

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

| | | |
|--|---|----------------|
| Application of Transource Pennsylvania, LLC | : | |
| for approval of the Siting and Construction of the | : | A-2017-2640195 |
| 230 kV Transmission Line Associated with the | : | A-2017-2640200 |
| Independence Energy Connection - East and West Projects | : | |
| in portions of York and Franklin Counties, Pennsylvania. | : | |
| Petition of Transource Pennsylvania, LLC | : | |
| for a finding that a building to shelter control equipment | : | |
| at the Rice Substation in Franklin County, Pennsylvania | : | P-2018-3001878 |
| is reasonably necessary for the convenience or welfare of | : | |
| the public. | : | |
| Petition of Transource Pennsylvania, LLC | : | |
| for a finding that a building to shelter control equipment | : | |
| at the Furnace Run Substation in York County, | : | P-2018-3001883 |
| Pennsylvania is reasonably necessary for the convenience | : | |
| or welfare of the public. | : | |
| Applications of Transource Pennsylvania, LLC | : | |
| for approval to acquire a certain portion of the lands of | : | |
| various landowners in York and Franklin Counties, | : | |
| Pennsylvania for the siting and construction of the 230 Kv | : | |
| Transmission Line associated with the Independence Energy | : | |
| Connection – East and West Projects as necessary or proper | : | |
| for the service, accommodation, convenience, or safety of | : | |
| the public. | : | |
| Douglas E. and Martha Royer | : | A-2018-3001881 |
| Dale A & Barbara D.J. Torbet | : | A-2018-3001886 |
| Yost Family Farms, LP | : | A-2018-3001898 |
| Kent E. and Nancy H. Blevins | : | A-2018-3001902 |
| Gregory J. and Melanie A. Goss | : | A-2018-3001904 |
| Michael Hecner, Eva Hecner, Stephen M. Hecner and | : | |
| Theresa M. Norris | : | A-2018-3001906 |
| Robert A Burchett, Judy K Burchett, Thomas L Burchett, | : | |
| and Stacy L Burchett, t/d/b/a Maple Springs Farms | : | |
| Partnership | : | A-2018-3001907 |
| Mervin S & Gladys O Miller | : | A-2018-3001922 |
| Amos L & Elizabeth K Esh | : | A-2018-3001923 |
| J. Ross & Norma R. McGinnis | : | A-2018-3001925 |
| McGinnis Limited Partnership | : | A-2018-3001929 |

| | | |
|---|---|----------------|
| Chilcoat and Peters Inc. | : | A-2018-3001932 |
| Gregory M. & Kristina L. Wilt | : | A-2018-3001933 |
| Burton Family Limited Partnership | : | A-2018-3001936 |
| James R. McGinnis | : | A-2018-3001943 |
| George W. & Madelyn K. Treadway | : | A-2018-3001944 |
| Richard D. Good, Cathy M Good, Roger D Good & Peggy L Good | : | A-2018-3001954 |
| Glenn J. Bradley | : | A-2018-3001956 |
| Jonathan R Hash and Gregory J & Melanie A Goss | : | A-2018-3001957 |
| Thomas R. Krell Jr. & April Krell | : | A-2018-3001958 |
| D. Arthur Grove and David Richard Grove | : | A-2018-3001960 |
| RGRG Partners | : | A-2018-3001961 |
| R. Andrew & Deborah E. Macklin | : | A-2018-3001962 |
| Francis & Mary Eileen Boone | : | A-2018-3001963 |
| Barley Farms LP | : | A-2018-3001964 |
| Stephen J. & Dolores E. Krick | : | A-2018-3001965 |
| Shane K. & Kristi L. Taylor | : | A-2018-3001966 |
| Jefferson L. Bracey, Sr. & Laura R. Bracey | : | A-2018-3001967 |
| Leonard M. & Sandra J. Traynor | : | A-2018-3001968 |
| Barbara D. & David W. Anderson, C. Kathleen and William M. Tompkins, and M. Kathryn and Stephen M. Judy | : | A-2018-3001982 |
| E. Daniel & Diane M. Neff | : | A-2018-3001984 |
| Maple Lawn Farms, Inc | : | A-2018-3001985 |
| Randall C. Stewart, Jr. and Peggy A. Stewart | : | A-2018-3001986 |
| John J. & Carol A. Hamilton | : | A-2018-3001989 |
| Lois M. White | : | A-2018-3001999 |
| Jane M. Zaiger | : | A-2018-3002012 |
| GBR Lincoln Highway Limited Liability Company, Chambersburg Holdings, LP and WLR Chambersburg, LLC | : | A-2018-3002022 |
| Summit Partners, LLC | : | A-2018-3002028 |
| Daryl Harry Bender and Donna Irene Bender Widney | : | A-2018-3002031 |
| Roy B. Biesecker and Susan L. Biesecker | : | A-2018-3002032 |
| Allan A. Stine | : | A-2018-3002037 |
| John A. Steiger and Allison E. Steiger | : | A-2018-3002041 |
| Leonard H. Kauffman and Mary P. Kauffman | : | A-2018-3002046 |
| Ivan D. Horst and Ellen M. Horst | : | A-2018-3002047 |
| Guilford Water Authority | : | A-2018-3002048 |
| DC Farms, LLC | : | A-2018-3002051 |
| Donald L. Martin and Denise M. Martin | : | A-2018-3002052 |
| William K. Nitterhouse and Diane R. Nitterhouse | : | A-2018-3002053 |
| Wayne E. Lehman & Donald R. Lehman as Trustees of Credit Shelter Trust established under Item II of the Last Will of Harvey M. Lehman (the "Harvey M. Lehman Credit Shelter Trust") & Wayne E. Lehman, Donald R. Lehman, Jane L. Martin, Kenneth L. Lehman & Lester E. Lehman | : | A-2018-3002054 |

| | | |
|---|---|----------------|
| Chambersburg Area School District | : | A-2018-3002055 |
| Lemma & O'Connor Investors LLC | : | A-2018-3002057 |
| Daniel S. Long | : | A-2018-3002061 |
| Mary K. Henry, Deceased, D. Yvonne Frank, | : | |
| Marion Carmack, Charles W. Henry (Letters Testamentary) | : | A-2018-3002066 |
| Chambersburg Mall Realty LLC, Chambersburg CH LLC, | : | |
| and Chambersburg Nassim LLC | : | A-2018-3002067 |
| Richard L. Leshner and Agnes Marie Leshner | : | A-2018-3002069 |
| Charles Stamy Fox | : | A-2018-3002072 |
| Marlin Lester Martin and Carrie Rosemarie Martin | : | A-2018-3002074 |
| Owls Club, Inc. | : | A-2018-3002075 |
| Lowe's Home Centers, Inc. | : | A-2018-3002103 |
| Ivan D. Horst and Ellen M. Horst | : | A-2018-3002104 |
| Roy M. Cordell and Emma L. Cordell | : | A-2018-3002107 |
| Patriot Federal Credit Union | : | A-2018-3002108 |
| Edna S. Fox and Charles A. Fox | : | A-2018-3002111 |
| Myron J. & Fern L. Miller | : | A-2018-3002125 |
| Allen W. Rice and Lori C. Rice | : | A-2018-3002128 |
| Colby S. Nitterhouse and Leah A. Nitterhouse- | : | A-2018-3002140 |
| Willis M. Leshner Partnership | : | A-2018-3002147 |
| Kyle F. & Kelly A. Schindel | : | A-2018-3002163 |
| Rodney A. Meyer and Karen I. Benedict | : | A-2018-3002169 |
| Lynn D. Etter and Mary W. Etter | : | A-2018-3002232 |
| Margaret L. Mower | : | A-2018-3002238 |
| Elam H. Reiff and Mary Z. Reiff | : | A-2018-3002251 |
| J. Norman & Bonna Jane Diller | : | A-2018-3002310 |
| Douglas L. Straley and Nellie M. Straley | : | A-2018-3002312 |
| Michael D. Frederick and Tammy Jo Salter | : | A-2018-3002329 |
| Joshua L. Diller and Nicole M. Diller | : | A-2018-3002331 |
| Michael D. Frederick and Tamra D. Frederick and | : | |
| Tammy Jo Salter and Roderick C.B. Salter | : | A-2018-3002332 |

RECOMMENDED DECISION

Before
Elizabeth H. Barnes
Administrative Law Judge

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I. INTRODUCTION

This decision recommends that the Pennsylvania Public Utility Commission (Commission) deny the siting applications of an electric transmission utility and reject a partial settlement agreement proposing a high voltage transmission lines project in York and Franklin Counties because the applicant has failed to show need for the project within the meaning of Commission regulations and the Pennsylvania Public Utility Code. The congestion cost on the AP South Reactive Interface (APSRI) in the Baltimore-Washington D.C. metro-area that the market-efficiency project was designed to alleviate has substantially declined by over \$400 million since 2014 without the project being built. Where the congestion costs at the APSRI once represented 25% of the total congestion costs in 2014 of PJM Interconnection, LLC (PJM), that percentage has decreased to a range of 1–4% of total PJM congestion costs experienced per year for the past four years. Additionally, any projected net benefit to the PJM region of \$32.5 million over a period of 15 years, is outweighed by a projected increase in wholesale power prices in Pennsylvania by \$400 million on a net basis. Further, the project will have detrimental economic and environmental impacts on real estate values, farming practices, natural springs, trout fishing, an elementary school, the Tim Cook Memorial Cross Country Course, businesses, the Owl's Club, local government, and tourism in Franklin County.

The applicant's claims of potential reliability violations occurring in 2023 in the absence of the Independence Energy Connection (IEC) Project are unpersuasive as this assertion is not based upon sufficient testing, but rather outdated congestion cost data from 2014. Because Project 9A is defined as a market efficiency project, PJM has not studied any other solutions to alleged potential reliability issues and has not determined if there are lower-cost options available for only solving potential reliability need. Moreover, the facilities that may experience these potential violations are due for upgrades and some are currently undergoing rebuilds that may increase capacity. If Project 9A is not built, PJM has the means and capability to conduct reliability tests, determine whether any future reliability violations exist, consider other solutions, and select another design.

As this project appears to be a means for a foreign electric transmission provider to gain access to the Washington D.C./Baltimore metro-area market while subsidizing its costs through Pennsylvania, I recommend that the Commission reject these siting applications and deny the accompanying two shelter petitions for zoning exemptions at the Furnace Run and Rice substations as well as the seventy-seven (77) remaining pending eminent domain applications. Further, I recommend that the Commission issue a rule to show cause directing Transource Pennsylvania LLC show cause why the utility's certificate of public convenience (CPC) should not be rescinded as the need for the project for which it was granted is not proven.

II. HISTORY OF THE PROCEEDINGS

On February 8, 2017, Transource Pennsylvania, LLC (Transource or Company) filed an Application for All of the Necessary Authority, Approvals, and Certificates of Public Convenience (1) to Begin to Furnish and Supply Electric Transmission Service in Franklin and York Counties, Pennsylvania; (2) for Certain Affiliated Interest Agreements; and (3) for any Other Approvals Necessary to Complete the Contemplated Transactions at Docket Nos. A-2017-2587821 and G-2017-2587822. After a Joint Petition for Full Settlement was filed in those cases, an Initial Decision was issued on September 14, 2017, granting Transource's Application and directing a CPC be issued conferring upon it status as a public utility pursuant to the terms of the Joint Petition for Full Settlement. No exceptions were filed to the Initial Decision; however, on September 21, 2017, Transource and the Office of Consumer Advocate (OCA) filed a letter clarifying that under the Settlement, all parties reserved the right to challenge the need for the Independence Project when Transource files a siting application with the Commission or to challenge any other project proposed by Transource. Any finding of need for additional transmission service in York and Franklin Counties is limited to the granting of a CPC and is not precedent for any future siting application.

At Public Meeting held on December 21, 2017, Commissioner David W. Sweet moved to grant Transource a certificate of public convenience, giving the Company the right to file a siting application. Before an Order consistent with the passed Motion was entered, on December 27, 2017, Transource filed an Application for authorization to construct a new 230 kV

transmission line in York County, Pennsylvania at Docket No. A-2017-2640195 (known as the East Project) and an Application for authorization to construct a new 230 kV transmission line in Franklin County, Pennsylvania at Docket No. A-2017-2640200 (known as the West Project).

A Notice of Prehearing Conference was issued on January 4, 2018, assigning as presiding officers to this proceeding Administrative Law Judge (ALJ) Elizabeth Barnes and ALJ Andrew Calvelli.¹ On January 8, 2018, Representative Kristin Phillips-Hill of the 93rd House District² requested a public input hearing be held in Southern York County regarding the proposed high voltage transmission line at Docket No. A-2017-2640195. On January 10, 2018, OCA filed a Protest and Public Statement. In accordance with Commission regulations, 52 Pa. Code § 57.75(a), notice of a prehearing conference scheduled for March 13, 2018 was published in the *Pennsylvania Bulletin* on January 20, 2018, 48 Pa.B. 585. Multiple protests were filed by interested persons and entities. The protest period ended February 20, 2018.

On January 23, 2018, the Commission issued an Opinion and Order at Docket Nos. A-2017-2587821 and G-2017-2587822 conferring upon Transource, the status of a Pennsylvania public utility to: 1) begin to furnish and supply electric transmission service to or for the public within a transmission service area from the new Rice Substation in Franklin County, Pennsylvania to the Pennsylvania/Maryland border for PJM Project 9A, baseline upgrade numbers b2743 and b2752; and 2) begin to furnish and supply electric transmission service to or for the public within a transmission service area from the new Furnace Run Substation in York County, Pennsylvania to the Pennsylvania/Maryland border for PJM Project 9A, baseline upgrade numbers b2743 and b2752.³

¹ As of March 1, 2020, ALJ Calvelli ceased presiding in this matter.

² Since January 2019, Kristin Phillips-Hill has been a member of the Pennsylvania State Senate, representing the 28th Senate district.

³ *Application of Transource Pennsylvania, LLC for all of the Necessary Authority, Approvals, and Certificates of Public Convenience: (1) to Begin to Furnish and Supply Electric Transmission Service in Franklin and York Counties, Pennsylvania; (2) for Approval of Certain Affiliated Interest Agreements; and (3) for Any Other Approvals Necessary to Complete the Contemplated Transactions*, A-2017-2587821, G-2587822 (Opinion and Order entered Jan. 23, 2018).

On March 5, 2018, the Office of Small Business Advocate (OSBA) filed a Notice of Intervention and Public Statement. A Prehearing Conference was held on March 13, 2018, at which time counsel for Stop Transource Franklin County (STFC) offered to provide declarations from members with respect to standing in support of its Petition to Intervene. On March 14, 2018, an unopposed Protective Order was issued. On March 20, 2018, STFC filed a Petition to add Appendix A, containing member standing affidavits to its February 20, 2018 Petition to Intervene and Protest.

On March 28, 2018, a Procedural Order was issued consolidating Docket Nos. A-2017-2640195 and A-2017-2640200 for the purposes of discovery, litigation, and decision. The Procedural Order adopted a litigation schedule, modified the discovery rules, and granted Intervenor status to the following: John and Louise Kennedy, Kira D. and J. Lamar Rohrer, Stephen Snell, Lynda Manning, PECO Energy Company, Kay A. Baldwin, Carl Baldwin, Tim and John Krick, David Good, Addyson Creamers, Christine Crowe, Brian McCleary, Jordyn Creamers, Summer Ledford, Neil Autry, William Creamers, Katharine Creamers, Donald Culp, Kenny Grove, Cletus P. and Diane M. Gohn, Blaine Ham, Matt Moser, Virginia M. and Ginny Gible, Garland Sweitzer, Brandy Miller, Todd Dorn, William Grove, David Saxman, Tiffany Peiffer, Dale R. Saxman, Melvin Saylor, Zac Moser, Harry E. Peiffer Jr., Jesse Thompson, Dan Moser, Jeremiah Good, Daniel E. Dickmyer, Kevin Elko, Jim Hershey, Steven Mink, Christine Rogers, Diane Keys, Jamie Diamond, Garry Keys, Maryland and Pennsylvania Railroad Preservation Society, Joseph Clubb, Mandy Welch, Kimberly Slezak, Linda A. Dickinson, James Strack, Gary Mink, David Koons, David C. and Suzan E. Miller, Ann Lavin, Jennifer Clubb, Margaret Williams, Mac Moser, Bill Wilt, Dean Moser, Caroline Winkler, T.R. Corcoran, Richard Diamond, Valerie Dorn, Katherine Traynor, Madeline Traynor, Jon Smeltzer, Thomas Wheatley, Tony Ham, Citizens to STOP Transource (Citizens), Scott Welch, Amber Geiger, Trevor Lewis, David Hawkins, Mike Martinez Jr., Judith Hawkins, West Penn Power Company, Mid-Atlantic Interstate Transmission, LLC., (MAIT) and PPL Electric Utilities Corporation (PPL), MAIT. On April 3, 2018, an Order to Amend Procedural Order was issued amending Ordering Paragraph No. 5 of the Procedural Order per the request from OCA and Transource. The Order also granted Intervenor status to STFC.

On April 27, 2018, certain landowners filed a joint Petition for Interim Emergency Relief in the Nature of a Protective Order. On May 2, 2018, these landowners withdrew their Petition for Interim Emergency Relief without prejudice.

On May 15, 2018, at Docket No. P-2018-3001883, Transource filed a Petition for a Finding that a Building to Shelter Control Equipment at the Furnace Run Substation in York County, Pennsylvania is Reasonably Necessary for the Convenience or Welfare of the Public. Also on May 15, 2018, at Docket No. P-2018-3001878, Transource filed a Petition for a Finding that a Building to Shelter Control Equipment at the Rice Substation in Franklin County, Pennsylvania is Reasonably Necessary for the Convenience or Welfare of the Public. Also on May 15, 2018, Transource filed 40 eminent domain applications pertaining to lands in York County and 93 eminent domain applications pertaining to lands in Franklin County. Notice of the 133 eminent domain applications was published in the *Pennsylvania Bulletin* on June 16, 2018 at 48 Pa.B. 3679.

Public Input hearings were held on May 9 and 15, 2018 in York County and on May 22 and 23 in Franklin County. On May 29 and 30, 2018, site views took place in Franklin County on properties of all landowners requesting a site view. On June 1, 2018, site views took place in York County on all properties of landowners requesting a site view.

On June 1, 2018, OCA filed a notice of intervention in the two petitions and a Motion to Amend the Procedural Schedule. On June 4, 2018, Notice of a Further Prehearing Conference was issued scheduling a second prehearing conference for July 9, 2018. On June 5, 2018, a Second Prehearing Conference Order was issued. On June 6, 2018, Transource filed an Answer to OCA's Motion to Amend the Procedural Schedule. The Second Prehearing Conference Order was published in the *Pennsylvania Bulletin* on June 16, 2018. 48 Pa. B. 3679. On June 26, 2018, a Third Prehearing Order was issued granting OCA's Motion for an extension of time allowed for intervenor direct testimony from July 25 to September 25, 2018. Pursuant to 52 Pa. Code § 57.75, the Order consolidated the 133 eminent domain applications and zoning petitions with the applications at Docket No. A-2017-2640195. A Fourth Prehearing Order was

issued on July 30, 2018, admitting photographs (marked as PUC exhibits) taken by Commission Staff at the Franklin and York County site views into the record.

Because the eminent domain applications were not filed with the initial applications, but rather after some public input hearings, in order to afford those landowners, the subject of eminent domain applications due process, further public input hearings were held on September 18, 2018 in Chambersburg, Franklin County and on September 20, 2018 in Airville, York County.

