to keep every bit of land they have in production and generating revenue. But, if
8 they damage the lines, they can be billed by the utility, which can easily run several
9 thousand dollars. Anyone that farms knows that maneuvering the machinery is a
10 challenge without the added complication of power lines.

11 *(C) Thomas Schaffer*

12 **Q. WHAT IS THE PRIMARY TOPIC OF MR. SCHAFFER'S REBUTTAL**
13 **TESTIMONY?**

14 A. Mr. Schaffer testifies about Transource's interactions with landowners, explaining that
15 the approach to these interactions is described in its Internal Practices for Dealing with
16 the Public on Power Line Projects, which is Attachment 13 to the Siting Application. He
17 claims that "Transource PA strives to be honest and act in good faith with landowners."
18 Transource Statement No. 6-R at 1-2. Mr. Schaffer further suggests that in most cases,
19 "the negative interaction is the result of a misunderstanding" and that it makes additional
20 information available in these situations. Transource Statement No. 6-R at 2. He also
21 explains what Transource does when it learns of a negative interaction between one of its

¹ <https://www.mprnews.org/story/2014/10/21/farm-equipment-power-line-accidents>

1 representatives and a landowner and describes some of the key elements of its internal
2 practices. Transource Statement No. 6 at 2-3.

3 **Q. PLEASE RESPOND.**

4 A. While Transource may have an approach to interactions with landowners that is
5 documented in a manual, landowners have been subjected to numerous instances of
6 negative interactions, including situations of dishonesty and acting in bad faith. Attached
7 as Citizens Exhibit No. 1 is a letter stating that many landowners had already granted
8 Transource access to the property to conduct surveys. That was an untrue statement, as
9 the opposite is actually true. In other instances, agents who were seeking permission and
10 right-of-ways told landowners that many of their neighbors had already consented when
11 in fact only one has signed to this day, of which I am aware. As Transource prepares to
12 conduct drill tests on the land, the agents are telling landowners that they only have to
13 give 24-48 hours' notice, when Section 309 of the Eminent Domain Code plainly states
14 they are required to give 10 days' notice.² Also, I note that Mr. Schaffer does not suggest
15 that any landowners received apologies as a result of a "misunderstanding." Nor does he
16 provide any data to quantify the number of negative interactions that have been reported,
17 offer any detail about the nature of the so-called misunderstandings or explain what
18 additional information was subsequently provided to the landowner. It is also telling that
19 Mr. Schaffer does not describe any disciplinary procedure that Transource has in place,
20 much less discuss any actions that have been taken.

² 26 Pa. C.S. §309(b).

1 **Q. DOES MR. SCHAFFER ALSO PROVIDE AN UPDATE ON THE STATUS OF**
2 **THE ACQUISITION OF NECESSARY LAND RIGHTS FOR THE**
3 **CONSTRUCTION OF THE PROJECT?**

4 A. Yes. Mr. Schaffer reports that as of November 20, 2018, easement agreements have been
5 secured with 47 Pennsylvania land owners, who collectively own 55 parcels and make up
6 approximately 151 acres of easement area to construct the project, if approved. He
7 further notes that Transource representatives continue to negotiate with landowners.
8 Transource Statement No. 6-R at 4.

9 **Q. HOW DO YOU RESPOND?**

10 A. In York County, it is my understanding that 41 out of 42 landowners have continued to
11 withhold their agreement to an easement. I believe this shows a strong solidarity among
12 landowners who are committed to preserving their farmlands, their businesses, the
13 viewshed, the environment and natural resources.

14 **Q. DOES MR. SCHAFFER ADDRESS CHANGES THAT TRANSOURCE HAS**
15 **MADE IN RESPONSE TO LANDOWNER REQUESTS?**

16 A. Yes. Mr. Schaffer provides examples of changes that Transource has made in response to
17 landowner requests. Transource Statement No. 6-R at 5-6.

18 **Q. PLEASE RESPOND.**

19 A. I note that Mr. Schaffer's examples are devoid of any information about where the
20 properties are located. Therefore, it is not clear whether any of the changes occurred
21 within York County. Also, I should add that in many instances, a simple shift in the line
22 of the nature described in Mr. Schaffer's testimony would not be effective in addressing
23 the overarching concerns expressed by the affected landowners that comprise Citizens.
24 When asked by landowners if Transource could move the line, representatives indicated

1 that they could but that they were drill testing the original spots anyway. That leads me to
2 believe they will not move it.

3 **Q. DO YOU HAVE ANY OTHER OBSERVATIONS?**

4 A. Yes. The handouts distributed by Transource to landowners contain no instructions about
5 how to handle problems with land agents or Transource representatives. See Citizens
6 Exhibit No. 2. Also, Transource's Code of Conduct lists no such contacts.