On September 25, 2018, STFC requested an extension of time to submit Intervenor testimonies and exhibits. On October 2, 2018, a Fifth Prehearing Order was issued extending the deadline for intervenor direct testimony from September 25, 2018 to October 11, 2018 and deeming the following eminent domain application dockets withdrawn:

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|----------------|--|
| A-2018-3002070 | Laverne & Ellen Martin |
| A-2018-3002311 | Gerald L. & Elaine Eberly |
| A-2018-3002019 | Joseph N. Weagley |
| A-2018-3002348 | Forrester Farms, II, Inc. |
| A-2018-3002030 | Jason M. & Rosalie Hostetter |
| A-2018-3002120 | Iven H. & Ruby E Benedict |
| A-2018-3002040 | Harold H. Wenger Living Trust |
| A-2018-3002222 | REK Properties LLC |
| A-2018-3002035 | Salt Creek Partners LLC |
| A-2018-3002001 | Jack E. & Emily L. Martin and Jason E. & Megan L. Martin |
| A-2018-3002141 | David F. & Kimberly Jo Neibert |
| A-2018-3001887 | Henry M. & Glenda J. Sommer |
| A-2018-3001914 | Joseph L. & Barbara G. Lapp |
| A-2018-3002049 | Kenneth M. & Marie A. Lehman |
| A-2018-3001969 | Troy W. Kline |
| A-2018-3002240 | J. Ray & Linda D. Geesaman |
| A-2018-3002170 | John O. & Penny Lee Garber |
| A-2018-3002043 | Justin & Sharla Dunlap |
| A-2018-3001988 | Derek J. & Courtney Dettinger |
| A-2018-3002207 | Michael D. Cordell |
| A-2018-3002173 | Colt R. Martin & Kristyn Benedict |
| A-2018-3002124 | Richard L. & Fern L. Peck |
| A-2018-3002068 | Mahlon R. & Debra S. Eby |
| A-2018-3002255 | Daniel W. & Clara Sue Benedict |
| A-2018-3002346 | Mary I. & Paul J. Baker |
| A-2018-3002168 | Daniel R. & Doreen F. Strite |
| A-2018-3002162 | John V. & Eunice Rudolph |

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| A-2018-3002119 | Lamar D. & Esther M. Horst |
| A-2018-3002038 | Charles W. Mellott |
| A-2018-3002064 | Roy S. & Regina F. Martin |
| A-2018-3002013 | Donald L. & Isabelle M. Hess |
| A-2018-3002167 | Lamar V. & Edna F. Rudolph |
| A-2018-3002065 | Charles, John & Margaret Diller and James & Mable Diller |
| A-2018-3002336 | Roger L. & Joyce E. Diller, Trustees of the Diller Family Trust |
| A-2018-3002071 | Samuel A. & Mandy L. Jones |
| A-2018-3002352 | Marvin Charles & Lois Ellen Martin |
| A-2018-3002016 | Denver N. & Katrina J. Martin |
| A-2018-3002334 | Kevin L. & Faye I. Gayman |
| A-2018-3002021 | Roger L. & Joyce E. Diller |
| A-2018-3002020 | J. Daniel & Elaine J. Eshlman |
| A-2018-3002039 | Ronald P. & Doris M. Stoner |
| A-2018-3001987 | John E.N. Blair |
| A-2018-3002029 | Jack E. & Emily L. Martin |
| A-2018-3001996 | Mary Ann & DuWayne Fox |
| A-2018-3002000 | Donald L. & Beverly A. Fahrney |
| A-2018-3002099 | Bruce I. Neibert, Jr. |
| A-2018-3002172 | Gerald L. & Jennifer Sibal Zeigler |
| A-2018-3002118 | Tunde T. Tijani |

On November 27, 2018, Transource served its rebuttal testimonies, adding several new witnesses testifying that the IEC Project would address several potential future reliability violations, a new argument not raised in its initial Applications, which had sought approval based upon a perceived need to address market inefficiency within PJM.

On December 7, 2018, OCA filed a Motion to Amend Procedural Schedule seeking additional time to analyze new generation deliverability analysis performed by PJM and to prepare surrebuttal testimony. On December 10, 2018, Citizens filed a motion seeking the same relief and on December 13, 2018, STFC filed a Motion to Amend the Procedural Schedule and to Strike Certain Testimony, *i.e.* portions of testimony raising the new issue of reliability concerns. Transource submitted timely answers to all three motions.

A Sixth Prehearing Order was issued on December 31, 2018, granting Transource's Petitions for Leave to Withdraw Eminent Domain Applications and removing the following docket numbers from the caption:

| | |
|----------------|---|
| A-2018-3001971 | Carol K. Long |
| A-2018-3002204 | Edwin W. Shank and Dawn L. Shank |
| A-2018-3002137 | IESI PA Blue Ridge Landfill Corporation |
| A-2018-3002129 | West Penn Power Company |
| A-2018-3001970 | Jeffrey C. Neutzel |

The Sixth Prehearing Order extended the deadline for surrebuttal testimony from January 16 to January 30, 2019. Additionally, STFC's Motion to Strike portions of rebuttal testimonies pertaining to reliability claims introducing direct testimony at a rebuttal phase was granted.

On January 16, 2019, STFC submitted a Motion to Designate Stricken Testimony consistent with the ALJs' Sixth Prehearing Order. The OCA and Citizens submitted Answers concurring with the Motion. Through the Seventh Prehearing Order issued January 24, 2019, the ALJs granted STFC's Motion and thereby specified the page and line numbers of the testimony and exhibits to be stricken. Seventh Prehearing Order at 3-4. The Seventh Prehearing Order also clarified that portions of the rebuttal testimonies of the following Transource witnesses were to be stricken to the extent they mention the new potential future reliability claims: Brian D. Weber, Kamran Ali, Stephen Herling, Timothy Horger, and Judy Chang.

Opposing parties served surrebuttal testimony on January 28, 2019. The OCA served Statement No. 1-SR by Scott Rubin, Statement No. 2-SR by Peter Lanzalotta and Statement No. 3-SR by Geoffrey Crandall on that date.

On February 1, 2019, Transource submitted a Petition for Interlocutory Review and Answer to a Material Question, challenging the ALJs' Prehearing Orders granting STFC's Motion to Strike the Company's rebuttal testimony. All parties submitted briefs in support of their respective positions on the Petition on February 11, 2019. Also on February 11, 2019, Transource served its written rejoinder testimony. The OCA followed the service of rejoinder with a Motion to Strike the Rejoinder to the extent that it failed to comply with the Sixth Prehearing Order. Transource filed and served its Answer. STFC and Citizens submitted Motions expressing the same position. Transource thereafter served redacted versions of the

rejoinder statements that were consistent with the ALJs' Orders, *i.e.*, Rejoinder Statements 1-RJ (Weber), 2-RJ (Ali), 7-RJ (Herling), 8-RJ (Horger), 9-RJ (Cawley), 10-RJ (Chang).

The parties proceeded to evidentiary hearings for the purposes of entering all pre-served direct, rebuttal and surrebuttal testimonies and exhibits into the evidentiary record on February 21-22 and 25-27, 2019 and cross-examination of witnesses. The ALJs also allowed oral testimony by several *pro se* parties.

By Order entered March 20, 2019, the Commission granted the Company's Petition for Interlocutory Review and answered the following questions in the affirmative:

1. Whether the ALJs erred by striking Transource PA's rebuttal testimony regarding the Project's reliability benefits, thereby violating 66 Pa.C.S. 332(c) and denying Transource PA due process of law?
2. Whether the ALJs' error unreasonably prevents the development of a full and complete record and denies the PUC access to the most recent available information in determining the need for this transmission line Project?

The Commission remanded the matter to the Office of Administrative Law Judge (OALJ) for further proceedings consistent with its Opinion and Order entered March 20, 2019. A Tenth Prehearing Order was issued on April 2, 2019, directing Transource to serve its unredacted rebuttal and rejoinder statements within ten days. Furthermore, the ALJs modified the procedural schedule to allow for the submission of supplemental surrebuttal and rejoinder testimonies with respect to the previously redacted matter relating to reliability and scheduled evidentiary hearings for June 28-29, 2019.

The parties proceeded with additional discovery and responses on the unredacted statements. On May 29, 2019, the OCA served its OCA St. 2-SSR, the Supplemental Surrebuttal Testimony of Peter J. Lanza, responding to the Company's claims of potential future reliability violations.

On June 18, 2019, Transource filed a Motion to Suspend the Procedural Schedule seeking additional time to engage in settlement discussions, requesting that the evidentiary hearings scheduled for June 28-29, 2019, be postponed and that the parties provide status updates to the Presiding Officers every 30 days. On June 21, 2019, the Eleventh Prehearing Order was issued delaying evidentiary hearings until August 7-8, 2019. By way of Hearing Notice on August 1, 2019, those evidentiary hearings were further postponed until October 2-4, 2019, to provide additional time for settlement discussions to continue.

On October 17, 2019, Joint Partial Settlements were filed with the Commission between 1) Transource and the York County Planning Commission; 2) Transource and Citizens to Stop Transource York County, Maple Lawn Farm, Barron Shaw and Shaw Orchards; and 3) Transource and PPL. Under the Settlements, Transource agreed to file an amended application to propose an alternative configuration for the East Portion of the IEC Project in York County. The alternative configuration would primarily utilize existing rights-of-way (ROWS) and transmission infrastructure in York County.

A Prehearing Conference was held on October 28, 2019, for the Presiding Officers to obtain further details of the Settlement and to check the status of the ongoing litigation for the West Project portion of the consolidated proceeding. During the Conference, the Parties advised that, although a Settlement had been reached for the East Project, Transource intended to file various documents with the Commission, including, without limitation, Joint or Amended Application(s) and related filings. Further, OCA requested to move into the record the Supplemental Surrebuttal Testimony of Witness Peter J. Lanzaotta, who was to retire before the anticipated further hearing. The ALJs held that as long as Mr. Lanzaotta signed a verification attached to his testimony, a Joint Stipulation for Admission of Evidence with Mr. Lanzaotta's testimony may be filed and admitted into the record.

On November 26, 2019, OCA moved for admission into the evidentiary record the Supplemental Surrebuttal Testimony of Peter J. Lanzaotta. Pursuant to the Joint Stipulation attached to the Motion, OCA stipulated to the authenticity of OCA St. No. 2-SSR and accompanying exhibits. A verification was also attached to OCA St. No. 2-SSR. Upon due

consideration of this unopposed Motion and the Joint Stipulation, the Presiding Officers granted the Motion on November 27, 2019.

On January 29, 2020, pursuant to the settlement agreements reached with the other parties, Transource and PPL filed a Joint Amended Application for the Siting and Construction of the 230 kV Transmission Lines associated with the Independence Energy Connection-East Project. Under the Amended Siting Application, instead of pursuing greenfield construction of a new 230 kV transmission line in York County, Transource seeks to work cooperatively with PPL to reroute the majority of the IEC East Portion of the Project to two existing transmission lines in York County. Currently operating as single circuit lines, PPL will convert the existing Manor-Graceton 230 kV line and the Otter Creek-Conastone 230 kV line to double circuit 230 kV lines. Additionally, PPL will utilize an existing ROW, currently hosting an abandoned transmission line, to construct two new 230 kV transmission lines that will connect the double circuit Manor-Graceton and Otter Creek-Conastone transmission lines to the proposed Furnace Run Substation. Under its amended plan, Transource will construct, own, and operate the Furnace Run Substation as originally proposed. Transource asserted that the alternative configuration of the IEC East Portion of the Project will provide the same benefits as the original IEC Project. The Furnace Run to Conastone double circuit will be approximately eighteen miles in length of which two miles will be constructed in the expanded ROW with new transmission towers and sixteen miles will be in the existing ROW on PPL's existing towers. The Furnace Run to Graceton double circuit will be approximately eleven miles in length of which two miles will be constructed in the expanded ROW and nine miles will be in the existing ROW on existing towers. The IEC West Portion of the Project remains the same as originally proposed by Transource.

On January 31, 2020, the Fourteenth Prehearing Order was issued advising the parties of a prehearing conference scheduled for March 18, 2020. Additionally, notice of Transource's Amended Siting Application was published in the *Pennsylvania Bulletin* on February 8, 2020, indicating that Protests and Petitions to Intervene should be filed on or before February 28, 2020. 50 Pa.B. 892. Accordingly, on February 19, 2020, STFC filed an Answer to the Amended Application. Further, on February 28, 2020, OCA filed its Protest in opposition to

the Amended Siting Application and Franklin County filed a Petition to Intervene and Protest. On March 10, 2020, Transource and PPL filed a joint reply to STFC's Answer.

On March 16, 2020, the Prehearing Conference scheduled for March 18, 2020 was canceled per management directives pertaining to office closings due to a coronavirus (COVID-19) pandemic. On May 6, 2020, the Prehearing Conference was rescheduled for May 20, 2020.

On April 16, 2020, Franklin County was granted status as an Intervenor. On May 20, 2020, the Prehearing Conference was held as a Telephonic Conference. A further evidentiary hearing was held on July 9, 2020, via Business Skype, for the purpose of admitting the remaining written testimony into the record and to conduct cross-examination regarding the Company's potential future reliability claims and the alternative configuration of the IEC Project. A Briefing Order was later issued on August 5, 2020, directing the parties to file main briefs on August 11, 2020, and Reply Briefs on September 25, 2020.

A Transcript of the July 9, 2020 hearing was filed on August 30, 2020, consisting of pages 2807 through 2984. Transource, OCA, Franklin County, and STFC filed main briefs on August 11, 2020, consistent with the Briefing Order, and those same entities filed reply briefs on or about September 25, 2020. York County Planning Commission and Citizens filed letters in support of the Joint Partial Settlement in lieu of briefs on August 11, 2020. The record closed on September 25, 2020 when the reply briefs were filed. This matter is ripe for a decision.

II. FINDINGS OF FACT

A. Background

1. Applicant Transource Pennsylvania, LLC (Transource or Transource PA), is a limited liability company organized and existing under the laws of Delaware and is a wholly owned direct subsidiary of Transource Energy, LLC. IEC-West Application at ¶ 3.

2. Transource Energy, LLC is a limited liability company organized and existing under the laws of Delaware, majority owned by American Electric Power (AEP). *Application of Transource Pennsylvania, LLC for all of the Necessary Authority, Approvals and Certificates of Public Convenience: (1) to begin to furnish and supply electric transmission service in Franklin and York Counties, Pennsylvania; (2) for Approval of Certain Affiliated Interest Agreements; and (3) for any Other Approvals Necessary to Complete the Contemplated Transactions*, A-2017-2587821 and G-2017-2587822 (Opinion and Order entered January 23, 2018).

3. The Office of Consumer Advocate is statutorily authorized to represent the interest of public utility consumers in the Commonwealth of Pennsylvania, in all proceedings before the Public Utility Commission and the courts affecting the interest of public utility consumers. 71 P.S. § 301-7, *et seq.*

4. PJM Interconnection, LLC, is the Regional Transmission Organization (RTO) charged by the Federal Energy Regulatory Commission (FERC) under the Federal Power Act, 16 U.S.C. § 791a, *et seq.*, with maintaining the bulk electric transmission system in a 13 state region that includes most of Pennsylvania. IEC-West Application at ¶ 10.

5. PJM prepares an annual Regional Transmission Expansion Plan (RTEP) detailing a series of analyses to ensure reliable flow of electricity to its customers. IEC West Application at ¶ 11.

6. As part of its RTEP, PJM conducts a market efficiency analysis to find areas where congestion exists and seeks solutions to reduce congestion. IEC West Application, Att. 2 at 2-3.

7. On October 30, 2014, PJM opened a long-term RTEP proposal window (“2014/2015 Long-Term Window”) to solicit market efficiency proposals in order to alleviate congestion on the AP South Reactive Interface, a set of four 500 kV transmission lines that originate in West Virginia and terminate in Maryland. IEC West Application at ¶ 17.

8. Congestion on the AP South Reactive Interface totaled approximately \$800 million from 2012 to 2016. Transource St. 3 at 25.

9. Forty-one proposals were submitted as part of the 2014/2015 Long-Term Window to address congestion on the AP South Reactive Interface. IEC West Application, Att. 2 at 4. Transource Energy, the parent of Transource, submitted “Project 9A,” to resolve congestion on the AP South Reactive Interface. Transource St. 8-R, Exh. TH-5R at 2; Tr. 2387-88. The Independence Energy Connection Project (IEC Project or Project) is a major component of Project 9A. IEC West Application at ¶ 17.

10. After evaluation and review of the IEC Project, the PJM Board approved Project 9A on August 2, 2016, as Baseline Upgrade Numbers b2743 and b2752, which includes the IEC Project. IEC West Application at ¶ 18. On November 2, 2016, PJM and Transource Energy executed a Designated Entity Agreement (DEA). IEC West Application ¶ 21.

11. FERC approved the DEA on January 12, 2017, at Docket No. ER17-349-000. *Id.*

12. Pursuant to Schedule E of the FERC-approved DEA, Transource Pennsylvania, LLC, is responsible for the construction, ownership, maintenance, and operation of the Pennsylvania Portion of the IEC Project. *Id.*

13. On February 7, 2017, Transource filed an Application with the Commission requesting all necessary authority, approvals, and certificates of public convenience authorizing Transource to begin to furnish and supply electric transmission service as a Pennsylvania public utility within two corridors to be located in Franklin and York Counties, Pennsylvania. IEC West Application ¶5; *see also Application of Transource Pennsylvania, LLC for All of the Necessary Authority, Approvals, and Certificates of Public Convenience (1) to Begin to Furnish and Supply Electric Transmission Service in Franklin and York Counties, Pennsylvania; (2) for Certain Affiliated Interest Agreements; and (3) for any Other Approvals Necessary to Complete the Contemplated Transactions*, Docket No. A-2017-2587821.

14. On January 23, 2018, the Commission granted the Company's request pursuant to the settlement agreement reached in that proceeding. Docket No. A-2017-2587821 (Opinion and Order entered January 23, 2018).

B. Independence Energy Connection Project

15. On December 27, 2017, Transource filed an application with the Commission seeking approval to site and construct the Pennsylvania portion of the Rice-Ringgold 230 kV Transmission Line in portions of Franklin County, Pennsylvania. *Application of Transource Pennsylvania, LLC for Approval of the Siting and Construction of the 230 kV Transmission Line Associated with the Independence Energy Connection – West project in portions of Franklin County*, Docket No. A-20172640200 (IEC West Application).

16. The Rice-Ringgold 230 kV Transmission Line extends 28.8 miles to connect the existing Ringgold Substation located near Smithsburg, Washington County, Maryland to a proposed Rice Substation in Franklin County, Pennsylvania, of which, 24.4 miles will be located in Pennsylvania. IEC West Application at ¶ 6.

17. On December 27, 2017, Transource filed an application with the Commission seeking approval to site and construct the Pennsylvania portion of the Furnace Run-Conastone 230 kV Transmission Line in portions of York County, Pennsylvania. *Application of Transource Pennsylvania, LLC for Approval of the Siting and Construction of the 230 kV Transmission Line Associated with the Independence Energy Connection – East project in portions of York County*, Docket No. A-20172640195 (IEC East Application).

18. The Furnace Run-Conastone 230 kV Transmission Line extends 15.7 miles to connect the existing Conastone Substation located near Norrisville, Harford County, Maryland to the proposed Furnace Run Substation in York County, Pennsylvania, of which, 12.7 miles will be located in Pennsylvania. IEC East Application at ¶ 6.

19. On May 15, 2018, Transource filed a Petition for a Finding that a Building to Shelter Control Equipment at the Rice Substation in Franklin County, Pennsylvania is Reasonably Necessary for the Convenience or Welfare of the Public. *Petition of Transource Pennsylvania, LLC for a Finding that a Building to Shelter Control Equipment at the Rice Substation in Franklin County, Pennsylvania is Reasonably Necessary for the Convenience or Welfare of the Public*, Docket No. P-2018-3001878.

20. In addition to constructing, owning and operating the Rice-Ringgold 230 kV Transmission Line, Transource seeks approval to construct, own, and operate the proposed Rice Substation. *Id.*, Petition ¶ 7. The Rice-Ringgold 230 kV Transmission Line and the Rice Substation compose the West Portion of the IEC Project.