7 *(D) James H. Cawley*

8 **Q. WHAT IS THE FOCUS OF MR. CAWLEY'S REBUTTAL TESTIMONY?**

9 A. Mr. Cawley's Rebuttal Testimony offers an opinion concerning PJM's expertise in
10 transmission system planning, including its cost/benefit analysis for market efficiency
11 projects, and regarding the importance of regional transmission planning. Transource
12 Statement No. 9-R at 2.

13 **Q. DOES MR. CAWLEY REFER TO A PROVISION IN THE PUBLIC UTILITY**
14 **CODE TO SUPPORT HIS VIEWS ON THE IMPORTANCE OF REGIONAL**
15 **TRANSMISSION PLANNING?**

16 A. Yes. Mr. Cawley refers to Section 2805 of the Public Utility Code in arguing that the
17 statute envisions regional transmission planning, without regard for whether there are any
18 benefits to Pennsylvania's residents and businesses. Transource Statement No. 9-R at 7-
19 10.

20 **Q. DO YOU HAVE ANY OBSERVATIONS ABOUT THIS PORTION OF HIS**
21 **TESTIMONY?**

22 A. Yes. Although I am not a lawyer, I have read Section 2805 of the Public Utility Code, as
23 well as Mr. Cawley's interpretation of this statutory provision, and I have two
24 observations. First, Mr. Cawley went through a rather lengthy analysis in an effort to
25 support the notion that Section 2805 envisions regional transmission planning without

1 regard for whether there are any benefits to Pennsylvania’s residents and businesses. It
2 seems that if the General Assembly wanted to say what Mr. Cawley claims the law says,
3 it could have done so clearly without necessitating this complicated interpretation. Quite
4 simply, it does not say what Mr. Cawley claims it says. Second, I note that the law
5 actually does say that the whole purpose of the steps that the Commission is required to
6 take is to “ensure the continued provision of adequate, safe and reliable electric service to
7 the citizens and businesses of this Commonwealth.” 66 Pa.C.S. § 2805(a). Given that
8 Transource has advanced no need for the project to provide adequate, safe and reliable
9 electric service to the citizens and businesses of this Commonwealth, Mr. Cawley’s
10 reliance on this statutory provision appears to be misplaced.

11 **Q. REGARDLESS OF THE CORRECT INTERPRETATION OF SECTION 2805 OF**
12 **THE PUBLIC UTILITY CODE, DO YOU DISAGREE WITH THE NOTION OF**
13 **REGIONAL TRANSMISSION PLANNING?**

14 A. Not at all. I agree with the notion of regional transmission planning and recognize the
15 importance of that process in ensuring that the entire region enjoys adequate, safe and
16 reliable electric service. However, it is important to emphasize that the project has been
17 proposed to enhance market efficiency and is not necessary – in Transource’s own words
18 – to ensure that the region enjoys adequate, safe and reliable electric service.

19 **Q. DOES MR. CAWLEY ALSO DISCUSS FERC’S ROLE IN THIS PROCESS?**

20 A. Yes. Mr. Cawley discusses FERC’s role in establishing a regional transmission planning
21 process. Transource Statement No. 9-R at 11-13.

1 **Q. DO YOU HAVE ANY COMMENTS ABOUT FERC'S ROLE?**

2 A. Yes. I note that FERC has not approved the policy that Transource has implemented for
3 this market efficiency project. To the contrary, it is my understanding that FERC merely
4 accepted the tariff, allowing into go into effect.³

5 **Q. HOW HAS MR. CAWLEY CHARACTERIZED THE THINKING OF**
6 **OPONENTS OF THE PROJECT?**

7 A. Mr. Cawley has characterized the thinking of the project's opponents as "parochial,"
8 "self-interested," and "provincial." Transource Statement No. 9-R at 13-14.

9 **Q. HOW DO YOU RESPOND?**

10 A. Landowners from York County have repeatedly testified that if the project was needed
11 for reliability reasons and no other reasonable alternatives existed, they would not be in
12 this proceeding – spending their personal retirement and college funds and committing
13 vast amounts of their valuable personal time – to oppose construction of this high voltage
14 transmission line. But, other reasonable alternatives do exist, in the form of currently
15 underutilized lines running through the area. Frankly, given the way that the landowners
16 of York County have united and organized their efforts to oppose the project shows the
17 depth of their commitment to preserve the entire area's farmlands, businesses,
18 environment, natural resources and viewshed – not only for their families but for future
19 generations and for visitors to the region. Their attitudes are far from "parochial," "self-
20 interested" and "provincial."