21. On May 15, 2018, Transource filed a Petition for a Finding that a Building to Shelter Control Equipment at the Furnace Run Substation in York County, Pennsylvania is Reasonably Necessary for the Convenience or Welfare of the Public. *Petition of Transource Pennsylvania, LLC for a Finding that a Building to Shelter Control Equipment at the Furnace Run Substation in York County, Pennsylvania is Reasonably Necessary for the Convenience or Welfare of the Public*, Docket No. P-2018-3001883.

22. In addition to constructing, owning and operating the Furnace Run-Conastone 230 kV Transmission Line, Transource sought approval to construct, own, and operate the proposed Furnace Run Substation. *Id.*, Petition ¶ 9. The Furnace Run-Conastone 230 kV Transmission Line and the Furnace Run Substation compose the original configuration of the East Portion of the IEC Project.

23. On May 15, 2018, Transource filed 133 eminent domain applications to acquire portions of Pennsylvania land to site and construct the IEC Project. *See Application of Transource Pennsylvania, LLC for Approval to Acquire a Certain Portion of the Lands of Various Landowners in York and Franklin Counties, Pennsylvania for the Siting and Construction of the 230 kV Transmission Line Associated with the Independence Energy*

Connection – East and West Projects as Necessary or Proper for the Service, Accommodation, Convenience, or Safety of the Public, Docket Nos. A-2018-3001881, *et al.*

24. On October 17, 2019, Transource filed several settlement agreements with the Commission, indicating an agreement had been reached between Transource, PPL Electric Utilities Corporation (PPL), York County Planning Commission (YCPC), Citizens to Stop Transource – York County (Citizens), Maple Lawn Farms, and Barron Shaw and Shaw Orchards. (Partial Settlement). By way of settlement, the Company agreed to propose an alternative configuration for the East Portion of the IEC Project. *Id.*, ¶ 9. Transource Ex. No. AA-1, Supplemental Attachment 3, p. 2.

25. On January 29, 2020, Transource filed an Amendment to its IEC East Application seeking to reroute the proposed Furnace Run-Conastone 230 kV Transmission Line to existing facilities in the Project area that are currently owned and operated by PPL Electric Utilities Corporation. Amended IEC East Application ¶ 38, 41.

26. The alternative configuration of the East Portion of the IEC Project consists of re-conductoring PPL's Manor-Graceton and Otter Creek-Conastone 230 kV Transmission Lines as double circuit lines and constructing two additional 2-mile segments to terminate the rebuilt PPL lines to the proposed Furnace Run Substation. Amended IEC East Application ¶ 42.

27. The additional 2-mile segments will be constructed over existing ROWs but will need to be expanded to accommodate the larger transmission lines. *Id.* While PPL will continue to own and operate the transmission line segments, Transource will continue to construct, own, and operate the Furnace Run Substation. Amended IEC East Application ¶ 41.

28. The Settlement IEC East Portion will utilize existing infrastructure and/or ROWs, affect fewer new landowners and parcels, and impact fewer natural resources. PPL Electric St. No. AA-5, p. 5.

29. The entire alignment for the Settlement IEC East Portion consists of parcels that currently have ROW agreements or are owned in fee by PPL Electric. The Settlement IEC East Portion uses existing infrastructure for majority of the length of the line by adding a second circuit onto the existing transmission lines. PPL Electric St. No. AA-5, pp. 5-6.

30. The four-mile Furnace Run 230 kV Transmission Line corridor is the only section of the Settlement IEC East Portion that will require widening of existing ROWs. PPL Electric St. No. AA-5, p. 6.

31. The Settlement IEC East Portion will minimize requirements for new ROWs and potential impacts to new property owners. PPL Electric St. No. AA-5, p. 6.

32. The Settlement IEC East Portion will result in less overall environmental impacts relative to the originally proposed route. PPL Electric St. No. AA-5, pp. 6-7.

33. The Settlement IEC East Portion will involve less tree clearing (19.3 acres) relative to the originally proposed route (51.7 acres), which reduces the forest fragmentation effects and potential impacts to threatened and endangered species that use forest habitat. PPL Electric St. No. AA-5, p. 6.

34. The Settlement IEC East Portion is anticipated to have less total impact when compared to the original Proposed Route for the IEC East Project. PPL Electric St. No. AA-5, p. 7.

C. Need for the Independence Energy Connection Project

35. Congestion occurs when the least costly resources that are available to serve load in a given region cannot be dispatched because transmission facility limits constrain power flow on the system. Transource St. 3 at 24.

36. As part of the Market Efficiency Process, PJM can consider (i) accelerating reliability-based enhancements or expansions already included in the Regional Transmission Plan that if accelerated also could relieve one or more economic constraints; (ii) modifying reliability-based enhancements or expansions already included in the Regional Transmission Plan that as modified would relieve one or more economic constraints; and (iii) adding new enhancements or expansions that could relieve one or more economic constraints, but for which no reliability-based need has been identified. Transource St. 7-R, Exh. No. SRH-3R at 10.

37. When congestion is identified on the bulk transmission grid and no currently approved projects can alleviate that congestion, PJM opens up a competitive selection process soliciting proposals from third parties to mitigate this congestion. Transource St. 3 at 5; Transource St. 7-R, Exh. SRH-3R at 11.

38. PJM's competitive solicitation planning process is based on a sponsorship model, meaning that PJM considers only those project proposals as submitted through its competitive proposal windows. All project proposals submitted are reviewed by PJM and presented to the TEAC. Transource St. 7 at 27-28.

39. During its review process, PJM performs a benefit-cost analysis on each project submission to determine whether the new facilities can lower costs to customers, and that the benefits of the project exceeds its costs by or above a certain required ratio. Amended and Restated Operating Agreement of PJM Interconnection, LLC, PJM Interconnection, LLC Rate Schedule FERC No. 24, Docket No. ER11-4040-000, Schedule 6, Section 1.5.7(d).

40. In order for a market efficiency project to be considered for approval, the benefit-cost ratio must exceed a ratio of 1.25:1. Amended and Restated Operating Agreement of PJM Interconnection, LLC, PJM Interconnection, LLC Rate Schedule FERC No. 24, Docket No. ER11-4040-000, Schedule 6, Section 1.5.7(d).

41. The benefit-cost ratio is calculated by dividing the present value of the total annual benefit for each of the first 15 years of the life of the enhancement or expansion by the present value of the total annual cost for each of the first 15 years of the life of the enhancement or expansion. Transource St. 3 at 18-19.

42. PJM utilizes a computer simulation software known as PROMOD to calculate the total benefit for a market efficiency project. Transource St. 7-R at 24. PROMOD forecasts future congestion over a specified period on the bulk electric grid. The model then determines what the difference in net load payments would be without and with a proposed market efficiency project. *See e.g.* Transource St. AA-3, Exh. TJH-AA3.

43. Net Load Payments are defined as gross load payments minus any financial transmission rights hedges. Tr. 2608-2609. Gross load payments are calculated as the zonal Locational Marginal Pricing (LMP) times the megawatt of load associated with those specific zones. Financial transmission rights hedges are pre-determined congestion hedges allocated to load customers, and thus removed from gross load payments. *Id.*

44. The change in net load payments is measured for all of PJM's transmission zones over a period of 15 years starting from the RTEP Study Year and discounted to present value. OCA St. 1 at 8-9.

45. The benefits for a Lower Voltage Market Efficiency Project, such as the IEC Project, are defined as 100 percent of the change in net load payments over a period of 15 years from the RTEP Study Year, discounted to present value. OCA St. 1 at 7-9; Transource Hearing Exh. 18. This excludes the change in net load payments for transmission zones that would see an overall increase as a result of constructing the market efficiency project. OCA Hearing Exh. 1, Transource Response to OCA-II-15.

46. The cost of a market efficiency project is defined as the present value revenue requirement that benefitting transmission zones would be expected to pay over a period of fifteen years beginning in the RTEP Study Year. OCA St. 1 at 11.

47. Once a market efficiency project is selected, PJM conducts annual re-evaluations to determine if the project still meets the 1.25:1 benefit-cost ratio. Transource St. 7-R, Exh. SRH-3R at 14-15.

D. Congestion on the AP South Reactive Interface

48. Prior to 2014, the AP South Reactive Interface had experienced a large amount of congestion costs on an annual basis. OCA St. 3 at 12.

49. Congestion on the AP South Reactive Interface totaled approximately \$800 million from 2012 to 2016. Transource St. 3 at 25.

50. The IEC Project was specifically designed to address congestion on the AP South Reactive Interface. Transource St. 3 at 24, Transource St. 8-R, Exh. TH-5R at 2

51. In 2014, congestion costs on the AP South Reactive Interface was approximately \$486.8 million, or 25.2 percent of total PJM congestion costs experienced that year. OCA St. 3 at 12.

52. In 2016, congestion costs on the AP South Reactive Interface was approximately \$16.8 million, or 1.6 percent of total PJM congestion costs experienced that year. OCA St. 3 at 12.

53. In 2017, congestion costs on the AP South Reactive Interface was approximately \$21.6 million, or 3.1 percent of total PJM congestion costs experienced that year. OCA St. 3 at 12.

54. In 2018, congestion costs on the AP South Reactive Interface was approximately \$20.8 million, or 1.6 percent of total PJM congestion costs experienced that year. Monitoring Analytics, LLC, 2018 State of the Market Report for PJM at 533. OCA M.B. at 38.

55. In 2019, congestion costs on the AP South Reactive Interface was approximately \$14.5 million. Tr. at 2921.

56. Through the first quarter of 2020, congestion on the AP South Reactive Interface was less than \$900,000, failing to reach the top 25 most congested constraints on the PJM system. OCA Hearing Exh. 6 at 559.

57. Since the selection of the IEC Project peak demand in the PJM region has decreased. OCA St. 2 at 16. When the proposal for the IEC was submitted in 2015, the most recent summer peaks for BGE, Pepco, and Dominion were from 2014 and totaled 31,773 MW. *Id.* By 2017, these peak loads had decreased to 31,450 MW. *Id.* The 2018 forecast of the 2020 peak load for the three companies, at 33,016 MW, has dropped by more than 3,300 MW in the past three years. *Id.*

58. Congestion event hours on the AP South Reactive Interface has dropped precipitously beginning in 2015. The day ahead congestion hours over the 2008-2014 period averaged 4,259 hours per year at the AP South Reactive Interface. This dropped to an average of 1,225-day ahead congestion hours per year for the 2015-2017 period. OCA St. 3 at 10-12.

59. This downward trend is continuing in light of the coronavirus (COVID-19) pandemic since March 2020. OCA Hearing Exhibit No. 3, Transource Response to OCA-XLVIII-1. During March and April 2020, weekday peak loads were ranging anywhere between 6.5% and 15.2% lower than originally projected. *Id.* PJM's load forecasts will be impacted for the foreseeable future. *Id.*, Att. at 8-9.

60. Decreases in PJM's load forecast can reduce the projected benefits of the IEC Project. Transource St. AA-3, Exh. TJH-AA3. A one percent decrease reduces the expected decrease in net load payments for the benefitting zones by approximately \$73.57 million, from \$844.8 million to \$771.23 million. Transource St. AA-3, Exh. TJH-AA3 at 3, 22.

E. Excluding Detrimental Impacts from PJM's Benefit-Cost Methodology

61. When measuring the benefits of a market efficiency project, PJM excludes increased costs that are experienced as a result of constructing that project. Transource St. 7-R, Exh. SRH-3R at 12-13; *see also* OCA Hearing Exh. 1, Transource Response to OCA-II-15.

62. When calculating the benefits of the IEC Project, Transource calculated the reduced power costs (primarily in MD-DC-VA) from being able to import lower-cost power into that region; but it failed to subtract from those benefits the higher costs that would result in other regions (including Pennsylvania) because they would no longer have the benefit of that same lower-cost power. OCA St. 1 at 24; *see also* Transource St. AA-3, Exh. TJH-AA3, OCA Hearing Exh. 3, Transource Response to OCA-XLIII-4

63. The purpose of a benefit-cost analysis is to attempt to capture the likely consequences of an activity, and to express those consequences in the same units (dollars, in this case) so that they can be compared. OCA St. 1 at 23.

64. For Regional Market Efficiency Projects (voltages above 500 kV, or double circuit facilities planned to operate at voltages of at least 345 kV, but less than 500 kV), PJM previously included in its benefit calculation transmission zones that experience an increase in wholesale power prices. OCA Cross Ex. 4 at 4, 8. In 2014, PJM removed this from the benefit calculation to “increases [sic] the number of projects that could qualify as a market efficiency project.” *Id.*, at 8.

65. Under a proper benefit-cost analysis, the Company's most recent re-evaluation of the IEC Project demonstrates that it would decrease wholesale power prices in certain transmission zones by approximately \$845 million and increase wholesale power prices in other transmission zones by approximately \$812 million for a net benefit of \$32 million. OCA Hearing Exh. 3, Transource Response to OCA-XLIII-4. When dividing the net benefit of the IEC Project by the present value revenue requirement of the IEC Project that amounts to a benefit-cost ratio of 0.06.

F. PJM Changes to its Benefit-Cost Methodology

66. In 2014, PJM initiated a proceeding before the Federal Energy Regulatory Commission at Docket No. ER14-1394-000 to modify portions of its existing benefit-cost methodology. Transource St. 7-R at 13.

67. For lower voltage market efficiency projects, PJM modified the benefit metric from its current 70/30 weighted split between the change in production cost and change in net load payment (for Energy Benefit) to 100 percent change in net load payments (for Energy Benefit). OCA Cross Exh. at 9.

68. The total change in energy production costs refers to the change in system generation variable costs (*i.e.* fuel costs, variable operating and maintenance costs, and emissions costs) associated with total PJM energy production or the amount by which the Project would lead to the more efficient use of generation resources throughout all of PJM. OCA St. 1-SR at 9.

69. With respect to Regional and Necessary Lower Voltage Market Efficiency Projects, PJM proposed to modify the benefit metric from its current 70/30 weighted split between the change in production cost and change in net load payment (for Energy Benefit) to 50/50 percent split. OCA Cross Exh. 4 at 6.

70. The IEC Project's production cost savings was forecasted to be approximately \$260.13 million in its September 2018 re-evaluation. OCA St. 1SR at 9.

71. Under PJM's methodology for higher-voltage market-efficiency projects, system level production cost savings would receive a 50% weighting in determining the project's benefits. The other 50% would be made up of savings in the benefiting zones. OCA St. 1SR at 10. If that methodology were used for this Project based upon its September 2018 re-evaluation results, it would result in the Project's 15-year discounted "benefits" being calculated to be: $(50\% \times \$260.13 \text{ million}) + (50\% \times \$707.29 \text{ million}) = \483.71 million . *Id.* This is less than the

Project's 15-year discounted cost of \$498 million, meaning that the Project would fail to provide a benefit-cost ratio of 1.0, let alone PJM's required ratio of 1.25 or higher. *Id.*

72. PJM's most recent analysis of the IEC Project, inclusive of the alternative configuration of the East Portion of the IEC Project, indicates that if the Project were constructed PJM would experience system-wide savings of approximately \$150 million, much less than what was forecasted in September 2018. Transource Ex. TJH-AA3.

73. In December 2018, PJM sought approval from FERC to modify the PROMOD simulation used to forecast the benefits of a market efficiency project by removing from the simulation all potential future generation with an executed Facilities Study Agreement (FSA Generation). Transource Hearing Exh. 19 at 1.

74. A Facilities Study Agreement (FSA) is a signed agreement between the customer, or the developer of the proposed generation, and PJM to identify the scope of facility additions and upgrades to be included in the Facilities Study. PJM Manual 14A at 68.

75. Thirty-six (36) percent of generation with an executed FSA reaches commercial operation. Transource Hearing Exh. No. 19 at 3.

76. FERC issued an Order adopting this change to the PROMOD model used to simulate future congestion on the bulk electric grid. Transource Hearing Ex. No. 19 at 12.

77. PJM's September 2018 PROMOD analysis showed that the benefit-cost ratio of the IEC Project was 1.40. OCA St. 1 at 33. The model showed that there would be a decrease of \$707.29 million in net load payments over a period of 15 years, excluding those zones that experience an increase. *Id.*

78. After excluding executed FSA generation from the model, PJM determined that the benefit-cost ratio of the IEC Project in February 2019 was 2.17. Transource Hearing Exh. No. 6. The model showed that there would be a decrease of \$982.07 million in net

load payments over a period of 14 years, excluding those zones that experience an increase. OCA Hearing Exh. No. 2 at 2. That is a difference of approximately \$275 million between the two simulations.

79. In the IEC Project's most recent re-evaluation FSA Generation was not included in the model used to simulate the benefits of the Project. OCA Hearing Exhibit No. 3, Transource Response to OCAXLVII-3. This included removing significant future solar capacity and other low-cost generation that may be online in future years in Virginia and Maryland. OCA Hearing Exhibit No. 3, Transource Response to OCAXLVII-4.

80. Virginia passed the Grid Transformation and Security Act of 2018, encouraging the construction of renewable energy sources and the implementation of demand-side management programs. OCA St. 3 at 19-20.

81. The District of Columbia City Council passed an Act requiring that 100 percent of electric energy used in Washington D.C. should be supplied by solar power by 2032. CLEANENERGY DC OMNIBUS AMENDMENT ACT OF 2018, D.C. Act 22-583 (2019).

82. In November 2018, PJM ran a generation deliverability test without the IEC Project to determine if the existing transmission system without the Project could deliver energy from one aggregate of generation in one area to the aggregate of load in another. Transource St. 7-R at 22.

83. As a result of this generation deliverability test, PJM identified potential future n-1 Single Contingency Reliability Criteria Violations occurring in 2023 in the absence of constructing the IEC Project. Transource St. 7-R at 21. This includes overloads on the following: (1) Three Mile Island 500/230 kV Transformer, (2) Hunterstown-Lincoln 115 kV Line, (3) Lincoln Tap-Lincoln 115 kV line, and (4) Lincoln-Straban 115 kV Line. *Id.* The generation deliverability test also identified a potential future n-0 Reliability Criteria Violations occurring in 2023 in the absence of constructing the IEC Project on the Peach Bottom-Conastone 500 kV Line. *Id.*, *see also*, Transource St. 7-RJ-Supp at 2.

84. This Project is a market efficiency project designed to address congestion on the AP South Reactive Interface. Transource St. 8-R, Exh. TH-5R at 2.

85. It was not until November 2018, several months after the OCA's direct testimony in this proceeding, that PJM identified possible reliability violations occurring in the future if the Commission rejects the IEC Project for approval. Transource St. 7-R at 21.

86. The Company has repeatedly denied that this is a reliability project needed to resolve reliability violations. Tr. at 2926; Transource St. 7-RJ-SUPP at 3.

87. The generation deliverability test is a subset of tests that PJM conducts to ensure compliance with reliability criteria. OCA St. 2-SSR at 16-17.

88. PJM did not perform its full suite of reliability tests to confirm or clarify the existing, nature, or scope of the alleged potential future reliability violations. Transource St. 7-RJ-SUPP at 3.

89. Many of the facilities that are expected to overload in 2023 are older facilities that are likely to be in need of replacement in the next few years. OCA St. 2-SSR at 9-10. OCA St. 2-SSR-10; OCA Hearing Exh. 5, MAIT Response to OCA-XXXVII-1.

90. Since the last generation deliverability test, two additional projects have been approved by PJM involving facilities that were projected to be overloaded in 2023: a rebuild of Mid-Atlantic Interstate Transmission LLC's Hunterstown-Lincoln 115 kV line and Project 5E, which involves re-conductoring BGE's Conastone-Graceton and Raphael Road-Northeast 230 kV lines together with adding bundled conductors to the Graceton-Bagley-Raphael Road double circuit lines. Transource St. AA-2, Exh. SRH-AA2 at 13.

91. PJM has not run another generation deliverability test to determine if Project 5E and the Hunterstown-Lincoln 115 kV projects are sufficient to cure any potential

future reliability violations without the IEC Project. OCA Hearing Exh. 3, Transource Response to OCA-XLIII-10.

92. PJM has a process to timely deal with any potential future reliability violations if the IEC Project is not approved. Transource St. 7-R at 24-25.