³ <https://elibrary.ferc.gov/idmws/common/OpenNat.asp?fileID=13524152>

1 (E) Judy Chang

2 Q. **WHAT IS THE SUBJECT OF MS. CHANG'S REBUTTAL TESTIMONY?**

3 A. Ms. Chang's Rebuttal Testimony is offered to describe economic benefits that she
4 believes the project will provide. Transource Statement No. 10-R at 2.

5 Q. **DOES MS. CHANG SPECIFICALLY ADDRESS EMPLOYMENT AND
6 ECONOMIC STIMULUS BENEFITS TO THE LOCAL ECONOMY IN
7 FRANKLIN AND YORK COUNTIES, THE REST OF PENNSYLVANIA AND
8 MARYLAND?**

9 A. Yes. Ms. Chang suggests that the project will support between 74 and 93 jobs; generate
10 between \$25.6 million and \$29.6 million in economic activity in Pennsylvania; and create
11 between \$530,000 and \$660,000 in tax revenue for state and local governments within
12 Pennsylvania. Transource Statement No. 10-R at 3, 13. Specifically for York County,
13 Ms. Chang projects the creation of 15 to 21 jobs; economic activity in the amount of
14 \$7,100,000 to \$8,300,000 and state and local tax revenue of \$110,000 to \$140,000.
15 Transource Statement No. 10-R at 26-27.

16 Q. **HOW DO YOU RESPOND?**

17 A. I believe that Ms. Chang has grossly overstated any potential employment and economic
18 stimulus benefits to the local economy in Franklin and York Counties, the rest of
19 Pennsylvania and Maryland. Largely, this occurred due to incorrect assumptions made
20 by Ms. Chang with respect to the ability of these areas, particularly York County, to
21 support the additional business that the project might bring. She also failed to consider
22 the temporary nature of any benefits and the offsetting costs and losses that the area
23 would incur.

1 **Q. PLEASE EXPLAIN.**

2 A. For example, Ms. Chang considers revenues that would be generated for food and
3 beverage stores, full-service restaurants, limited-service restaurants and hotels.

4 Transource Statement No. 10-R at 25. However, in this analysis, she does not evaluate
5 whether sufficient businesses are available in York County to provide these services,
6 even if they are demanded. Also, she fails to acknowledge that any additional demands
7 for such services would be short-term and therefore not provide incentives for the
8 opening of new businesses. To the extent that such new businesses do open, they will
9 face downturns immediately upon completion of the project and will likely have to close
10 their doors. Then our area will be left with even more eyesores – abandoned businesses.
11 As to any jobs that are created, they will be temporary; yet the project will permanently
12 destroy far more jobs. For example, Maple Lawn Farms alone employs over 100 people
13 each season. With respect to any additional tax revenue, I note that her projections are
14 speculative and fail to take into consideration additional costs that will be incurred by
15 local government, such as repair to damaged roads from the increased truck and other
16 traffic.

17 *(F) David Ray Dominy*

18 **Q. DID TRANSOURCE PRESENT REBUTTAL TESTIMONY REGARDING THE**
19 **IMPACT OF THE PROJECT ON PROPERTY AND REAL ESTATE VALUES?**

20 Yes. Mr. Dominy offered Rebuttal Testimony that summarized the conclusions in
21 published real estate appraisal literature concerning the impacts of transmission lines on
22 real estate prices; summarized prior research by his firm regarding the impact of
23 transmission line corridor easements on agricultural land prices; summarized prior
24 research by his firm into the effect of transmission lines on adjacent home prices; and

1 analyzed the research and conclusions in the Wyman and Mothorpe 2018 Study.
2 Transource Statement No. 14-R at 4. He concluded that the impacts of high voltage
3 transmission lines “are by no means consistent and cannot be assumed to negatively
4 affect nearby properties.” Transource Statement No. 14-R at 9.

5 **Q. HOW DO YOU RESPOND TO THESE CONCLUSIONS OF MR. DOMINY?**

6 A. His conclusions are directly contrary to those that are set forth in the Wyman and
7 Mothorpe 2018 Study, which involved properties that are more similarly situated to the
8 farmlands in York County than those studied by his firm.

9 **Q. DID MR. DOMINY PRESENT CASE STUDIES TO SUPPORT HIS**
10 **CONCLUSIONS?**

11 A. Yes. Mr. Dominy presented ten case studies in an effort to support his conclusions.
12 Transource Statement No. 14-R at 10-17. Specifically, he studied properties in the
13 following contexts for non-land home values:

- 14 1) Single family homes in Allentown; these homes had an existing power line that was
15 upgraded nearly 40 years ago.
- 16 2) Single family homes in Hopewell Township (Western Pennsylvania); these homes
17 were part of a large subdivision, with about 150 homes. The subdivision is located in
18 a relatively flat area that does not provide long views. Most of the homes cannot see
19 the power lines. Mr. Dominy does not claim that the 500 feet value he selected for
20 his analysis has any correlation with visibility of the power line. The subdivision is
21 near the Ohio River just downstream from Pittsburgh in an area where subdivisions
22 are nearly the only home option.
- 23 3) Single family homes in Saw Creek Estates Subdivision, Pike County, Pennsylvania;
24 this community contains over 3,000 homes in a heavily wooded rural area. The
25 analysis done by Mr. Dominy was done before the power lines had been constructed.
26 It is possible that many of the buyers were unaware of the lines, or believed correctly
27 that they would not be visible because of the heavy forest cover and topography.
- 28 4) Single family homes, Orange, Connecticut; this property also simply involved an
29 existing line that was upgraded. According to Wikipedia, the density of people in
30 Orange is 770 people per square mile.

1 5) Single family homes, Sugar/River Ridge subdivision, South Elgin, Illinois; these
2 large subdivisions are located in the Chicago Metro Area. This is a densely populated
3 area just west of O'Hare International Airport.

4 6) Coventry Townhomes, Lake in the Hills, Illinois; this is a large subdivision on the
5 outskirts of densely populated Chicago. According to Google Street View, the terrain
6 appears to be flat with minimal opportunities for views.

7 7) Hampton Park Townhomes, Naperville, Illinois; these townhomes are located in a
8 very densely populated suburb of Chicago. The homes have almost no yards, and
9 almost no view at all.

10 8) Concord Pointe Townhomes, Carol Stream, Illinois; these townhomes are located in
11 a very densely populated suburb of Chicago, just south of O'Hare International
12 Airport.

13 **Q. PLEASE COMPARE AND CONTRAST THESE PROPERTIES.**

14 A. None of these properties are in any way similar to the properties along the IEC-East.

15 Many of these properties are in very densely populated areas with no viewshed
16 whatsoever. People in these areas may actually *want* to live next to a power line because
17 it provides open space which is in very short supply. Though arguably rural, the Saw
18 Creek Estates example is inappropriate because the study was conducted before any lines
19 were built, and because the heavy forest cover shields the line from many of the
20 properties. As was observed during the Site Visits, most of the properties along the IEC-
21 East have rolling vistas featuring mixed woodlots and crop fields, with visibility for
22 miles. In that a large fraction of their value is their scenic viewshed, the properties along
23 the IEC-East are unlike any of those investigated by Mr. Dominy.

24 **Q. DO YOU HAVE ANY OBSERVATIONS REGARDING MR. DOMINY'S**
25 **ANALYSIS OF AGRICULTURAL SALES?**

26 A. Yes. Mr. Dominy presented a case study of agricultural land in Marathon County,
27 Wisconsin, which reviewed a total of five sales along the power lines and seven
28 unencumbered sales over a three-year period. Transource Statement No. 14-R at 15-16.

1 This small sampling is hardly a rigorous assessment of land values, to the point that it
2 renders this case study meaningless.

3 He also discussed agricultural land in Christian County, Illinois. Transource
4 Statement No. 14-R at 15. This assessment attempts to interpolate “true” values of land
5 over a span of nearly 15 years, with land prices ranging from \$1,400 per acre to nearly
6 \$13,000 per acre. Such a huge variance in prices calls into question the validity of Mr.
7 Dominy’s conclusions. Moreover, Mr. Dominy provides no information as to the number
8 of sales that were examined, such that I question the statistical significance of his data.
9 Also, I note that Mr. Dominy provided no information to compare either of these areas –
10 in terms of scenic beauty, viewshed and preserved farmlands - to the areas in York
11 County that would be affected by the project.

12 **Q. DOES MR. DOMINY CHALLENGE THE WYMAN AND MOTHORPE 2018**
13 **STUDY?**

14 A. Yes. Mr. Dominy suggests that the Wyman and Mothorpe 2018 Study does not apply to
15 the properties in this matter because it involved the sales of residential subdivision lots
16 located in large communities rather than agricultural acreage.

17 **Q. HOW DO YOU RESPOND?**

18 A. If the Wyman and Mothorpe 2018 Study does not have any applicability to the properties
19 in this matter, then certainly Mr. Dominy’s case studies likewise have no applicability,
20 and the testimony offered at the public input hearings about the negative impact on
21 property values stands. However, I view the Wyman and Mothorpe 2018 Study as
22 having applicability here because it was a large-scale study involving over 5000 sales
23 over a 16-year period. The conclusions that the study shows about the impact on
24 property values would be even more compelling in a rural setting.

1 **(G) J. Michael Silva, P.E.**

2 **Q. PLEASE DESCRIBE THE PURPOSE OF MR. SILVA’S TESTIMONY.**

3 A. Mr. Silva provides information about EMF, exposure assessment of EMF levels, audible
4 noise, and electromagnetic capability as they relate to the project. Transource Statement
5 No. 15-R at 2.