G. Subsequent Re-Evaluations of the IEC

93. PJM's licensed-computer software presents a forward looking picture over a period of approximately fifteen years into the future, which includes numerous, diverse variables, assumptions, and forecasts that must be simulated, including, but not limited to: new sources of generation, retired generation, forecasted load, changes to transmission topology, fuel and other economic data, monitored flow gates for systems adjoining PJM, and energy efficiency and demand response initiatives. *See* Transource St. 7-R at 30-32, TPA St. 8-R at 23

94. Each variable and forecast simulated in the model may be based upon further assumptions needed to identify a realistic expectation of future changes. For example, forecasted load incorporates within it equipment indices that reflect trends in energy efficiency (state-approved and other), demand response, and distributed energy. Transource St. 8-R at 16.

95. As part of its market efficiency process, PJM performs a sensitivity analysis demonstrating what the change to the benefit-cost ratio would be under certain circumstances. Transource St. 8-R, Exh. TH-3R at 21.

96. In certain sensitivity scenarios, such as whether the cost of natural gas was higher than expected, the benefit-cost ratio of the IEC Project decreases. Transource St. 8-R, Exh. TH-3R at 21.

97. In September 2017, the impacts of the IEC Project were re-evaluated according to PJM's annual Regional Transmission Planning Process. PJM Manual 14B: PJM Region Transmission Planning Process, Section 2.6.8: Ongoing Review of Project Costs. A year

after PJM's initial approval, the IEC Project was now forecasted to lower the cost of wholesale power prices in the PJM region by approximately \$611.48 million dollars, or approximately \$610 million less than the previous year's projections. OCA St. 1 at 30.

98. In September 2017, the IEC Project would increase wholesale power prices in the PJM region by approximately \$326.57 million, or \$524 million less than the previous year's projections. *Id.* According to PJM's benefit-cost methodology, the benefit-cost ratio of the project fell to 1.3. OCA St. 1 at 20-21.

99. The same transmission zones that were shown to primarily benefit in August 2016, still benefited, but to a much smaller degree. Similarly, the zones that were harmed in the September 2016 evaluation, would still face increased wholesale power prices, but to a much smaller degree. OCA St. 1 at 20-21.

100. Under the September 2018 re-evaluation, PJM's simulations now demonstrated that the IEC Project would lower the cost of wholesale power prices in the PJM region by approximately \$707.29 million, or approximately \$96 million more than the September 2017 simulation. OCA St. 1 at 21.

101. The IEC Project in September 2018 would now increase wholesale power prices in the PJM region by approximately \$690 million, or approximately \$363.43 million more than the September 2017 simulation. OCA St. 1 at 33. PJM's simulation demonstrated a net decrease of approximately \$17 million in wholesale power prices across the entire PJM region, the smallest net difference since approval of the IEC Project. *Id.*

102. According to PJM's cost-benefit methodology in September 2018, the benefit-cost ratio of the project, which did not take into account any increases in wholesale power prices, increased to 1.42. After this evaluation, PJM's simulations showed a significant shift in the benefitting and harmed zones. For example, six PJM transmission zones that once experienced a benefit from the IEC Project were now forecasted to pay higher electric power prices. This list included the following: AEP, which is located in portions of Virginia, West

Virginia, and Ohio, Linden VFT Merchant Transmission Facility (LINDVFT) located in New Jersey, Commonwealth Edison Zone (COMED) located in Indiana, Hudson Merchant Transmission Facility (O66HVDC), Duke Energy Ohio and Kentucky Zone (DEOK) located in portions of Ohio and Kentucky, Dayton Power and Light Zone (DAY) located in Ohio, and the Duquesne Light Company Zone (DUQ) located in Western Pennsylvania. OCA Cross Exh. 10, OCA Cross Exh. 11. Under this simulation only four PJM transmission zones out of the existing twenty-four zones were projected to benefit from the IEC Project.

103. The February 2019 simulation projected that the IEC Project would lower the cost of wholesale power prices in the PJM region by approximately \$982 million dollars, or \$275 million more than the September 2018 simulation. OCA Hearing Exh. 2 at 2. Similarly, PJM's simulation projected the IEC Project would increase wholesale power prices in the PJM region by approximately \$969 million, or \$279 million more than the September 2018 simulation. *Id.*

104. Under the February 2019 simulation, PJM projected that there would be a net decrease of approximately \$13 million in wholesale power prices across the entire PJM region. *Id.* According to PJM's cost-benefit methodology, the benefit-cost ratio of the project for this re-evaluation was 2.17. The PJM transmission zones primarily benefitting from the IEC Project once again are DOM, PEPCO, BGE, APS, and AEP. Moreover, COMED, DAY, and DUQ, which were originally supposed to benefit from the IEC Project only to recognize detrimental impacts in subsequent re-evaluations, are once again benefiting from the IEC Project, yet to a much smaller degree than before. LINDVFT, O66HVDC, and DEOC, which were once expected to benefit from the IEC Project, were still projected to be harmed if this Project is built. Lastly, though more zones are projected to benefit from the IEC Project than the September 2018 re-evaluation, the majority of PJM transmission zones were still expected to experience an increase in wholesale power prices as a result of the IEC Project. Tr. at 2616.

H. Impacts to the PJM Region

105. In December 2019, Transource submitted PJM's latest re-evaluation of the economic benefits of the IEC Project, inclusive of the alternative IEC East Portion of the Project. Transource St. No. AA-3, TPA Ex. TJH-AA3. Specifically, the Company's most recent evidence alleges that the IEC Project will have a benefit-cost ratio anywhere from 1.46 to 1.66, depending upon the cost of the project and load simulated in future years. TPA St. No. AA-3 at 4.

106. The Company provides a more detailed breakdown claiming that for the zones that benefit, *i.e.* the zones that will experience a decrease in wholesale power prices, will realize over \$844 million in decreased power prices over a period of fifteen years between 2023 and 2037, discounted to present value. OCA Hearing Exh. 3, Transource Response to OCA-XLIII-4. The transmission zones that are harmed will experience increased wholesale power prices of approximately \$812 million over that same period of time. *Id.*

107. Under the latest simulation, load-serving entities in the following states would experience increased wholesale power prices as a result of the IEC Project: portions of Pennsylvania, Maryland, New Jersey, Delaware, Kentucky, Ohio, and Illinois. OCA Hearing Ex. No. 3, Transource Response to OCA-XLIII-4; OCA Cross Exh. 10, Tr. 2613-2616.

108. As demonstrated in the most-recent simulation, load-serving entities in the PECO Transmission Zone, located in Southern Pennsylvania, would experience an increase of approximately \$144 million in wholesale power prices over a 15-year period, those in the PLGRP Transmission Zone, located in Eastern Pennsylvania, would experience an increase of \$166 million, those in the PSEG Transmission Zone, located in New Jersey, would experience an increase of \$138 million, those in the METED Transmission Zone, located in central-Southern Pennsylvania, would experience an increase of \$67 million, those in the JCPL Transmission Zone, located in New Jersey, would experience an increase of \$86 million, those in the PENELEC Transmission Zone, located in central and Northern Pennsylvania, would experience an increase of \$50 million, those in the DPL Transmission Zone, located in Eastern Maryland and Delaware, would experience an increase of \$59 million, those in the AECO Transmission

Zone, located in New Jersey, would experience an increase of \$32 million, those in the FE-ATSI Transmission Zone, located in Northern Ohio, would experience an increase of \$24 million, those in the NEPTHVDC Transmission Zone would experience an increase of \$15 million, those in the RECO Transmission Zone, located in Northern New Jersey, would experience an increase of \$4 million, those located in the DUQ Transmission Zone, located in Western Pennsylvania, would experience an increase of \$1 million, those in the DEOK Transmission Zone, located in Southern Ohio and Northern Kentucky, would experience an increase of \$8 million, and those in the COMED Transmission Zone, located in Southern Illinois, would experience an increase of \$16 million. OCA Hearing Exh. 3, Transource Response to OCA-XLIII-4, OCA Cross Exh. 10, 11.

109. As demonstrated in the most-recent simulation, load-serving entities in the DOM Transmission Zone, located in Virginia and Northern North Carolina, would experience a decrease of approximately \$406 million in wholesale power prices over a 15-year period, those in the PEPCO Transmission Zone, located in Washington D.C. and Eastern Maryland, would experience a decrease of \$171 million, those in the BGE Transmission Zone, located in central Maryland, would experience a decrease of \$107 million, those in the APS Transmission Zone, located in West Virginia, Virginia, Maryland, and Western Pennsylvania, would experience a decrease of \$60 million, those in the AEP Transmission Zone, located in Virginia, West Virginia, Ohio, and Kentucky, would experience a decrease of \$84 million, those in the DAY Transmission Zone, located in Western Ohio, would experience a decrease of \$9 million, and those in the EKPC Transmission Zone, located in Eastern Kentucky, would experience an decrease of \$7 million. OCA Hearing Exh. 3, Transource Response to OCA-XLIII-4, OCA Cross Exh. 10, 11.

110. According to PJM's December 2019 analysis of the IEC Project, when netting any cost savings recognized by those Transmission Zones benefiting from the IEC Project against any increased costs to those Transmission Zones impacted by the IEC Project, the total impact of the IEC Project is a net decrease of \$32.5 million in wholesale power prices over a period of 15 years. OCA Hearing Exh. 3, Transource Response to OCA-XLIII-4.

111. The costs to construct the IEC Project must be collected from load-serving entities in the transmission zones that do benefit from this project, *i.e.* load-serving entities in Virginia, Maryland, Washington D.C., and Western Pennsylvania. Transource St. 8-R, Exh. TH-3R at 28. The greater a transmission zone benefits from the IEC Project, the more costs that transmission zone is expected to pay. OCA St. 1 at 36-37.

112. Over the first 15 years of the service life of the IEC Project, the IEC Project has a revenue requirement of approximately \$527.6 million, discounted to present value, based upon a Project capital cost of \$496.17. Transource St. AA-3, Exh. TJH-AA3 at 4.

113. The IEC Project is not subject to a cost cap and is entitled to seek any reasonable and prudent expenses that exceed the estimated cost of the IEC Project. The benefitting zones would be required to pay any additional overrun. Applications, Att. 2, App. 2.3; Tr. at 2111-12.

114. Congestion is a natural economic occurrence sending energy price signals to load-serving entities on the constrained side to build additional low-cost generation to mitigate congestion. Tr. at 2266.

115. Constructing the IEC Project will create reliance on distant generation resources located North and South of the constraint, rather than local, low-cost generation, making the system less reliable as a whole. Tr. at 2396-97.

116. Monitoring Analytics, LLC is the Independent Market Monitor of PJM and is charged with promoting a robust, competitive, and nondiscriminatory electric power market in PJM. Tr. at 2619.

117. In the Independent Market Monitor's most recent PJM State of the Market Report, the Independent Market Monitor recommended that PJM's market efficiency process be eliminated. Tr. at 2619- 2620.

118. Dr. Richard L. Leshner, retired President of the United States Chamber of Commerce in Washington D.C., was born and raised in Franklin County and returned to Chambersburg when he retired. Leshner Exhibit 1; PUC Exhibits 159-161.

119. There is no need for the project as not only has demand for electricity flattened, but Baltimore Gas and Electric, PEPCO and other utilities in the Baltimore-Washington D.C. area are ramping up buying green energy and producing some themselves. Leshner Exhibit 1 at 10.

I. Impacts to Pennsylvania

120. The latest re-evaluation of the ‘benefits’ of the IEC Project demonstrates that of the Company’s purported \$845 million in economic ‘benefits,’ approximately \$27 million will accrue to load-serving entities in Western Pennsylvania in the first fifteen years of the IEC Project’s useful life, or approximately 3.2 percent of the total purported ‘benefits.’ OCA Hearing Exh. 3, Transource Response to OCA-XLIII-15.

121. The APS zone is composed of a portion of Western Pennsylvania, West Virginia, Maryland, and Virginia. OCA Cross Exh. 10.

122. PJM’s latest re-evaluation indicates that APS will see reduced wholesale power prices of approximately \$60 million over the first 15 years of the Project’s service life. OCA Hearing Exh. 3, Transource Response to OCA-XLIII-15.

123. Pennsylvania’s share of the benefits measured approximately 44.75 percent. OCA St. 1, Sch. SJR-6.

124. Under the most recent re-evaluation, the IEC Project will lead to an increase in wholesale power prices in Pennsylvania of approximately \$429 million over the first fifteen years of the Project’s service life. OCA Hearing Exh. 3, Transource Response to OCA-XLII-15.

125. The increase in wholesale power prices in Pennsylvania of approximately \$429 million includes increases of approximately \$166.1 million in the PLGRP Transmission zone, \$143.6 million in the PECO Transmission Zone, \$66.7 million in the METED Transmission Zone, \$50.3 million in the PENELEC Transmission Zone, \$1.8 million in the FE-ATSI Transmission Zone, and \$0.9 million in the DUQ Transmission Zone. OCA Hearing Exh. 3, Transource Response to OCA-XLII-15.

126. PJM's latest re-evaluation indicates that FE-ATSI will see increased wholesale power prices of approximately \$24.5 million over the first 15 years of the Project's service life. OCA Hearing Exh. 3, Transource Response to OCA-XLIII-15.

127. Pennsylvania only comprises a portion of the FE-ATSI Transmission Zone. OCA St. 1, Sch. SJR-6 at 2.

128. To calculate Pennsylvania's share of the detriment, the OCA's witness measured Pennsylvania's percentage of peak demand contributed to the FE-ATSI system in the summer of 2018, which was approximately 7.20 percent. OCA St. 1, Sch. SJR-6.

129. Pennsylvania would likely experience approximately \$1.8 million in increased wholesale power prices from the FE-ATSI Transmission Zone for the first fifteen years of the IEC Project's service life, or 7.20 percent of the FE-ATSI zone's detriment. OCA St. 1, Sch. SJR-6.

130. For the alternative IEC-East portion, the Furnace-Run to Conastone double circuit transmission line will be approximately 18 miles in total length, of which approximately 2 miles will be constructed in the expanded ROW with new transmission towers and 16 miles will be in the existing ROW on the existing towers. Amended IEC-East Application at 14.

131. The Furnace Run-Graceton double circuit transmission line will be approximately 11 miles in total length, of which approximately 2 miles will be constructed in the

expanded ROW with new transmission towers and 9 miles will be in the existing ROW on existing towers. Amended IEC-East Application at 14.

132. For the West Portion of the IEC Project, the Company seeks approval to construct a double-circuit 230-kV transmission line extending approximately 28.8 miles to connect the existing Ringgold Substation located near Smithsburg, Washington County, Maryland, and the proposed Rice Substation to be located in Franklin County, Pennsylvania. IEC-West Application at 4.

133. Approximately 24.4 miles of the IEC-West portion will extend across Franklin County of which approximately 13.6 miles will be built over presently unencumbered land. IEC-West Application at 3-4.

J. Health and Safety of the Public

134. Electromagnetic Fields (EMFs) are created whenever there is a flow of electricity. Transource St. No. 15-R at 7.

135. There are two types of EMF associated with alternating electric current—the electric field and the magnetic field. The electric field is created by the voltage, and the magnetic field is created by the flow of current. Transource St. No. 15-R at 7.

136. Common sources of 60 Hz EMF include wiring in homes, businesses and schools, lighting, home appliances, power tools and other electrical equipment. Transource St. No. 15-R at 8.

137. The EMF levels for the IEC Project were below the recommended ranges for public exposures and the magnetic fields are within the range that people experience in their normal living and working environments. Transource St. No. 15-R at 14.

138. Stray voltage is a voltage between two objects where no voltage should exist. Transource St. No. 15-R at 17.

139. Quincy Township, Franklin County was not notified of Transource's planned construction activities before drilling occurred, damaging several areas within the township. Tr. 861- 862, 864, 868, 985 - 986.

140. Depressions in roadways due to construction activities such as drilling are expensive to repair and can cause a depression that may cause someone to hit, be run off the road that cause injuries or possibly death. Tr. 861- 864, 868, 985 - 986.

141. Franklin County property owners object to Transource agents/employees coming on their property, and helicopters or drones flying over the properties. Tr. 864.

142. Property owners have valid concerns regarding the safety of using certain tools around the power lines and the spraying herbicides. Tr. 672, 690-691, 880, 915, 1052.

143. Farmers such as Allen and Lori Rice, Brian Brechbill, and Lois White of Franklin County with transmission lines already running through their fields, have experienced GPS equipment becoming unreliable when used under the power lines. Tr. 675, 705-707. PUC Exhibits 98-110.

144. Lois White has two monopoles already owned by West Penn Power on her property and it is very hard to maneuver large equipment around them. Tr. 705-707. PUC Exhibits 98-110.

145. Linda Mower's in-laws own an airstrip on their farm and are concerned for the safety of pilots taking off and landing near the monopoles. Tr. 916.

146. Homeowners expressed health concerns regarding the power lines. Tr. 670, 689, 696, 701, 790, 820, 828, 845, 853-858, 880, 914, 935, 957- 958, 1035, 1103- 1104.

147. Landowners with cows, horses and/or chickens are concerned the project will result in stray voltage that shock themselves and their animals and cattle owners fear their heifers would spontaneously abort their calves if they were living in close proximity to high voltage lines. Tr. 673-680, 689- 690, 716, 799, 829, 843, 876, 880- 881, 914, 963- 964, 1062, 1085, 1133, 1141, 1142, 1326. PUC Exhibits 242, 162-191.

148. The owners of Benedict's Produce are concerned that once the monopoles and wires are constructed, stray voltage may shock them while they work in their field. Tr. 1185-1196. PUC Exhibits 82-97.

K. Environmental Impact

149. Construction of the monopoles may adversely affect homeowners' wells and nearby aquifers and springs. Tr. 701, 1024, 1034, 1327-1328, 1333-1342, 1348-1349. PUC Exhibits 216-235.

150. Construction of monopoles through blasting, drilling, staging monopoles, and driving heavy equipment, may adversely affect wetlands and the Falling Spring in Franklin County, which has high quality springs and waterways that have trout hatcheries nearby and have been fished by former Presidents Carter and Eisenhower. Tr. 791, 1014- 1017, 1055- 1056, 1141.

151. The spring branch of the Falling Spring watershed is a limestone-fed spring that is widely considered one of the most abundant waterways on the East Coast for wild rainbow trout and new construction of power lines and defoliation as a result of construction will damage the spring. Tr. 1010 - 1051.

152. Transource maps do not show Falling Spring as wetlands when in fact it is. Tr. 1050.

153. Carl Helman lives along Falling Springs and has concerns about the wildlife that depend on the spring and the effects construction would have on the underground supports for his water supply system. Tr. 1071.

154. Drilling may damage an underground limestone spring that feeds the creek and Falling Spring. Tr. 789.

155. Janet Pollard works for the Franklin County Visitors Bureau, and is concerned that the preconstruction, construction, and maintenance of the monopoles disrupts wildlife habitats and has a negative impact on tourism in Franklin County. Tr. 944- 945.

156. Ann Fincuane lives across from a field that is known to get sinkholes almost every year. She is concerned about the monopoles that will be built there in relation to the reoccurring sinkhole issues. Tr. 1090.

157. Owners with wooded areas as part of their land are concerned about the destruction to vegetation that the towers would bring. Tr. 707.

158. The removal of forest areas will change animal habitats and plant life. Tr. 945.

159. There would be less environmental impact if instead of paralleling the proposed line through Franklin County with a West Penn Power and/or MAIT-owned transmission line, the project utilized the same ROW as existing transmission lines. Tr. 700-750.

L. Economic Impact

160. The Kauffman's farm at 4220 and 4297 Olde Scotland Road, Chambersburg will be adversely affected economically by the Route C, West line as it will cut through their farming fields along I-81. PUC Exhibits 54-70, Tr. 1153-1165.

161. Route C - West at mile marker 19 on I-81, will reduce the value of Fred Byers' rental property as the easement goes two feet over the farmhouse, and will overlap a current easement held by West Penn Power for its overhead line. Tr. 1168-1169, PUC Exhibits 71-83.