6 **Q. WHAT DOES MR. SILVA CONCLUDE?**

7 A. Mr. Silva suggests that EMF from the project would not be incompatible with activities
8 under or near the lines, noting that he has observed farms, horse trails and other
9 recreational activities occurring under and near transmission lines. Transource Statement
10 No. 15-R at 14-15. He also evaluated audible noise levels from the proposed
11 transmission lines, concluding that they would be very low. Transource Statement No.
12 15-R at 16-17. Additionally, he suggested that no problems would be expected from the
13 proposed transmission lines. Transource Statement No. 15-R at 17-18.

14 **Q. HOW DO YOU RESPOND?**

15 A. Mr. Silva does not state that he has personally ridden horses on trails near lines.
16 Therefore, he has not experienced riding sensitive horses where sounds and electricity
17 will affect the safety of the riders as our family business has, and I personally, have
18 experienced.

19 **(H) Nancy C. Lee**

20 **Q. WHAT IS THE SUBJECT MATTER OF DR. LEE’S REBUTTAL TESTIMONY?**

21 A. Dr. Lee’s Rebuttal Testimony addresses the scientific research on EMF and health, in
22 particular childhood cancer. Transource Statement No. 16-R at 5-6.

1 **Q. WHAT IS HER OPINION?**

2 A. Dr. Lee opines that the epidemiology studies that have examined power frequency EMF
3 and human health do not provide “a reliable scientific basis to conclude that exposure to
4 EMF would cause or contribute to childhood leukemia, other childhood and adult
5 cancers, or other chronic health problems.” Transource Statement No. 16-R at 15. She
6 further suggests that “there is no reliable scientific basis to conclude that exposure to
7 power frequency EMF from the proposed Independence Energy Connection 230 kV
8 transmission lines will cause or contribute to adverse health effects in people living or
9 working along the proposed line route.” Transource Statement No. 16-R at 15-16.

10 **Q. WHAT IS YOUR RESPONSE?**

11 A. As a resident of York County who lives and/or works along the proposed line route, I am
12 not comforted by Dr. Lee’s opinion. I note that Dr. Lee stops short of suggesting that
13 scientific research supports the view that exposure to EMP from the project will not cause
14 adverse health effects. She cannot assure us that our health will not be adversely
15 affected. Rather, her opinion is non-conclusive. She can only tell us that based on her
16 review of select studies (none of which she produced) and statistics that those materials
17 do not support the notion that we will be adversely affected. Health is too significant of a
18 factor to be addressed by a non-conclusive opinion.

19 *(I) H. Dwight Mercer, Ph.D., DVM*

20 **Q. WHAT IS THE NATURE OF DR. MERCER’S REBUTTAL TESTIMONY?**

21 A. Dr. Mercer offers an opinion about the scientific research on EMF and animal health, in
22 particular dairy cattle, horses and other livestock. He also offers an opinion about

1 whether exposure to EMF from the project would cause adverse health effects in animals
2 along the proposed project route. Transource Statement No. 17-R at 2.

3 **Q. PLEASE DESCRIBE DR. MERCER'S CONCLUSION.**

4 A. Dr. Mercer referred to field studies involving animals, including horses that were kept
5 under operating transmission lines, which found no adverse effects from EMF.
6 Transource Statement No. 17-R at 11.

7 **Q. PLEASE RESPOND.**

8 A. Dr. Mercer did not identify or provide the studies that he examined. Importantly, to the
9 contrary of the studies he referenced, courts have found that stray voltage can be harmful
10 to the health of animals. I point specifically to an article released in May 2018 by Iowa
11 State University's Center for Agricultural Law and Taxation, which is entitled "Stray
12 Voltage and Dairy Farms Can Lead to Large Damage Awards" and is attached as
13 Citizens Exhibit No. 3. In that article, the author discusses the history of successful stray
14 voltage lawsuits and describes the evolution in damages awards. Since 1984, such
15 awards have grown from \$36,500 to \$14 million. Additionally, in 2015, Randall and
16 Peggy Norman, farmers in Minnesota, were awarded \$6.3 million, which was affirmed
17 on appeal and is the largest amount ever awarded in a stray voltage case in state history.⁴
18 According to the article linked at footnote 4 about this lawsuit, the Normans had claimed
19 for nearly 20 years to have experienced mysterious health issues with their dairy herd that
20 eventually led them shutter their rural business in 2012. The animals experienced

⁴ See *Norman v. Crow Wing Cooperative Power & Light Company*, No. A15-0983, Court of Appeals of Minnesota (filed February 22, 2016); <https://www.brainerddispatch.com/content/pine-river-dairy-farmers-awarded-63-million-lawsuit-against-power-cooperative?amp>

1 metabolic diseases, high death loss, erratic milk production and difficulty breeding.

2 When the Normans agreed to have the farm privately testified for stray voltage, the tests
3 came back positive. As explained by the article, stray voltage has been a concern of dairy
4 farmers for some time. The reason is that the electric current can course through the
5 metal on a dairy farm, including water troughs, which can lead to cattle not drinking
6 enough water or eating enough food. Stray voltage can also cause the animals to produce
7 a stress hormone, decreasing the ability to fight infection. It is estimated that the
8 Normans have lost hundreds of cows over the years to metabolic and opportunistic
9 diseases linked to the stray voltage.

10 **Q. DO YOU HAVE ANY OTHER RESPONSE TO DR. MERCER'S**
11 **CONCLUSIONS?**

12 **A.** Yes. A horse's hearing is much keener than that of humans. Horses use their hearing for
13 three primary functions: to detect sounds, to determine the location of the sound, and to
14 provide sensory information that allows the horse to recognize the identity of these
15 sounds. Horses can hear low to very high frequency sound, in the range of 14 Hz to 25
16 kHz (human range = 20 Hz to 20 kHz). Horses' ears can move 180 degrees using 10
17 different muscles (compared to three muscles for the human ear) and are able to single
18 out a specific area to listen to. This allows the horse to orient itself toward the sounds to
19 be able to determine what is making the noise. A horse's hearing is similar in range and
20 anatomical feature allows horses to focus on the direction from which the sound is
21 coming, isolate it, and run the other way. A natural response of the horse is to run from
22 noise. Dr. Mercer did not provide research or data from everyday life on a horse farm
23 where there are 50-75 children riding and working with horses where noise cause injury

1 or death if a horse gets scared by noise from electric lines. Moreover, no research was
2 done on a working horse farm that provides lessons, camps and equestrian vaulting on a
3 regular basis.

4 **Q. IN ADDITION TO YOUR PERSONAL EXPERIENCE, HAVE YOU DONE ANY**
5 **RESEARCH ABOUT THE EFFECTS OF NOISE ON HORSES?**

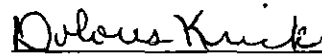
6 A. Yes. I point to an article from the British Horse Society, which is attached as Citizens
7 Exhibit No. 4. In this article, the author observes that horses' sensitivity to noise is a
8 danger to riders and that horses are difficult to handle in conditions where there is a
9 continuous level of noise. The article further notes that quiet rustling is likely to have a
10 greater impact on horse than a high speed train because the former could easily be
11 associated with a predatory animal moving into position to attack. All of these
12 observations are consistent with my own personal experience.

13 **Q. DOES THIS COMPLETE YOUR SURREBUTTAL TESTIMONY?**

14 A. Yes.

VERIFICATION

I, Dolores Krick, hereby state that I submitted Surrebuttal Testimony on behalf of Citizens to Stop Transource, York County and that the facts set forth in this document are true and correct to the best of my knowledge, information and belief. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).



Dolores Krick

Date: February 21, 2019

2/21/19 Hlg dx

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Application of Transource Pennsylvania, LLC :
for approval of the Siting and Construction of the : Docket No. A-2017-2640195
230 kV Transmission Line Associated with the : Docket No. A-2017-2640200
Independence Energy Connection - East and West :
Projects in portions of York and Franklin Counties, :
Pennsylvania. :

SURREBUTTAL TESTIMONY

OF

COURTNEY M. DETTINGER

On Behalf of

**Citizens to STOP Transource
(York County)**

January 30, 2019

RECEIVED
FEB 26 2019
PA PUBLIC UTILITY COMMISSION
SECRETARY'S BUREAU

1 **I. INTRODUCTION**

2 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

3 A. My name is Courtney M. Dettinger. My business address is 1447 York Road,
4 Lutherville Timonium, MD 21093.

5 **Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR TITLE?**

6 A. For the past year, I have been employed by The Maryland Institute for Pelvic
7 Neuroscience and currently serve as a Nurse Practitioner and the Director of Ambulatory
8 Surgical Services.

9 **Q. PLEASE DESCRIBE YOUR EDUCATIONAL AND PROFESSIONAL**
10 **BACKGROUND.**

11 A. I am a Certified Registered Nurse Practitioner. I began my nursing career after graduating
12 from Lancaster General College of Nursing and Health Sciences with my Associate in
13 Nursing (RN) in 2012. I then went on to earn my Bachelor of Science in Nursing from
14 Eastern Mennonite University, in 2015. I recently graduated from Spring Arbor University
15 with a Master of Science in Nursing and Nurse Practitioner, October, 2018. My nursing
16 career has consisted of working in the hospital providing direct care to patients and working
17 in an outpatient surgery center, perioperatively.