162. Benedict's Produce will sustain economic impact if the Route C West line is constructed at 1883 Ragged Edge Road, Chambersburg, as the proposed route including monopoles goes through the middle of his vegetable/produce growing field. Tr. 1173-1187, PUC Exhibits 82-97.

163. The owners of Benedict's Produce will likely sustain economic loss as a result of construction ruining their ability to plant, grow and harvest fruits and vegetables, which they in turn sell to 100 Giant Foods grocery stores. Tr. 1185-1196, PUC Exhibits 82-97.

164. The soils that will be affected by the project represent one of the largest contiguous areas of high-quality soil in Pennsylvania. Tr. 752- 760.

165. Todd Sommer, owner of Sommer Springs Farms and a supervisor for a utility company, has personally experienced utility companies bringing in their own crew after promising to hire local. Tr. 610.

166. The Owl's Club is affected by an eminent domain application in Franklin County regarding a 38-acre property used for trout fishing and other recreational activities. Tr. 1682-1683.

167. The Owl's Club requests the Commission veto the project or at least require Transource to propose a "piggy-backing" of the existing infrastructure already on the property. Tr. 1684, PUC Exhibits 404-407.

168. "The Pricing of Power Lines: a Geospatial Approach to Measuring Residential Property Values" authored by David Wyman and Christopher Mothorpe is a

study/report published in the American Real Estate Society, a trade journal, Volume 40, Issue No. 1 of 2018, which used a sample of 5, 455 vacant lots sold in Pickens County, South Carolina, uncovering substantive pricing discounts of 44.9% for properties adjacent to power lines, and a pricing discount of 17.9% for non-adjacent vacant properties up to 1,000 feet from the power lines. Tr. 1681-1691, PUC Exhibit 408.

169. Clint Barkdoll, as an individual, expressed concern that appraisers will rely upon the studies' findings and landowners "will rush into the County tax assessment office and file a tax appeal" based on this study, Tax Assessment Boards and the Courts are going to be required to grant lower tax assessment values, and they will "all pay for that in higher taxes and/or cuts to programs." Tr. 1686-1689.

170. James Quesenberry, Jr. is a York realtor who sells lots, farms, and residential homes and is aware that peoples' perceptions of transmission lines has an effect on sale ability and values. Tr. 125-126.

171. The proposed lines will likely negatively affect homeowners' real estate property values. Tr. 668-672, 678, 685- 686, 689- 691, 701, 705, 710, 762, 820, 830, 842, 851-859, 879, 915, 920, 937, 957, 1011, 1022, 1023, 1062, 1067, 1068, 1079, 1134.

172. Patrice Nitterhouse is a real estate developer who testified to concerns as to how the project will negatively affect the value of her property and her business as a developer. Tr. 762 - 763.

173. Colby Nitterhouse rejected a \$38,000 offer for a ROW through his property as he intends to subdivide and develop it for his children in the future. Tr. 1310, PUC Exhibits 192-197.

174. Carol A. Pugh from Franklin County asked how the project will affect her property value and the answer she received was, "there's too many variables to know." Tr. 798.

175. Project 9A will diminish the historical and tourism value of Georgiana Horst's farm, which is known as a Bicentennial Farm by the Department of Agriculture. Tr. 881.

176. Property owners in Franklin County with preserved land subject to conservation easements object to the project. Tr. 672, 674, 850-851.

177. Business owners and property owners testified to concerns over the effect on farm animals, growth of vegetation, crops and produce with the construction of the monopoles. Tr. 668- 669, 846 - 847, 850.

178. Project 9A will negatively affect local businesses and economic growth in York and Franklin Counties. Tr. 682, 694- 695, Tr. 715- 716, 880, 1059.

179. Roy Cordell is concerned he will not be able to access fields on his property for farming hay and other crops during construction of monopoles and lines on his 99+ acre property due to a "zig-zag" pattern on the maps. Tr. 1321-1324, PUC Exhibits 199-215.

180. Homeowners David Siegrist, Sharla Dunlap, Kristyn Martin and Ashley Hospelhorn on Hidden Valley Road, Waynesboro are concerned of reductions in the appraised values of their homes as well as of losing trees, a viewshed, and they have health concerns about residing so close to a second transmission line behind the road's cul-de-sac especially because there is already one existing. Tr. 1360-1376, PUC Exhibits 264-286.

181. Sharla Dunlap owns property that does not show up on Transource's map of the project and the line will be approximately 300 feet from her back porch. Tr. 826.

182. Franklin County is known for its agriculture, wildlife recreation, scenery, animal habitats, and historical features like the Underground Railroad and the IEC transmission lines will affect the tourist attraction to Franklin County. Tr. 943- 944-946.

183. Heather Stine's family of Franklin County, rents land to a local farmer who is certified organic with economic/environmental concerns over the spraying on the land that could affect revenue. Tr. 1079.

184. Many homeowners have valid concerns over the damage of fertile land being compacted or destroyed, trees, and crops when it comes to the construction and maintenance of the towers. Tr. 672, 675, 706-707, 800, 879- 880, 1019-1020.

185. Historical artifacts and sites in Franklin County may be destroyed with the construction of the monopoles. Tr. 669- 670.

186. The proposed power line will be less than 250 feet from Ruth Frech's house. Tr. 841.

187. Fred Rice is on the Guilford Township Zoning Board and they have a zoning law that a building cannot be over 50 feet high but the towers are going to be 130 feet. Tr. 877.

188. Georgiana Horst, co-owner of Horst Seed Hybirds, has no other retirement plan available to her with the exception of her farm that is her business. Tr. 881.

189. Travis Schooley, a chief water operator, engineering coordinator and grant writer for Quincy Township, has not received any information, map update, or permits, regarding the project, as they should according to the local ordinances. Tr. 888.

190. Heather Stine family owns land on the proposed route where it is believed to be a Native American Indian Burial site. Tr. 1078.

191. Leslie Bowman will be affected by this project and already has monopoles on their property. Tr. 1109.

192. The project would adversely impact the Chambersburg School District's Tim Cook Memorial Cross Country Course, which is used by both the middle school and high school boys and girls running teams. Chambersburg hosts many cross country meets from August – October that may have as many as 1,000 people and 300-400 cars to park at a meet. Tr. 1223.

193. The proposed power line would be on the Falling Springs Elementary School property parallel to and along the edge of the Tim Cook Memorial Cross Country Course, a 5000 kilometer/ 3.1 mile course. Tr. 1225.

194. Sarah Herbert is the building principal at Sinking Springs Elementary School. Tr. 1226.

195. Approximately 36 faculty and 275 students attend Falling Springs Elementary School on a daily basis when school is in session. Tr. 1277.

196. The proposed power line would be approximately 700 feet from the elementary school building according to Transource's map. Tr. 1228-1230.

197. Superintendent Padasak and the school board received some concerns from parents about the proposed line. Tr. 1230-1233.

198. Members of the public also run and walk the cross country course. Tr. 1235, 1238-1239.

199. Construction on the line between the months of August through October would interfere with the cross country season and would require the school district to relocate the activity at a cost of at least \$1,000 to bus the student-athletes elsewhere. Tr. 1236-1237.

200. Thirty-one student-athletes, parents, and alumni from the cross country teams submitted letters dated in November 2018 opposing the project. Nitterhouse Exhibit 1.

201. Skelly Meadows is Falling Spring fed and has unique fly hatches, which support wild trout in high-value, blue-ribbon trout stream. Tr. 1245-1246.

202. Transource intends to drill for monopoles directly above the springs along Falling Spring Road. Tr. 1257.

203. The springs could be damaged by blasting or changing of the rock formations underneath and by defoliation around the springs. Tr. 1248-1257.

204. The trout in the Falling Spring will be negatively affected if the Spring is defoliated as lack of foliation will likely result in higher water temperatures and trout do not tolerate warm water. Tr. 1255.

205. Jason Forrester farms organic crops such as corn, hay, soybeans on Allan Stine's property, which is adjacent to the cross country course. Tr. 1259-1261.

206. If Transource's project were to cross Allan Stine's property, that could cause Mr. Forrester to lose organic certification as Transource's construction trucks could carry contaminants onto the fields. Tr. 1262-1265.

207. Allen and Lori Rice run a 100-acre farm with 8,000-10,000 head of cattle and 40-50 employees in Franklin County. Tr. 1272-1273. PUC Exhibits 162-191.

208. Allen and Lori Rice are concerned about the effect the proposed line would have going over their high-temperature composting facility. Tr. 1276.

209. Mr. and Mrs. Rice's employees work on large farm equipment and they are concerned with stray voltage shocking them as they work in all kinds of weather conditions. Tr. 1277-1278, 1286-1287, PUC Exhibits 162-191.

210. Mr. and Mrs. Rice are concerned their heifers may have spontaneous abortions due to higher electricity in the area they are trying to raise their animals. Tr. 1282.

211. Mr. and Mrs. Rice are concerned the proposed project may negatively affect their well water. Tr. 1282-1283, 1291-1292.

212. Mr. and Mrs. Rice's tractors are steered by GPS, and they will likely become unreliable if Transource builds transmission lines over their property. Tr. 1289-1290.

213. Daniel Long is concerned the new transmission line parallel to an existing line will interfere with farming crops and will have a negative economic impact on the value of his property at 9949 Wayne Highway, Waynesboro. Tr. 1377-1381. PUC Exhibits 287-291.

214. Laura Mueller testified that the proposed towers would be "out of scale" with the beautiful landscape in Franklin County and she expressed concerns over transmission lines sparking fires. PUC Exhibit 413.

M. Availability of Reasonable Alternatives

215. The competitive model that PJM uses for resolving issues such as the congestion on the AP South Interfaces⁴ is referred to as a sponsorship model, where PJM looks at proposals that are submitted, identifies a solution, and the party who has submitted that proposal or sponsored that proposal is then designated to construct and later own, maintain and operate that facility. Tr. at 2272-2273.

216. Under PJM's sponsorship model, PJM can only review submitted proposals; and does not consider other solutions including the existence and potential upgrade of parallel transmission lines/facilities to a proposed project as well as alternative energy solutions designed to meet an additional need for transmission service. Transource St. 7-R at 27-28.

⁴ The AP South Reactive Interface is a set of four 500 (kV) transmission lines originating in West Virginia and terminating in Maryland and Virginia. OCA R.B. 1.

217. All evaluated solutions to congestion on the AP South Reactive Interface were transmission-based solutions. Transource St. 8-R, Exh. TH-3R at 17.

218. PJM cannot require generation to be built. Transource St. 7-RJ at 8.

219. Sufficient low-cost generation in the constrained side of a congestion constraint can mitigate congestion. Tr. at 2648-2649.

220. There are available non-wires alternatives that may address congestion on the AP South Reactive Interface including energy conservation, energy efficiency, demand response, solar resources, wind energy resources, and renewable energy storage. OCA St. 3 at 15-17.

221. PJM did not adequately consider energy efficiency resources, solar and wind renewable resources in combination with energy storage systems, and distributed generation resources. OCA St. 3 at 17-19.

222. In 2018, the Virginia General Assembly passed the Grid Transformation and Security Act of 2018, which became effective in March 2018, and finds that additional 5,000 megawatts (MW) of utility-scale solar and wind resource facilities are in the public interest, and encourages demand-side management programs capable of reduce customers' overall annual energy usage by 805 gigawatt-hours (GWh) and system peak demand by 304 MW by 2033. OCA St. 3 at 19-20.

223. The Maryland Legislature passed a law in April 2017 that mandated a 2% per year reduction in electric energy use. With Maryland's electric energy use in 2016 at over 93,000 GWH, the 2% mandate would be 1,868 GWH. OCA St. 3 at 24.

224. The District of Columbia's Department of the Environment conducted an analysis wherein they quantified the economic energy efficiency potential in the District of Columbia to be 5,537,521 MWh/yr. in 2022. In addition the District of Columbia's Department

of the Environment estimated that there is a technical potential of 2,498,000 MWh/year for rooftop PV and Urban Utility scale PV potential in the District of Columbia. OCA St. 3 at 22-24.

225. According to the United States Department of Energy 2016 Technical potential study, there is 7,861 MW's of CHP technical potential in the District of Columbia, Maryland, and Virginia.

226. PJM has not updated its modelling to include the Virginia Grid Transformation and Security Act of 2018, the 2017 Maryland law, or the Clean Energy D.C. Omnibus Act of 2018. Transource St. 7-R at 30.

N. Eminent Domain

227. Transource filed 133 Eminent Domain Applications on or about May 15, 2018.

228. Forty eminent domain applications pertained to properties in York County, and the remaining ninety-three pertained to Franklin County.

229. Since May 2018, Transource has acquired ROW easements with many of these landowners and withdrew fifty-six eminent domain applications, including an application against West Penn Power Company at A-2018-3002129, deemed withdrawn on December 31, 2018. *See* Fifth and Sixth Prehearing Orders.

230. West Penn Power (a losing bidder to the IEC project) initially protested the eminent domain application and intended to present testimony at the hearing; however, the transmission operators were able to agree to a ROW. Sixth Prehearing Order.

231. As a result of its agreement with PPL, Citizens and York County Planning Commission, Transource claims it has secured ROWs in York County necessary to complete that portion of the project.

232. Approximately seventy-seven eminent domain applications, however, remain pending against: Chambersburg Area School District, at A-2018-3002055, Guilford Water Authority at A-2018-3002048, DC Farms at A-2018-3002051, J. Ross McGinnis at A-2018-3001925, McGinnis Partnership at A-2018-3001929, the Patriot Federal Credit Union at A-2018-3002108, and Lowe's Home Centers, Inc. at A-2018-3002103, among others.

O. Zoning Exemption for Buildings/Shelters

233. No party argues against the zoning exemption for buildings/shelters to house substation equipment in this proceeding.

III. DISCUSSION

Applicant Transource is an electric transmission company and public utility subject to the regulatory jurisdiction of the Commission. 66 Pa. C.S. § 102. Transource Energy, LLC is the parent company of Transource. American Electric Power (AEP) in partnership with Evergy are the parent corporations to Transource Energy, LLC.

Transource has no customers in Pennsylvania; however, the parent company, Transource Energy, LLC, was awarded a contract with PJM to construct the IEC Project as a market efficiency project in portions of York and Franklin Counties as well as in Maryland in order to address perceived congestion in the Baltimore, Maryland – Washington D.C. areas outside of Pennsylvania.

Joint Applicant PPL to the IEC East Amended Application is a public utility and electric distribution company offering transmission services operating in the East portion of the IEC project, and is subject to the regulatory jurisdiction of the Commission. 66 Pa. C.S. § 102.

PPL furnishes electric distribution, transmission, and supplier of last resort services to approximately 1.4 million customers in a service area that includes approximately 10,000 square miles covering all or portions of twenty-nine counties in eastern and central Pennsylvania. PPL is a member of PJM Interconnection, LLC.

The consolidated proceedings before the Commission are applications of Transource at A-2017-2640200 for approval of the siting and construction of a 230 kV transmission line associated with the IEC – West Project in Franklin County and at A-2017-2640195, the Joint Application of Transource and PPL filed in January 2020, for approval of the siting and construction of a 230 kV line associated with the IEC-East Project in York County. Specifically, for the West Portion, the Company proposed to construct a Rice Substation in Franklin County and a new 230 kV transmission line extending 28.8 miles to connect the existing Ringgold Substation located near Smithsburg, Washington County, Maryland to the proposed Rice Substation in Franklin County, Pennsylvania, also known as the Rice-Ringgold 230 kV Transmission Line (collectively, the West Portion of the IEC Project). IEC West Application at 10-11. Of the 28.8 miles of the proposed Rice-Ringgold 230 kV Transmission Line, 24.4 miles will be located in Pennsylvania and this is the portion the Company is seeking approval to construct from this Commission, in addition to the Rice Substation. *Id.* at 11. With respect to the East Portion, the Company originally proposed to construct a Furnace Run Substation in York County and a new 230 kV transmission line extending 15.7 miles to connect the existing Conastone Substation located near Norrisville, Harford County, Maryland to the proposed Furnace Run Substation in York County, also known as the Furnace Run-Conastone 230 kV Transmission Line (collectively the original configuration of the East Portion of the IEC Project). IEC East Application at 10-11. Of the 15.7 miles of the proposed Furnace Run-Conastone 230 kV Transmission Line, 12.7 miles were to be located in Pennsylvania. *Id.* at 11.

As support for the IEC Project, the Company asserts that the IEC Project is a market efficiency project designed to relieve congestion on the AP South Reactive Interface, a set of four 500 kV transmission lines that originate in West Virginia and terminate in Maryland. Transource St. 3 at 7-8. The Company's evidence relies on the determinations that PJM made during its Regional Transmission Expansion Plan (RTEP) process. IEC West Application, Att. 2

at 2. PJM conducts a market efficiency analysis during its RTEP to find areas where congestion exists and seeks solutions to reduce congestion. *Id.* at 2-3. In this instance, PJM identified a constraint caused in part by the inability for additional electricity to flow East and South of the AP South Reactive Interface, which caused load-serving entities in Virginia, Maryland, and Washington D.C. to rely on higher-cost generation, rather than low-cost generation North and West of the constraint. Transource St. 3 at 25. The Company asserts that alleviating this constraint will lead to a more efficient use of generation resources across the PJM region and lower wholesale power prices for load-serving entities in Virginia, Maryland, Washington D.C., and a portion of Western Pennsylvania. *Id.* PJM's basis for selecting the IEC Project is that it exceeded the 1.25:1 benefit-cost threshold required under PJM's Operating Agreement for market efficiency projects, purportedly providing the most benefits of the projects submitted. Transource St. 3 at 31.

Transource and PPL seek approval for the siting and construction of the transmission lines, findings that the exercise of the power of eminent domain to acquire ROWs across tracts of land is necessary or proper for the service, accommodation, convenience or safety of the public, and a finding that a building to shelter control equipment at the Furnace Run Substation in York County and at the Rice Substation in Franklin County are reasonably necessary for the convenience or welfare of the public. A substantial portion of the IEC East Project is designed to utilize ROW already owned by PPL, thus minimizing the necessity to exert eminent domain over all of the proposed area. The genesis of this proposed project is discussed in the "Need" portion of the Discussion, below.

The basic threshold issue is whether Transource and PPL have demonstrated by substantial evidence that the project is needed. If the answer is yes, then the discussion can proceed to whether the routes selected are appropriate in terms of location, safety, health and environmental impacts, and costs, whether the eminent domain applications and shelter petitions for zoning exemptions should be granted, and whether the Company may begin construction before all other permits have been obtained.

A. Legal Standards

1. Burden of Proof

The proponent of a rule or order in any Commission proceeding has the burden of proof, 66 Pa. C.S. § 332, and Transource, as the Applicant, has the burden of proving its case by a preponderance of the evidence, or evidence which is more convincing than the evidence presented by the other parties. The proponent's evidence must fairly outweigh the probative value of any proof offered against its claim. *Se-Ling Hosiery v. Margulies*, 364 Pa. 45, 70 A.3d 854 (1950); *Samuel J. Lansberry, Inc. v. Pa. Pub. Util. Comm'n*, 578 A.2d 600 (Pa. Cmwlth. 1990).

Additionally, any finding of fact necessary to support an adjudication of the Commission must be based upon substantial evidence, which is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. *Mill v. Comm., Pa. Pub. Util. Comm'n*, 447 A.2d 1100 (Pa. Cmwlth. 1982); *Edan Transp. Corp. v. Pa. Pub. Util. Comm'n*, 623 A.2d 6 (Pa. Cmwlth. 1993), 2 Pa. C.S. § 704. More is required than a mere trace of evidence or a suspicion of the existence of a fact sought to be established. *Norfolk & W. Ry. V. Pa. Pub. Util. Comm'n*, 489 Pa. 109, 413 A.2d 1037 (1980); *Erie Resistor Corp. v. Unemployment Com. Bd. Of Review*, 166 A.2d 96 (Pa. Super. 1960); *Murphy v. Pa. Dept. of Pub. Welfare, White Haven Ctr.*, 480 A.2d 382 (Pa. Cmwlth. 1984).

The parties disagree on whether the burden of going forward shifts from one party to another. Transource argues that the "burden" shifts to the opponent if the applicant sets forth a prima facie case, and the OCA argues that the "burden of proof" never shifts from the applicant to show need for this project. Transource M.B. at 17, OCA M.B. at 1-2. OCA contends the burden of production may shift between parties during the course of a hearing; however, the burden of persuasion never leaves the party on whom it is originally cast. OCA RB at 7 citing *Nolan Wenger v. UGI Utils., Inc. – Gas Division*, Docket No. C-2008-2076768, 2009 Pa. PUC LEXIS 162 at 9 (Initial Decision entered September 18, 2009) and *Riedel v. Cnty. of Allegheny*,

633 A.2d 1325, 1328 (Pa. Cmwlth. 1993). I agree with OCA's description of the burden of proof in this proceeding.

2. Standards for Siting Applications

The parties differ regarding exactly what the Company must prove by a preponderance of the evidence. OCA cites Sections 332(a) and 1501 of the Public Utility Code, 66 Pa. C.S. §§ 332(a) and 1501. Pursuant to Sections 332(a) and 1501 of the Public Utility Code, the Company has the burden of proof to demonstrate that the IEC Project is necessary to maintain adequate, efficient, safe, and reasonable service and facilities. 66 Pa. C.S. §§ 332(a), 1501. Under the Commission's Regulations, the Company must demonstrate a need for the transmission line among other factors pursuant to 52 Pa. Code § 57.76(a). In light of the Commission's obligations under the Environmental Rights Amendment as outlined in *Pa. Env't'l Defense Foundation v. Commonwealth*, 161 A.3d 911, 930 (Pa. 2017) (*PEDF*), the Company has a heavy burden to meet each of the statutory and regulatory requirements for a transmission siting project that infringes upon the environmental rights of Pennsylvanians.

In addition, Section 1501 of the Public Utility Code provides in pertinent part:

§ 1501. Character of service and facilities.

Every public utility shall furnish and maintain adequate, efficient, safe, and reasonable service and facilities, and shall make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public. Such service also shall be reasonably continuous and without unreasonable interruptions or delay. Such service and facilities shall be in conformity with the regulations and orders of the commission

66 Pa. C.S. § 1501, *See also* PPL Main Brief at 18.

This statute *requires* Transource to furnish adequate facilities. The Commission granted a certificate of public convenience but did not predetermine a need for the project. In the

instant proceeding, Transource may not construct the IEC project unless it can show that the project is necessary or proper, and in conformity with the regulations issued by the Commission, which govern transmission line siting, discussed below. Falling short of proving the project is necessary or proper for the accommodation, convenience and safety of its patrons, employees and the public would be a violation of Section 1501 as unnecessary change constitutes inadequate service to the public. The proper standard is determined by applying the threshold “necessary or proper” standard in Section 1501 and reviewing the application in the context of compliance with the Commission’s regulations.

Similarly, Section 57.76 of the Commission’s regulations provides:

§ 57.76. Determination and order.

(a) The Commission will issue its order, with its opinion, if any, either granting or denying the application, in whole or in part, as filed or upon the terms, conditions or modifications, of the location, construction, operation or maintenance of the line as the Commission may deem appropriate. The Commission will not grant the application, either as proposed or as modified, unless it finds and determines as to the proposed HV line:

(1) That there is a need for it.

(2) That it will not create an unreasonable risk of danger to the health and safety of the public.

(3) That it is in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth.

(4) That it will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives.

(b) A Commission order granting a siting application will be deemed to include a grant of authority, subject to the provisions of law, to locate and construct the proposed HV transmission line within a corridor consisting of the area of 500 feet on each side of the centerline of the proposed HV transmission line unless the applicant requests and the Commission approves a corridor of a

different size. A proposed HV transmission line may not be constructed outside the corridor, except upon petition to and approval by the Commission.

52 Pa. Code § 57.76 (emphasis added). *See also, In re: Application of Trans-Allegheny Interstate Line Co.*, Docket No. A-110172 (Opinion and Order entered December 12, 2008) (*TrAILCo*).⁵

The four prongs in Section 57.76 provide the structure for the Commission's evaluation. In determining whether the Company has satisfied the four prongs, the Commission may consider evidence enumerated in another regulation, Section 57.75. This section provides, in relevant part:

§ 57.75. Hearing and notice.

* * *

(e) At hearings held under this section, the Commission will accept evidence upon, and in its determination of the application it will consider, *inter alia*, the following matters:

(1) The present and future necessity of the proposed HV line in furnishing service to the public.

(2) The safety of the proposed HV line.

(3) The impact and the efforts which have been and will be made to minimize the impact, if any, of the proposed HV line upon the following:

- (i) Land use.
- (ii) Soil and sedimentation.
- (iii) Plant and wildlife habitats.
- (iv) Terrain.
- (v) Hydrology.
- (vi) Landscape.

⁵ The *TrAILCo* case was determined to be driven by economics and not reliability, where the costs would outweigh any benefits which might be achieved. The Commission found that the potential costs of greenhouse emissions, DSM, and energy efficiency alternatives and whether the proposal was built to facilitate west-to-east transfers of generation were appropriate factors to be weighed. *Id.* at 29.

- (vii) Archeologic areas.
- (viii) Geologic areas.
- (ix) Historic areas.
- (x) Scenic areas.
- (xi) Wilderness areas.
- (xii) Scenic rivers.

- (4) The availability of reasonable alternative routes.

52 Pa. Code § 57.75(e).

This regulation enumerates the information which is considered to be relevant in evaluating the standard set forth in 52 Pa. § 57.76(a). In addition, case law has evaluated this standard and holds that, when a project will affect the environment:

The Commission is constitutionally obligated to evaluate whether a proposal to locate and construct high voltage transmission lines ensures the protection of the environment whenever the issue of damage to the environment is raised. *Pa. Const of 1968, Art. I § 27*. This requirement is satisfied when the Commission is able to determine that all applicable statutes and regulations relevant to the protection of the environment have been complied with, that a reasonable effort has been made to reduce the impact on the environment to a minimum, and that the environmental harm is clearly outweighed by the benefits to be derived from the facilities to be constructed. *Payne v. Kassab*, 312 A.2d 86 (Pa. Cmwlth. 1973), *aff'd*, 323 A.2d 407 (Pa. Cmwlth. 1974), and *aff'd*, 468 Pa. 226, 361 A.2d 263 (1976).

Application of PPL Elec. Utils. Corp. filed Pursuant to 52 Pa.Code Chapter 47, Subchapter G, for Approval of the Siting and Constr. of the N. Lancaster Honey Brook #1 & #2 138/69 kV Transmission Lines in Lancaster Cnty., Pa., Docket No. A-2014-2430565 (R.D. dated Feb. 27, 2015 at 42; Final Order entered April 23, 2015, adopting RD).

The Company argues that it has satisfied the regulatory and statutory requirements for the Applications. Whereas, OCA, STFC and Franklin County argue that key elements of those regulatory requirements are unfulfilled, and therefore, the Applications cannot be granted. This Recommended Decision reviews the evidence as it relates to the required four-pronged test in 52 Pa. Code § 57.76(a), above. As the regulation states, the first element to be

established is “need,” 52 Pa. Code § 57.76(a)(1), specifically the “present and future necessity of the proposed HV line in furnishing service to the public.” 52 Pa. Code § 57.75(e)(1). If need is not proven, then no further analysis need be done and the application can be denied and dismissed.

3. Standards for Eminent Domain

There is a dispute regarding the appropriate standard for the exercise of eminent domain because some of the properties to be condemned are subject to conservation easements. Franklin County argues that this instant proceeding should be stayed and Transource should be directed to seek approval from the Court of Common Pleas of Franklin County – Orphans Court Division and Court of Common Pleas of York County – Orphans Court Division regarding its plans to condemn certain lands subject to conservation easements pursuant to Act 45. Under Act 45, the orphans’ court must deny condemnation of a land subject to a conservation easement *unless there is no reasonable and prudent alternative*. 26 Pa.C.S.A. § 208(d) (emphasis added).

Franklin County argues that it was legal error for the ALJs not to stay the case for the orphans’ courts to make a determination as to whether Transource was required to obtain prior approval of the condemnation of land subject to conservation easements under Act 45, and if so, whether there was no reasonable and prudent alternative in order to effectuate the purpose of Act 45. Franklin County argues that while the exemptions in section 208(a) of Act 45 may be to prevent repetitive review of the same condemnation by multiple regulatory agencies, the condemnation must be reviewed using the standard set forth in Act 45 to ensure that there is no reasonable and prudent alternative to the condemnation of these protected lands. *See In re Condemnation of Springboro Area Water Auth. of Prop. of Gillette*, 898 A.2d 6, 11 (Pa. Cmwlth. 2006).

Before Franklin County intervened in this proceeding, STFC and Citizens argued the same and consideration was given to staying these proceedings for a finding of the ALCAB and local government bodies regarding the proposed routes in York and Franklin Counties. No stay was issued because although the Commission has not yet determined whether there is a need

for the project, the Commission did issue a certificate of public convenience to Transource, granting it public utility status, and if the Commission deems that the project is necessary and that there is a need, then Transource likely will circumvent the Orphans Court and ALCAB as there is an exception for public utility facilities. On June 24, 2018, Act 45 of 2018 (“Act 45”) was signed into law. Act 45 amends Title 26 (Eminent Domain) of the Pennsylvania Consolidated Statutes. Section 208 provides for eminent domain of land subject to conservation easement.

With the 2018 amendment, Act 45 provides in pertinent part:

§ 208. Eminent domain of land subject to conservation easement

(a) Approval required. Except as provided in subsection (g), no political subdivision, authority, public utility or other body having or exercising powers of eminent domain shall condemn any land subject to a conservation easement for any purpose, unless prior approval has been obtained from the orphans’ court of the county in which the land is located. The condemnation approval specified by this subsection shall not be required for an underground public utility facility that does not permanently impact the open space benefits protected by the conservation easement. The condemnation approval specified by this subsection shall not be required for any public utility facility or other project that is subject to approval by a federal agency, the necessity for the proprietary and environmental effects of which has been reviewed and ratified or approved by the Pennsylvania Public Utility Commission or the Federal Energy Regulatory Commission, regardless of whether the right to establish and maintain such underground or other public utility facility is obtained by condemnation or by agreement with the owner.

(b) Determination of blight. The exercise of eminent domain powers based on a condition of land subject to a conservation easement shall not be authorized under section 205 (relating to blight) unless the orphans’ court determines the exercise is necessary to protect the health and safety of the community.

(c) Notice. Any condemnor wishing to condemn property, the approval for which is required under this section, shall at least 30 days prior to taking such action, notify the orphans’ court that the action is contemplated.

(d) Review. The orphans' court shall review the proposed condemnation and approve the proposed condemnation only if the court determines there is no reasonable and prudent alternative to the utilization of the land subject to a conservation easement for the project.

(e) Findings and decisions. The orphans' court shall render findings and decision of the court's review under subsection (d) and shall report the findings and decisions to the proposed condemnor.

(f) Injunctions. The orphans' court may request the Attorney General to bring an action to enjoin a condemnor from violating any provision of this section."

26 Pa. C.S. §§ 208(a)–(f)(emphasis added).

Although portions of the land encompassed by the pending Condemnation Applications filed by Transource are agricultural and subject to conservation easements, Act 45 specifically excludes "public utility facilities" from the required approval. I can see where there might be a dispute as the utility was granted a certificate of public convenience before a need for the proposed transmission service project was determined by the Commission and because Transource does not currently have any facilities or operations in the State of Pennsylvania. However, I am not persuaded to recommend a stay of the instant proceedings now pending an outcome in the Orphan's Courts of York and/or Franklin Counties. My interpretation of Act 45 is that the proposed IEC Project falls within the meaning of a "public utility facility" as it is subject to review by the Commission.

Therefore, the approval required under Act 45 does not apply to the Siting Applications and Condemnation Applications filed by Transource. Act 45's exclusion of public utility facilities from the required approval mirrors the exclusion for public utility facilities in the Agricultural Area Security Law. See 3 P.S. § 913(b). *See, e.g., In re Condemnation of Springboro Area Water Auth.*, 898 A.2d 6 (Pa. Cmwlth. 2006). Therefore ALJ Calvelli and I did not stay the instant proceedings or direct Transource to seek approval from any orphan's courts prior to hearings being held in this matter.

I agree with Transource that Section 1511 of the Business Corporation Law of 1988 (BCL) applies to the instant case. Section 1511 grants public utility corporations, such as

Transource, the power to take and condemn property for the purpose of providing electricity to the public. See 15 Pa. C.S. § 1511(a)(3). I agree that the scope of the Commission’s review is pursuant to Section 1511, a provision of the Business Corporation Law, 15 Pa. C.S. § 1511(c), which applies to public utility corporations. Transource must show that the exercise of eminent domain is “necessary or proper for the service, accommodation, convenience or safety of the public” to support the taking. If such takings are necessary to provide electrical service to members of the public who would otherwise be unserved by public electric utilities, they are for a public purpose. *Condemnation by Valley Rural Elec. Coop.*, 982 A.2d 566 (Pa.Cmwlth. 2009).

The certificate of public convenience Transource holds is narrowly tailored for one specific project and the Commission expressly declined to predetermine that public need existed for additional electric transmission services in Franklin and York Counties. Further, the Commission made no determination of need for the IEC Project. Although the Commission approved a settlement and granted a certificate of public convenience, which generally requires a finding of public need for additional service within a service territory, the Commission specifically removed language from the Initial Decision to avoid any “predetermination of need.” See *Application of Transource Pennsylvania LLC*, Docket No. A-2017-2587821 (Opinion and Order entered January 23, 2018).

Additionally, the Commission made no determination regarding the siting of the transmission lines and did not consider the environmental effects or impact on conserved agricultural land, property values, etc. along these proposed routes. The instant proceeding developed such a record regarding need for transmission service in the areas most affected by the building of proposed transmission lines as well as within the regional transmission organization’s service territory. The costs and benefits to the IEC project as well as alternative feasible routes, environmental studies⁶, evidence regarding impact on preserved agricultural property, other properties, businesses, schools, local government, and individuals are considered.

⁶ Environmental studies include surveying for bog turtles, a federally threatened species in Pennsylvania.

Before a public utility may seek to exercise the authority to condemn property for an aerial transmission line, it must obtain approval from the Commission pursuant to Section 1511(c), which provides, in pertinent part, as follows:

(c) Public Utility Commission approval.--The powers conferred by subsection (a) [for the running of aerial electric facilities] may be exercised to condemn property ... only after the Pennsylvania Public Utility Commission, upon application of the public utility corporation, has found and determined ... that the service to be furnished by the corporation through the exercise of those powers is necessary or proper for the service, accommodation, convenience or safety of the public. . . .

15 Pa. C.S. § 1511(c).⁷ Thus, on an application for condemnation, the Commission must determine whether the proposed service, *i.e.*, the transmission or distribution of electricity to or for the public that will be provided to the public if the subject property is condemned, is necessary or proper for the service, accommodation, convenience, or safety of the public.

The Commonwealth Court has explained that the Commission's only role under 15 Pa.C.S. § 1511 is to consider if the project is necessary or proper for the benefit of the public, and that the Commission is expressly barred from considering the power of the utility to condemn. *SEPTA v. Pa. Pub. Util. Comm'n*, 991 A.2d 1021, 1023 (Pa. Cmwlth. 2010). Therefore, the Commission does not determine whether to grant a condemnation application on the basis of the legal authority, scope, validity, damages, or the willingness of a condemnee to negotiate.

⁷ The BCL restricts the authority of a public utility to take and condemn property for the purpose of providing electricity to the public by providing that the public utility's condemnation authority shall not be used to condemn:

(i) Any dwelling house or, except in the case of any condemnation for petroleum or petroleum products transportation lines, any part of the reasonable curtilage of a dwelling house within 100 meters therefrom and not within the limits of any street, highway, water or other public way or place.

(ii) Any place of public worship or burying ground.

15 Pa.C.S. § 1511(b).

The Pennsylvania Appellate Courts have interpreted Section 1511 as requiring a condemning utility to show that the proposed transmission line is necessary or proper and that it has not acted wantonly, capriciously, or arbitrarily in selecting the proposed ROW. *Dep't of Env'tl. Res. v. Pa. Pub. Util. Comm'n*, 335 A.2d 860 (Pa. Cmwlth. 1975), *aff'd*, 473 Pa. 378, 374 A.2d 693 (1977); *Dickson v. Pub. Serv. Comm'n*, 89 Pa. Super. 126 (1926). The selection of the ROW is a matter for the public utility in the first instance and, while the route selection must be reasonable, it need not be the "best alternative" in terms of reducing or eliminating inconvenience to particular landowners. *Stone v. Pa. Pub. Util. Comm'n*, 162 A.2d 18 (Pa. Super. 1960). For example, in *Paxtowne v. Pa. Pub. Util. Comm'n*, 398 A.2d 254, 256 (Pa. Cmwlth. 1979), the route selected by the public utility was affirmed. In order to establish that the selected route was reasonable in comparison with two alternative routes, the public utility established the following:

[T]hat the proposed route was selected over alternative routes because the topography of petitioner's property was superior with regard to land use, environmental and engineering considerations; and that the selection of other routes would be more costly in acquiring rights-of-way from additional property owners.

Id. at 256. The Court went on to hold that, although the proposed route clearly impacted the petitioner's property, when balanced against the utility's evidence, there was no indication that the utility's selection of the proposed route was done wantonly, capriciously, or arbitrarily.

As stated before in the Fourth Prehearing Order in this case, I am not inclined to recommend staying the procedural schedule in this case pending Transource obtaining any pre-approval from the Orphans' Courts or the ALCAB.

A public utility may condemn property to provide electricity under Section 1511 of the BCL. PPL has filed its five remaining Condemnation Applications, under this section:

(a) General rule. -- A public utility corporation shall ... have the right to take, occupy and condemn property for one or more of

the following principal purposes and ancillary purposes reasonably necessary or appropriate for the accomplishment of the principal purposes:

* * * *

(3) The ... transmission ... distribution or furnishing of ... electricity ... to or for the public.

15 Pa.C.S. § 1511(a)(3).

Section 1511(b) of the BCL restricts the authority of a public utility to take and condemn property for the purpose of providing electricity to the public, stating, in pertinent part, as follows:

The powers conferred by subsection (a) shall not be exercised:

(1) To condemn for the purpose of constructing ... aerial electric transmission ... lines:

(i) Any dwelling house or, except in the case of any condemnation for petroleum or petroleum products transportation lines, any part of the reasonable curtilage of a dwelling house within 100 meters therefrom and not within the limits of any street, highway, water or other public way or place.

(ii) Any place of public worship or burying ground.

15 Pa.C.S. § 1511(b).

Before a public utility may seek to exercise its statutorily granted authority to condemn property for the purposes of constructing aerial transmission or distribution facilities, it must obtain a finding from the Commission that the taking is “necessary”:

(c) The powers conferred by subsection (a) [for the running of aerial electric facilities] may be exercised to condemn property ... only after the Pennsylvania Utility Public Commission, upon application of the public utility corporation, has found and determined ... that the service to be furnished by the corporation through the exercise of those powers is necessary for the service, accommodation, convenience or safety of the public.

15 Pa.C.S. § 1511(c). Where the record establishes that the public utility's route selection was reasonable, considering all the factors involved in the selection of a line, the degree of inconvenience to a landowner does not constitute grounds for withholding the exercise of the power to condemn the easement. *Paxtowne v. Pa. Pub. Util. Comm'n*, 398 A.2d 254, 256 (Pa. Cmwlth. 1979).