18 **Q. ON WHOSE BEHALF ARE YOU PROVIDING THIS TESTIMONY?**

19 A. I am testifying on behalf of Citizens to STOP Transource (York County) ("Citizens").

20 **Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN THIS PROCEEDING?**

21 A. Yes. I have testified at public input hearings and site visits conducted in this proceeding.

1 Q. **WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

2 A. The purpose of this Surrebuttal Testimony is to refute certain portions of Rebuttal
3 Testimony offered by Transource Pennsylvania, LLC (“Transource PA”). Specifically, I
4 address the testimony of Dr. Nancy C. Lee concerning the effects of EMF on health.

5 **II. RESPONSES TO REBUTTAL TESTIMONY**

6 Q. **WHAT IS THE SUBJECT MATTER OF DR. LEE’S REBUTTAL TESTIMONY?**

7 A. Dr. Lee’s Rebuttal Testimony addresses the scientific research on EMF and health, in
8 particular childhood cancer. Transource Statement No. 16-R at 5-6.

9 Q. **WHAT IS HER OPINION?**

10 A. Dr. Lee opines that the epidemiology studies that have examined power frequency EMF
11 and human health do not provide “a reliable scientific basis to conclude that exposure to
12 EMF would cause or contribute to childhood leukemia, other childhood and adult
13 cancers, or other chronic health problems.” Transource Statement No. 16-R at 15. She
14 further suggests that “there is no reliable scientific basis to conclude that exposure to
15 power frequency EMF from the proposed Independence Energy Connection 230 kV
16 transmission lines will cause or contribute to adverse health effects in people living or
17 working along the proposed line route.” Transource Statement No. 16-R at 15-16.

18 Q. **WHAT IS YOUR RESPONSE?**

19 A. Even though my occupational experience has not been centered around epidemiology and
20 public health research, a large portion of my Master’s degree program focused on
21 understanding research and public health. I have never conducted research nor have I
22 been able to conduct a full in-depth literature review on the health risks of people living
23 along a 230-kV High Voltage Powerline; but I do believe it is impossible for anyone to

1 make the statement or assumption that Extremely Low Frequency-Electromagnetic Fields
2 (“ELF-EMF”) do not cause or contribute to adverse health effects.

3 The topic of ELF-EMF and adverse health effects is in desperate need of more
4 research. It is understandable how this can be a difficult topic to research because this
5 type of research would take years considering there are many factors to take into account
6 such as obtaining consent to study someone over a long period of time, possibly from as
7 long as in-utero until death, the amount of time exposed to EMF, the sources of EMF, the
8 voltage of the bordering power line, the distance from the power lines to homes or
9 businesses, possible predisposing conditions, and many other factors. Despite the
10 continuous controversy regarding this topic, there is unfortunately still not enough
11 evidence that points to the fact that EMFs do not cause negative health effects.

12 According to national organizations, there is limited evidence suggesting the effects from
13 EMFs can become more dangerous when paired with other chemicals, EMF sources, etc.;
14 as well as limited evidence suggesting EMF fields alone are not dangerous.

15 **Q. WHAT IS YOUR OBSERVATION CONCERNING THE LIMITED EVIDENCE**
16 **AND NEED FOR FURTHER RESEARCH?**

17 A. Due to the limited evidence and need for further research, many describe the effects of
18 ELF-EMFs on health effects as inconclusive. The definition of inconclusive is something
19 that did not produce clear results or that did not resolve a question or dispute. Given that
20 something is inconclusive does not allow one to ignore the issue or believe that it is not a
21 problem. In medicine, when test results come back inconclusive, further testing is
22 completed until the appropriate diagnosis is made or a serious condition is ruled out.
23 Healthcare providers must follow up on results that may or may not indicate cancer or a
24 terminal illness; neglecting to do so could be detrimental to the patient. Having some

1 data but not enough does not mean a problem does not exist. The same should go for
2 ELF-EMFs; while all studies cannot say for sure whether or not EMFs cause cancer or
3 other negative health effects, we cannot pretend that they absolutely do not.