4. Standards for Shelter/Building Petitions

There are no disagreements regarding the standard, Section 619 of the Municipalities Planning Code (MPC),⁸ 53 P.S. § 10619, which provides the standard for approval of the siting of a public utility "building," such as a substation control equipment building. Section 619 of the MPC provides as follows:

This article shall not apply to any existing or proposed building, or extension thereof, used or to be used by a public utility corporation, if, upon petition of the corporation, the Pennsylvania Public Utility Commission shall, after a public hearing, decide that the present or proposed situation of the building in question is reasonably necessary for the convenience or welfare of the public. It shall be the responsibility of the Pennsylvania Public Utility Commission to ensure that both the corporation and the municipality in which the building or proposed building is located have notice of the hearing and are granted an opportunity to appear, present witnesses, cross-examine witnesses presented by other parties and otherwise exercise the rights of a party to the proceedings.

53 P.S. § 10619. Thus, a public utility building that is reasonably necessary for the convenience or welfare of the public is exempt from local zoning ordinance provisions under the MPC. *Del-AWARE Unlimited, Inc. v. Pa. Pub. Util. Comm'n*, 513 A.2d 593, 596 (Pa. Cmwlth. 1986). Further, Section 619 of the MPC does not require a utility to prove that the site it has selected is absolutely necessary or that it is the best possible site. *O'Connor v. Pa. Pub. Util. Comm'n*, 582 A.2d 427 (Pa. Cmwlth. 1990). If the evidence of record demonstrates that the site chosen is

⁸ PPL Electric MB footnote 11: Act of July 31, 1968, P.L. 805, *as amended*, 53 P.S. § 10619.

reasonably necessary for the convenience or welfare of the public, the Commission should grant the necessary findings under Section 619 of the MPC. *Id.* at 433.

The Commission's policy statement regarding local land-use plans and ordinances provides, in pertinent part, as follows:

To further the State's goal of making State agency actions consistent with sound land-use planning ... the Commission will consider the impact of its decisions upon local comprehensive plans and zoning ordinances. This will include reviewing applications for:

- (1) Certificates of public convenience.
- (2) Siting electric transmission lines.
- (3) Siting a public utility "building" under section 619 of the Municipalities Planning code (53 P.S. § 10619).
- (4) Other Commission decision.

52 Pa. Code § 69.1101.

B. Need for the Proposed Transmission Line

1. Transource's Position

Transource argues that while the Federal Energy Regulatory Commission (FERC) has jurisdiction over transmission planning, the Commission has jurisdiction over the siting of the HV transmission lines. 52 Pa. Code § 57.71. FERC Order 1000 is not intended to preempt or conflict with Pennsylvania's authority over siting, permitting and construction of transmission facilities. FERC Order 1000, ¶ 107, FERC Order 1000-A, ¶ 186.

Transource argues that there is need for Project 9A as amended because PJM used a PROMOD software model that showed inefficiency in the wholesale electric market. Specifically, there was congestion in the AP South and Related Constraints in the 2014/2015

Long-Term Window. Transource St. No. 3, p. 7. According to Transource, economic transmission cost constraints across the AP South interface totaled approximately \$800 million from 2012 through 2016. Transource Ex. No. TH-RR, p. 2. In addition, PJM models continued to identify significant congestion on the AP South and related constraints in long-term simulation results. Transource St. No. 8-R, p. 7.

Transource argues that because PJM solicited competitive proposals in the 2014/2015 Long-Term Window to address these congestion issues and selected Transource's Project 9A over 40 other market efficiency proposals, as it had the highest benefit-to-cost ratio, need for the project has been proven. Transource St. No. 8-R, p. 7, 12.

Transource offered the testimony of its witness, Mr. Weber, to refute the testimony of Franklin County's witness McGavern, who testified the cost/benefit analysis was flawed due to the reliance on outdated data. Mr. Weber testified that costs estimates are reviewed quarterly and that the latest comprehensive cost update was provided to PJM in April 2020. Transource St. No. 1AA-RJ, p. 3. The costs in this update were consistent with the costs used by PJM to calculate the benefit to cost ratio for Settlement 9A. In addition, Transource has confirmed over 60% of its costs for Settlement 9A through a combination of actual expenditures, binding bids and contracts with vendors. Transource St. No. 1AA-RJ, p. 4.

Further, Transource argues that the Project 9A was re-evaluated by PJM multiple times and has passed the benefit-to-cost ratio every time. The chart below identifies all the times that Project 9A was evaluated and the resulting benefit- to-cost ratio.

| IEC Evaluation | Benefit/Cost Ratio |
|---|---------------------------|
| Original August 11, 2016-Board Presentation | 2.48 |
| Re-Evaluation No. 1 September 14, 2017-TEAC Presentation | 1.3 |
| Re-Evaluation No. 2 February 8, 2018 – TEAC Presentation | 1.32 |
| Re-Evaluation No. 3 September 13, 2018 – TEAC Presentation | 1.42 |

| | |
|---|------|
| Ratio Update October 16, 2018 | 1.4 |
| Re-Evaluation No. 4 February 2019 | 2.17 |
| Re-Evaluation No. 5 October 17, 2019 | 2.1 |

See Transource St. No. 8-R, p. 14; Transource St. No. 8-RJ, p. 3; Transource Ex. No. TJH-AA2, p. 7.

The benefit-cost ratio for Project 9A has always exceeded 1.25. PJM witness Horger provided the following results in his Supplemental Testimony in support of the Amended Application:

| Updated Mid-Cycle Base Case | NPV \$(M) BGE/PPL Validated Costs | NPV \$(M) Including 25% Cost Adder |
|--|---|--|
| Total Cost for Project 9A as modified by Settlement | \$478.48 | \$496.17 |
| Benefit-to-Cost Ratio for Project 9A as modified by Settlement | 1.66 | 1.60 |
| Sensitivity Case – 1% Load Decrease (Peak and Energy) | Present \$ (M) BGE/PPL Validated Costs | Present \$ (M) Including 25% Cost Adder |
| Total Cost for Project 9A as modified by Settlement | \$478.48 | \$496.17 |
| Benefit-to-Cost Ratio for Project 9A as modified by Settlement | 1.52 | 1.46 |

Transource St. No. AA-3, p. 4.

Transource contends that Settlement 9A has a benefit-cost ratio of 1.66 based upon estimated costs and 1.6 with a 25% cost adder. In addition, Settlement 9A has a benefit-to-cost ratio of 1.52 with a 1% load decrease and a benefit-cost ratio of 1.46 with a 1% load decrease and 25% cost adder.

In support of its position, Transource also offered the testimony of witness Herling who testified that congestion and reliability issues are related:

[W]hile reliability is not a driver of the Project, PJM has identified reliability criteria violations that would result and would have to be resolved if the Project is not constructed. This is not particularly surprising. History has shown that RTEP projects justified on the basis of reliability have also shown economic benefit by mitigating congestion.

Transource St. No. 7-R, p. 21, lines 3-7.

Transource argues that Settlement 9A provides significant reliability benefit to the PJM transmission system, including Pennsylvania and Maryland. The Project resolves five significant reliability violations that were identified by PJM in an RTEP 2023 study year case generator deliverability analysis. These five reliability violations are listed below:

| Facility Name | Limiting Equipment | Loading |
|--|---------------------------|----------------|
| Three Mile Island 500/230 kV Transformer | Transformer | 117% |
| Peach Bottom-Conastone 500 kV Line | Conductor | 109% |
| Hunterstown-Lincoln 115 kV Line | Conductor | 123% |
| Lincoln Tap-Lincoln 115 kV Line | Conductor | 120% |
| Lincoln-Straban 115 kV Line | Conductor | 104% |

Transource St. No. 7-R, p. 21.

Mr. Herling testified that the Peach Bottom-Conastone 500kV Line is an N-0 violation. The other violations are N-1 violations. Transource St. No. 7-RJ-SUPP, p. 2. An N-0 violation is a violation that is projected to occur under normal operating conditions with no contingencies. An “N-1” or “N MINUS 1” violation is an overload that occurs following a single contingency, i.e., when one system element is taken out of service. Transource St. No. 7-RJ-SUPP, p. 2.

Transource argues that if Settlement 9A is not constructed, PJM would be required to seek alternative solutions to address the reliability violations. Mr. Herling testified that NERC and PJM Planning criteria require PJM to develop solutions to all identified reliability criteria violations to avoid “reliability consequences.” Transource St. No. 7-R, pp. 24-25. Mr. Herling further explained that solutions for violations on 500kV facilities are not typically small in scope or cost. Transource St. No. 7-R, p. 25. The identified reliability

violations that will be resolved by Settlement 9A are identified to occur in 2023. Transource St. No. 7-R, p. 21. Transource argues that if Settlement 9A is not constructed, there is not sufficient time to address the reliability violations by 2023.

In support of its position, Transource offered the testimony of Mr. Herling who testified that any proposed solutions would need to go through the RTEP process and be approved by PJM. Tr. 2972. In addition, they would have to be approved by their respective state commissions. Any approved project would not likely be constructed and placed into service until 2025 or 2026, assuming no substantial regulatory delay. Tr. 2977. This is two to three years after the identified reliability violations in 2023, and too late to resolve them.

Mr. Herling testified as follows:

Operational procedures include a variety of things. Obviously that would include all manner of re-dispatch. It would include a series of emergency procedures where we could invoke different types of emergency load reductions, even including the possibility of having to institute load shedding in parts of the system that are affected by the constraint.

So if you have constraints on a 500 kV line, you could have a potentially broad area where we might have to reduce customer load in order to manage that constraint.

If it's a 115 kV facility, we would probably identify a much more targeted local area where we would have to shed customer load to manage that constraint.

Tr. 2970, lines 2-14.

In addition to the market congestion and reliability benefits described above, Transource contends that Settlement 9A provides significant additional benefits to Pennsylvania including: 1) providing Pennsylvania generators with greater access to markets; 2) mitigation of extreme weather/load events; 3) increased import/export capability between capacity zones in PJM; 4) enhanced competition in the PJM market; 5) additional jobs; 6) increased tax revenues; and 7) increased economic activity. Transource St. No. 10-R, Redacted, pp. 8, 25-26.

Transource witness Chang provided an estimate of the jobs supported, economic activity supported and tax revenues generated by the IEC Project. Transource St. No. 10-R, Redacted, pp. 26-27.

Transource argues that being part of PJM and participating in regional planning provides substantial benefits to the Commonwealth of Pennsylvania. Regional transmission planning across the PJM zones reduces the need for additional generation by up to \$3.78 billion annually. The regional transmission system helps to maintain reliable service across the region during periods of extreme weather and when there is sudden loss of large generation. Interstate transmission lines allow the lowest-cost power to reach the greatest number of people. Transource witness Horger testified as follows:

PJM's grid has electricity reserve margins that ensures PJM can maintain reliability (i.e. keep the lights on) under extreme conditions. Project 9A ensures the grid maintains an adequate level of reserves by providing access to new efficient generation resources in PJM and Pennsylvania that are currently restricted to certain areas of the network because of transmission limitations:

...

The area served by PJM accounts for 21 percent of the U.S. Gross Domestic Product. Thus affordable wholesale electricity prices have an outsized impact on the economic productivity of our region and the nation. States such as Pennsylvania that have elected to rely on market forces to stimulate the entry and exit of generators have cultivated some of the most attractive environments for new resource development and investment in the U.S. For example, the top three states in PJM with generation projects under consideration are Ohio (20,000+ MW), Pennsylvania (18,000+ MW) and the PJM portion of northern Illinois (15,000+ MW). This is no accident. Policies have enabled these states to nurture a vibrant market for generator development that attracts billions of dollars of private investment – more than \$17 billion in Ohio and Pennsylvania alone. These investments in new generation are further incited with the construction of the Transource project;

...

New technologies tend to improve efficiency, and PJM's current generation mix is 30 percent less carbon-intensive than 10 years ago. On average, producing one megawatt of power in PJM emits

13 percent less carbon dioxide than it did 10 years ago. Emissions reductions are largely the result of the competitive markets encouraging the free entry of new, competing technologies. Removal of transmission bottlenecks with transmission upgrades, such as that of Project 9A provides access to more of this technology.

Transource St. No. 8-R, pp. 18 – 19.

Former Chairman/Commissioner James Cawley also testified for Transource as follows:

Localized planning to ensure only safe and reliable service in Pennsylvania would significantly increase transmission and generation costs, as well as work to erode or negate the significant benefits and reasons that utilities within Pennsylvania expected when they ceded local grid and market control to PJM with the expectation of higher benefits through the operation of a regional market

Transource St. No. 9-RJ, p. 9, lines 17 – 22.

Transource contends that PJM's benefit to cost methodology aligns payment of costs with zones that benefit. Mr. Herling testified that it is appropriate that the regions that benefit from the deployment of market efficiency projects are the regions paying for the upgrades. Pursuant to PJM's cost allocation methodology, if a Pennsylvania zone does not receive congestion benefits from the Project, it will not pay for the Project.

Transource argues that in resolving congestion issues, it is not appropriate to consider higher costs that would result in unconstrained regions because the costs in unconstrained regions are artificially low due to the congestion constraints. Transource offered the testimony of former Chairman of the Commission, James Cawley on this issue, who testified as follows:

[N]o customer or group of customers is entitled to lower cost generation created by congestion constraints. When there is a constraint or bottleneck, the wholesale market is not functioning as intended, which results in a disparity of prices in front of and behind the bottleneck/constraint. Customers in front of the

bottleneck are paying artificially low prices and customers behind the bottleneck are paying artificially high prices. The so-called “benefits” of congestion, i.e., the fact that customers in front of the constraint are paying lower than competitive prices, are not benefits at all. They are the inefficient and uneconomic consequences of the bottleneck, which are being paid for through higher prices by those customers taking power behind the constraint. The purpose of the Project is to reduce this congestion and provide a more open and efficient market and levelized and competitive prices.

Transource St. No. 9-R, p. 6, lines 10-20.

Transource argues that other parties’ proposals to include higher prices in the unconstrained area in the benefit-to-cost ratio is unreasonable because it perpetrates discriminatory rates (presumably in the unconstrained region of Pennsylvania).

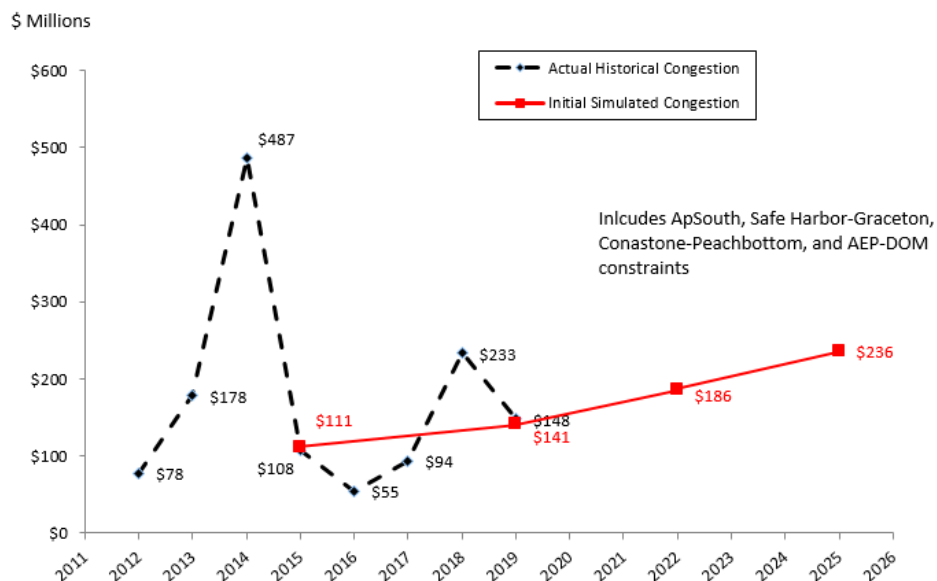
Transource does not deny that congestion in the AP South has fluctuated and decreased; however, it argues that congestion shifts among interfaces, and there are multiple constraints in the area that are mitigated by Settlement 9A. Mr. Horger explained this issue in his testimony, stating as follows:

The congestion on the AP South Interface is one of the, but not the only, area of congestion alleviated by the Project 9A inclusive of the IEC project because congestion often shifts and there are multiple constraints in the same area that are impacted by the upgrade provided by the Project. PJM’s 2014/2015 Long-Term Proposal Window sought proposals for many congested facilities as identified in PJM’s simulations. Although the AP South Interface was the major congestion point that Project 9A inclusive of the IEC Project resolved, the Project also relieves congestion in other areas. For example, in PJM’s operations, PJM typically does not experience congestion on the AP South, AEP-Dominion, Conastone – Peach Bottom, and Graceton-Safe Harbor interfaces at the same time; when one of these areas is constrained the others typically would not be, but all areas are persistently constrained. One of the distinct advantages of Project 9A inclusive of the IEC Project that also speaks to the Project’s benefits is that the Project does not just mitigate congestion in one interface—it mitigates the problem in all of these areas. Indeed, in PJM’s evaluations and summary of Project 9A inclusive of the IEC Project, PJM

identified the Project's impact in multiple areas as one of the Project's advantages.

Transource St. No. 3AA-RJ, p. 8, lines 148-162.

Additionally, Transource offers the testimony of Mr. Horger, who testified that the actual level of congestion on the AP South and related interfaces for 2019 is consistent with the congestion forecasted by PJM in 2015. Transource offered the below chart as evidence to support this opinion.



Transource St. No. 3AA-RJ, p. 11.

Additionally, Transource argues that recent load reductions since March 2020 due to reduced energy consumption because of COVID-19 pandemic restrictions do not reduce the need for Settlement Project 9A. The load reductions due to COVID-19 are temporary and not long term. PJM's most recent forecast shows a minimal peak load reduction of 2/10ths or 3/10ths of a percent in 2023 and by 2025, no reduction at all. Tr. 2956. Market efficiency planning is conducted over a 15-year window. Tr. 2937. The PJM system often experiences fluctuations in load. Tr. 2938. A temporary reduction in load does not affect long-term transmission planning. The recent reductions in load due to COVID-19 do not affect the need for Settlement Project 9A.

Transource argues that there is no dispute in this proceeding that Project 9A and Settlement 9A solve NERC reliability violations. Solving these reliability violations is a significant additional benefit of Project 9A. Mr. Herling summarized his conclusion as follows:

The reliability benefits fortify PJM's already well-grounded justification for its recommendation of the IEC Project as the more efficient, cost effective market efficiency project among the proposed solutions.

Transource St. No. 7-RJ-SUPP., p. 6, lines 6-8.

Transource argues that congestion and reliability issues are often related. There is no need to conduct a separate study or solicit other proposals to address the reliability violations that will be resolved by Project 9A or Settlement Project 9A.

2. OCA's, Franklin County's and STFC's Positions

OCA contends that whether or not regional congestion concerns meets the 'need' standard has not yet been answered by this Commission or appellate courts. In support of its position, Transource cites to the *TrAILCo* proceeding stating that, "the Commission determined that...the 'Commission has an obligation to enhance regional reliability and mitigate transmission constraints in order to *reduce congestion for ratepayers in Pennsylvania and adjacent jurisdictions.*'" Transource M.B. at 21 (emphasis in original).⁹

OCA contends that there is an important distinction, however, between *TrAILCo* and the instant proceeding. OCA does not dispute the benefits of regional transmission planning, but has taken issue with whether the benefits of this Project are sufficient to meet Pennsylvania standards. OCA argues there are several materially distinguishing factors between *Susquehanna-Roseland* and the instant proceeding. In *Susquehanna-Roseland*, the Commission approved a transmission project designed to resolve reliability violations, reduced congestion for

⁹ The Company also attempts to compare this proceeding to the *Susquehanna-Roseland* proceeding where the Commission recognized the benefits of regional transmission planning. Transource M.B. at 22-23; *see also Approval of the Siting and Constr. of the Pa. Portion of The Proposed Susquehanna-Roseland 500 kV Transmission Line in Portions of Lackawanna, Luzerne, Monroe, Pike and Wayne Cntys., Pa.*, Docket No. A-2009-2082652, 2010 Pa. PUC LEXIS 434 at *44 (Opinion and Order entered Feb. 12, 2010) (*Susquehanna-Roseland*).