4 **Q. ARE YOU FAMILIAR WITH RESEARCH PERFORMED BY THE ELECTRIC**
5 **POWER RESEARCH INSTITUTE?**

6 A. Yes. In 2009, the Electric Power Research Institute published their EMF Health Risks
7 Evaluations Report which consisted of evaluations made by several national and
8 international organizations regarding possible health risks from exposure to the ELF
9 electric and magnetic fields.¹ The first evaluation was made in 1997 by the National
10 Research Council of the National Academy of Sciences. They reported, "No conclusive
11 and consistent evidence shows that exposures to residential electric and magnetic fields
12 produce cancer, adverse neurobehavioral effects, or reproductive and developmental
13 effects". In 1999, The National Institute of Environmental Health Services reported the
14 health hazard to ELF-EMF is currently small but that they could not recognize ELF-EMF
15 exposure as entirely safe because scientific data suggests exposure may present a
16 leukemia hazard. In 2001, The International Commission on Non-Ionizing Radiation
17 Protection reviewed epidemiologic literature and did report evidence of an association of
18 EMF and childhood leukemia. They were also able to suggest an association between
19 occupational EMF exposure and Amyotrophic Lateral Sclerosis, also known as ALS or
20 Lou Gehrig's disease. Also, in 2001 the National Radiological Protection Board
21 concluded some epidemiological evidence suggested prolonged exposure to higher levels

¹ Electric Power Research Institute. (2009). EMF Health Risk Evaluations. Retrieved from [http://emf.epri.com/EMF Health Risk Evaluations Updated 2 %2007-09.pdf](http://emf.epri.com/EMF_Health_Risk_Evaluations_Updated_2_%2007-09.pdf).

1 of EMFs is associated with a small risk of leukemia in children. In 2002, three scientists
2 from the California Department of Health Services concluded that EMFs, to some degree,
3 cause an increased risk of childhood leukemia, adult brain cancer, ALS, and miscarriage.
4 In 2002, The International Agency for Research on Cancer published their EMF health
5 risk evaluation and concluded that “ELF magnetic fields are possibly carcinogenic to
6 humans, based on consistent statistical associations of high level residential magnetic
7 fields with a doubling of risk of childhood leukemia”. More recently in 2007, the World
8 Health Organization classified ELF magnetic fields as possibly carcinogenic based on
9 scientific evidence that suggests every day, chronic, low-intensity ELF magnetic field
10 exposure demonstrates a consistent pattern of an increased risk of childhood leukemia
11 (EPRI, 2009).

12 **Q. ARE YOU FAMILIAR WITH STATEMENTS OF THE NATIONAL CANCER**
13 **INSTITUTE?**

14 A. Yes. While the National Cancer Institute (NCI) has stated EMFs cannot damage DNA
15 cells directly, they do make mention that EMFs could cause cancer indirectly through
16 other mechanisms such as hormone alterations. The NCI also refers to multiple studies
17 of exposure to powerlines and childhood leukemia among those children who live in
18 homes with high levels of magnetic fields (NIH NCI,2019).² It is important to note that
19 unlike electric fields, magnetic fields are not easily shielded.

² National Institute of Health, National Cancer Institute. (2019). Electromagnetic Fields and Cancer. Retrieved from <https://www.cancer.gov/about-cancer/causes-prevention/risk/radiation/electromagnetic-fields-fact-sheet>.

1 Q. **HAS THE AMERICAN CANCER SOCIETY REPORTED ON STUDIES**
2 **EVALUATING THE LINK BETWEEN POWER LINES AND CANCER?**

3 A. Yes. The American Cancer Society reported a number of studies evaluating the link
4 between childhood leukemia and powerlines possess mixed results; however, it described
5 an increased risk for those at high exposure levels in comparison to those at low exposure
6 levels. The American Cancer Society further notes that in 1999 the United States
7 National Institute of Environmental Health Services suggested that ELF exposure poses a
8 weak health risk, but noted that it cannot be recognized as entirely safe, and considers it
9 to be a possible human carcinogen (ACS, 2017).³

10 Q. **WHAT CONCLUSION DO YOU REACH FROM THE RESEARCH YOU HAVE**
11 **DONE?**

12 A. Given the lack of research and statistically significant results on this given topic at this
13 point in time, I do not believe a concluding statement can be made that suggests ELF-
14 EMF do not cause cancer or negative health effects. Furthermore, it would be
15 challenging to state that those adults and children living along the path of the proposed
16 230kV High Voltage power line would never encounter negative health effects caused by
17 EMFs if this project were approved.

18 Q. **DOES THIS COMPLETE YOUR SURREBUTTAL TESTIMONY?**

19 A. Yes.

³ American Cancer Society. (2017). Powerlines, Electrical Devices and Extremely Low Frequency Radiation. Retrieved from <https://www.cancer.org/cancer/cancer-causes/radiation-exposure/extremely-low-frequency-radiation.html>.

VERIFICATION

I, Courtney M. Dettinger, hereby state that I submitted Surrebuttal Testimony on behalf of Citizens to Stop Transource, York County and that the facts set forth in this document are true and correct to the best of my knowledge, information and belief. I understand that the statements herein are made subject to the penalties of 18 Pa. C.S. § 4904 (relating to unsworn falsification to authorities).



Courtney M. Dettinger

Date: February 21, 2019