Pennsylvania ratepayers, and incorporated the modernization of old transmission line avoiding significant expenditures to replace those facilities as a standalone project. *Id.*, at *64-68. The IEC Project, however, was not designed to resolve reliability concerns, but only addresses economic congestion, will increase wholesale power prices to Pennsylvanians by approximately \$400 million over a period of 15 years on a net basis, and only provides net benefits of \$32.5 million to the PJM region over that same period of time.

Additionally, OCA and STFC discussed at length the Commission's obligations under the Environmental Rights Amendment, as set forth in the Supreme Court of Pennsylvania's decision in *PEDF*. In rejecting the *Payne* test, the *PEDF* Court explained that Article I, Section 27 requires a constitutional analysis beyond the three-part test, and requires application of the trust jurisprudence. *PEDF*. OCA M.B. at 15-22, STFC M.B. at 4-11. To ensure that the Commission's constitutional obligations are met in this proceeding, the Company has a heavy burden to meet the constitutional requirements set forth in *PEDF*. Citing to *Del. Riverkeeper Network v. Sunoco Pipeline, L.P.*, 179 A.3d 670 (Pa. Cmwlth. 2017) (*Sunoco*). The Commission's exclusive authority to regulate the siting of utility infrastructure remains intact. The Commission, however, is bound by the constitutional obligations set forth in *PEDF* and must ensure that it meets those obligations. *Frederick v. Allegheny Twp. Zoning Hearing Bd.*, 196 A.3d 677, 694 (Pa. Cmwlth. 2018).

OCA and STFC assert that the *PEDF* decision imposes a heavy burden on the Company to satisfy the Commission's constitutional obligations. OCA M.B. at 21-22, STFC M.B. at 6-8. That is, the government must refrain from permitting the degradation of the right to clean air, pure water, and to the preservation of the natural, scenic, historic, and esthetic values of the environment and Pennsylvania's public natural resources where such degradation is unreasonable, does not further a legitimate state interest, or does not benefit the citizens of this Commonwealth. OCA M.B. at 18.

Franklin County argues that the authority for which Transource cites in support of its position that the need to address congestion alone is sufficient for a State Commission to find there is a need for an HV transmission line is misconstrued. Franklin County argues the

benefit/cost analysis is flawed as the cost estimates used to evaluate Project 9A are based upon outdated data from 2014. In support of its position, Franklin County offered testimony of its witness, Mr. McGavran, who suggested that the cost estimates used for Settlement 9A were from 2014. Franklin County St. No. 1, pp. 8, 10.

STFC argues Transource relies on a false equivalence to make the argument that the Commission should approve its application. The Commission's standards for approval of an application involve more than determining whether Transource complied with the FERC tariff and PJM process that ultimately selected the IEC Project. Further, the responsibility of providing alternative routes is upon the applicant, not the protestant. An applicant needs to meet the statutory standard to prove that it is entitled to the relief request.

STFC also argues that the Pennsylvania Supreme Court rejected the *Payne* test in *PEDF*. The *Payne* test is "ill-fitted" to the language of Article I, Section 27 and has "frustrate[ed] the development of a coherent environmental rights jurisprudence." *Id.* at 930 citing *Robinson Twp v. Commonwealth*, 83 A.3d at 964 (Pa. 2013). In rejecting the test, the *PEDF* Court explained that Article I, Section 27 requires a constitutional analysis beyond the three-part test, and requires application of the trust jurisprudence. Transource fails to acknowledge the impact of the Article I, Section 27's articulation of the people's rights and the government's duties.

Article I, Section 27 was unanimously adopted by the General Assembly in the 1969-1970 and the 1971-1972 legislative sessions, and was ratified by the citizens of Pennsylvania by a 4-to-1 margin on May 18, 1971. As the *PEDF* Court rightly noted, "the decision to affirm the people's environmental rights in a Declaration or Bill of Rights, alongside political rights, is relatively rare in American constitutional law. In addition to Pennsylvania, Montana and Rhode Island are the only other states of the Union to do so." *PEDF*, 161 A.3d at 918; *See* Pa. Const. art. I, § 27 (1971); Mt. Const. art. II, § 3 (1889); R.I. Const. art I, § 17 (1970).

STFC argues that the Environmental Rights Amendment articulates the people's rights and the government's duties:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

Pa. Const. art. I, § 27. This express statement of rights and obligations in the Environmental Rights Amendment is “with respect to the conservation and maintenance of our public natural resources.” *PEDF*, 161 A.3d at 916. *See also, Robinson Township* case.

Accordingly, experience led directly to the adoption of Art I, Section 27 and the Declaration of Rights, of the Pennsylvania Constitution. This unique placement of protection of the citizens' environmental rights on par with the most sacred rights of individuals in the state Constitution impacts “all branches and levels of government”. *PEDF* at 919.

STFC contends that Transource's citation to a 1960 Pennsylvania Superior Court case for support that public convenience and necessity considerations include a “regional element” is misplaced as the caselaw upon which Transource relies, *Stone v. Pa. Pub. Util. Comm'n*, 162 A.2d 18 (Pa. Super. 1960) and *Dunk v. Pa. Pub. Util. Comm'n*, 232 A.2d 231 (Pa. Super 1967), predates the adoption of the Environmental Rights Amendment.

STFC argues Transource's witness Cawley's “reciprocal altruism” opinion (Tr. at 2443) that states should be precluded from operating as “silos” at the wholesale level, is non-persuasive since Maryland banned hydraulic fracturing in 2017 – the same year that the Pennsylvania Supreme Court confirmed Art I, Section 27 jurisprudence in *PEDF*. *See MD Code, Environment § 14-107.1*. Maryland banned the industrial activity that Transource Witness Horger alleges will increase as a result of the proposed IEC Project, because of the removal of the “inefficiencies...which is the congestion.” Tr. at 2636.

STFC collaterally attacks the Commission's January 23, 2018 Opinion and Order granting a certificate of public convenience to Transource conferring upon it status as a public utility to: a) begin to furnish and supply electric transmission service to or for the public within a transmission service area from the new Rice Substation in Franklin County, Pennsylvania to the Pennsylvania/Maryland border for PJM Project 9A, baseline upgrade numbers b2743 and b2752; and b) begin to furnish and supply electric transmission service to or for the public within a transmission service area from the new Furnace Run Substation in York County Pennsylvania to the Pennsylvania/Maryland border for PJM Project 9A, baseline upgrade numbers b2743 and b2752.

STFC argues Transource was improperly relieved of the burden of proving the need for a certificate of public convenience (CPC) in the first step of the process. Transource filed its applications in December 2017, after it had reached a settlement agreement on the certification docket, Docket No. A-2017-2587821. The Commission's decision specifically noted that the Application "brings a new type of entity to the Commonwealth" and that the Commission is being asked to "certificate a company as a public utility as a necessary step prior to consideration of the siting and construction of the project this company was formed to carry out." Removing Transource's burden to demonstrate need for approval of the CPC shifts the burden from the applicant seeking approval of a new transmission line. The applicant utility bears the burden of proof in proving a need for the certificate of public convenience.

STFC argues that Transource amended one of its Applications (pertaining to York County), and the Applicant's CPC does not conform to the Amended Application. To allow siting applications after a certificate of public convenience is granted to operate in a very narrowly delineated service area is problematic for two reasons. First, it suggests that the adjudication is not a final order within the meaning of the Administrative Agency Law as the scope of the authority is limited to corridors yet to be in existence--*i.e.*, the substations and routes of the transmission lines are not yet approved by the Commission, much less built. Second, the Commission essentially retained jurisdiction to make this determination of need for the project; thus, the Commission's approval of the CPC is interlocutory because the Commission retained jurisdiction to reject the project. The question of need was specifically deferred in 2018 on

approval of the Order, and stricken from the original ALJ approval of the settlement (See December 21, 2017 Motion of Commissioner Sweet, at ¶ 2; striking portion of August 31, 2017 Approval at P. 14).

STFC contends that the CPC was issued for a specific project-need for the CPC was found by the ALJ to be only for the specific project as a prerequisite for the issuance of a CPC that was uncontested pursuant to settlement conditions, but the Commission removed the determination on the need for additional transmission service in York and Franklin Counties from its final opinion and order.

STFC argues that Transource relies on the very same certificate for authority that there is a need for it to have the power of eminent domain. Project 9A has not been approved by the Commission, and it is the only service that Transource is authorized to furnish. As such, Transource has an ineffective CPC because it refers to a project that has not yet been approved by the Commission.

STFC argues that the sequenced approach to approval in this novel instance has the effect of improperly shifting the burden to the intervenors or the Commission to show that there are deficiencies in the application when nothing in the Code or the regulations in 52 Pa Code authorizes the issuance of a certificate of public convenience without sufficient supporting information on the merits of the proposed application.

In January of 2019, a new Application was filed for a Reconfigured 9A project. The CPC that Transource has is issued specifically for “PJM Project 9A, baseline upgrade numbers b2743 and b2752, and for baseline upgrade number b2743 and b2752”. The Amended Application demonstrates that PJM has now applied different numbers to the Project., b2743.2-8 and b2752.1-9. (*See* TJH-AA2). Transource is asking the Commission to approve the first market efficiency project under FERC Order 1000. Transource’s current situation is unusual. Transource holds a limited certificate of public convenience that does not allow it to do anything other than file an application because Transource may only provide service on one particular project, for which the Commission has yet to determine need.

STFC argues Transource must show it has received the required permits from the Pennsylvania Department of Environment Protection (PaDEP) at a minimum that the project can be completed. Instead, Transource contends that it will meet a number of regulatory requirements, if the Commission approves the application. However, there is no evidence that any of these requirements have been met. The litany includes U.S. Fish and Wildlife Service (USFWS) surveys for bald eagles, PFBC coordination regarding native wild trout population and Stormwater controls, wetland delineation and approval from United States Army Corps Of Engineers (USACOE), and PaDEP, as well as Chapter 102 E & S permitting from PaDEP.

3. Disposition

I agree with OCA, STFC, and Franklin County that the ‘need’ element pursuant to 52 Pa. Code § 57.76 required to approve the applications has not been shown by a preponderance of the evidence. Accepting as true Transource’s assertion that PJM saw a need in 2015-2016 to remove a congestion constraint in the AP South Interface, this assertion alone does not satisfy the ‘need’ requirement for additional transmission service in York and Franklin Counties within the meaning of the Commission’s siting regulations. The Commission owes the public a duty to analyze the project pursuant to Commission regulations, relevant caselaw and the Public Utility Code. Even though PJM’s proceedings are open to stakeholders prior to the project being selected, this is not the same as due process before this Commission in a siting, eminent domain, or a certificate of public convenience application proceeding.

The scope of inquiry for determining ‘need’ is broad and includes consideration of many factors. *TrAILCo*, 2008 Pa. PUC LEXIS 60 at *128-129 (Rec. Dec. entered Aug. 15, 2008) (*TrAILCo Recommended Decision*). More specifically, the “inquiry to determine whether a public need for a transmission project exists depends on the specific facts presented regarding each project and upon the future impacts or consequences within a broad context.” *TrAILCo Recommended Decision* at *127, *affirmed TrAILCo Order* at *48.

While the proposed facilities in *TrAILCo* provided some congestion benefits to Pennsylvania, the 502 Pennsylvania Junction facilities were selected by PJM to primarily address reliability violations on the Pruntytown-Mt. Storm 500 kV line and the Mt. Storm-Doubs 500 kV line, not congestion concerns as in Project 9A.¹⁰ *TrAILCo Recommended Decision* at *14-15. In the subsequent appeal, the Commonwealth Court of Pennsylvania declined to answer whether congestion benefits on their own are sufficient to meet the ‘need’ standard, noting that the Commission approved the 502 Pennsylvania Junction facilities to address reliability concerns. *TrAIL Appeal*, 995 A.2d at 486-87. Accordingly, neither the Commission, nor appellate courts, have addressed this issue. This is a case of first impression.

The Electricity Generation Customer Choice and Competition Act (Act) was enacted by the General Assembly to restructure the electric utility industry but not deregulate it altogether. Tr. at 2429-30; *see also* 66 Pa. C.S. § 2804. As part of that Act, the General Assembly required the Commission to “work with the Federal Government, and other states in the region...and with the independent system operator...to ensure the continued provision of adequate, safe, and reliable electric service to the citizens and business of this Commonwealth.” 66 Pa. C.S. § 2805(a) (emphasis added). The statute, however, does not mention the term ‘congestion,’ and also declares that the primary goal of such regional coordination is to ensure adequate, safe, and reliable electric service to the citizens and businesses of Pennsylvania. *Id.* The Commonwealth Court’s decision in the *TrAIL Appeal* regarding regional concerns and Section 2805 of the Public Utility Code rests solely on the need to ensure a reliable regional transmission system:

¹⁰ Economic and environmental impacts surrounding the 502 Pennsylvania Junction Facilities substantially differ from the potential impacts at issue in this proceeding. Out of the 241 miles of proposed transmission line related to the 502 Pennsylvania Junction Facilities, only 1.2 miles were proposed to be located in Western Pennsylvania. *TrAILCo Order* at *68. In addition, as support for the proposal in that proceeding *TrAILCo* argued that “wholesale prices in the east are expected to go down while wholesale prices in the west will increase slightly “as a result of the initial resolution of congestion” but that any increases will be more noticeable in Ohio than Pennsylvania and will be entirely dependent on the types of generation that are built.” *TrAILCo Order* at *40-41.

In contrast, the IEC Project, as modified by the Settlement in this proceeding, will result in the construction of a brand new transmission line in Franklin County, Pennsylvania, approximately 14 miles of which will be located on presently unencumbered land in Franklin County, as well as two brand new substations in Franklin and York Counties. *See OCA M.B.* at 68. Moreover, PJM projects that construction of the IEC Project will only provide net economic benefits of \$32.5 million over a period of 15 years, with wholesale power prices increasing by approximately \$812.5 million over that same period of time. *See OCA M.B.* at 63-64. Pennsylvania alone will experience a net increase of approximately \$400 million in wholesale power prices from construction of the IEC Project, the highest of any state in the PJM region. *OCA M.B.* at 67.

The PUC did not err or commit an abuse of discretion in finding a public need for the 502 Facilities based on regional reliability factors. The Code does not define need; however, Pennsylvania courts have recognized that there is a need for regional electric service reliability and a reliable regional transmission system. Moreover, the General Assembly has recognized the importance of ensuring the reliability of electric transmission systems, including regional transmission systems, and the provision of sufficient electrical power at an affordable rate.

Finally, Section 2805 recognizes the need for the PUC and Pennsylvania utilities to work with generators, transmission companies, and distribution companies in the surrounding region, as well as the Federal Government and its agents to ensure safe and reliable electric service. Accordingly, we conclude that ensuring the "reliability" of an electrical transmission system, like the PJM Region, is necessary and proper for the accommodation, convenience, and safety of its patrons, employees, and the public.

Trail Appeal, 995 A.2d at 485-86.

Thus, the Commission's inquiry into 'need' is broad and must give weight to the impacts incurred by Pennsylvania, both economic and environmental. I agree with STFC, Franklin County and OCA that consideration should be given to any proven substantial costs and on the economic and environmental impacts to Pennsylvania. See *Robinson Twp v. Commonwealth*, 623 Pa. 564, 658, 83 A.3d 901, 958 (2013).¹¹

While the Commission may consider regional needs when assessing whether a proposed high-voltage transmission line is 'necessary,' it is not required to make a determination on this basis alone.¹² As OCA, Franklin County, and STFC argue, in *Energy Conservation*

¹¹ *Application of Pennsylvania Electric Company Seeking Approval to Locate, Construct, Operate and Maintain a High-Voltage Transmission Line Referred to as the Bedford North-Central City West 115 kV HV Transmission Line Project*, Docket No. A-2016-2565296 (Opinion and Order entered Mar. 8, 2018 at 14) (access available at <http://www.puc.pa.gov/pcdocs/1556807.docx>) (*Bedford North-Central City West 115 kV*).

¹² *See Application of PPL Electric Utilities Corporation, for Approval to Rebuild Approximately Six Miles of the Breinigsville-Alburtis 500 kV Transmission Line in Lower Macungie and Upper Macungie Townships, Lehigh County, Pennsylvania*, Docket No. A-2019-3007945, Order at 16 (Order entered Aug. 14, 2019) ("The Commission

Council of Pa. v. Pub. Util. Comm'n, 995 A.2d 465 (Pa.Cmwlt. 2010), the Commonwealth Court held that the need must address reliability issues necessary for finding a public need for a proposed HV transmission line and substation. The Court did not address the issue of congestion. In the instant case, the record shows no need because the project is primarily designed to address a congestion issue that no longer exists. I am also persuaded by the credible testimony of Mr. McGavran that outdated data from 2014 is still being used to support the need element. Also, the record shows the project would be detrimental economically and environmentally to Pennsylvania interests, thus, negating a need for the project. Economic and environmental impacts are discussed under separate headings.

Only recently did PJM add the phrase “related constraints” to the AP South Reactive Interface. Throughout the majority of the proceedings, the exclusive reason for the project was to alleviate congestion on the AP South Interface and now Transource ignores much of the drastically reduced congestion data after 2016 to support its argument because this data undermines the main reason for the project. Actual congestion costs were significantly less at \$56.2 million in 2015 and \$14.5 million in 2019. OCA St. 2, p. 17, Table 3, Monitoring Analytics, LLC *2019 State of the Market Report for PJM* at p. 543. Transource misstates the accuracy of PJM’s forecasted congestion as it combines the congestion of the APSRI interface with purported “related constraints” and ignores any inaccuracies of PJM’s forecasted congestion. The historical data shows that the IEC Project is not necessary pursuant to 66 Pa.C.S. § 1501. Building the Project 9A as amended by the partial settlement agreement would be unreasonable service to ratepayers in Pennsylvania as the project is very costly, likely to raise wholesale market prices in Pennsylvania, and because there is no demonstrable need for the project. Additionally, based upon the credible testimony of many stakeholders/landowners and government officials in this proceeding, there is substantial evidence to show the project would have an unnecessary negative impact on the economics and environment in York and Franklin Counties.

may consider ‘regional reliability needs’...) (available access at <http://www.puc.pa.gov/pcdocs/1631551.doc>) (*Breinigsville-Alburtis*).

In its Main Brief, Transource does not dispute that reliability “is not a driver” of the Project. Transource M.B. at 51. Instead, Transource argues the two go hand-in-hand, thus blurring the line between market efficiency projects to alleviate congestion versus reliability projects. Transource argues that the Commission has recognized “[r]emoving congestion resolves reliability violations”. Transource M.B. at 51.

As there is no longer significant congestion for the IEC Project to resolve on the AP South Interface, following Transource’s reasoning, reliability should have improved in that area. However, Transource makes no such contention, even though the two should go hand-in-hand pursuant to Transource’s argument. Rather, Transource argues now that there is the potential for reliability violations in the future if the applications and Settlement 9A are not approved. Transource M.B. at 51.

Reliability projects and market efficiency projects are different. PJM runs specific testing and analyses for reliability projects. It is undisputed that PJM did not perform its full set of reliability tests on the IEC Project to confirm that the identified potential reliability violations will actually occur in 2023. The reliability violations are only ‘potential’ reliability violations that might occur if the IEC Project is not constructed. It is undisputed that none of the projected reliability violations have occurred as of July 9, 2020 (the last day of evidentiary hearings) and that the Project is not intended to be the best or most economical solution to resolve any potential reliability violations.

Transource has insufficient evidence to show need because PJM did not conduct reliability testing. PJM’s projections regarding congestion cost have not been consistently accurate over time and there are not enough facts to support a finding of need when the congestion concern initially raised in the applications is gone or fluctuating outside of projections and the standard reliability tests were not performed by PJM. Further, the benefit/cost calculation seems to have changed since 2014 in addition to the congestion cost figures. This makes it difficult to compare benefit/cost ratios.

Moreover, while the Federal Power Act (FPA) does grant FERC exclusive jurisdiction over the interstate transmission of electric energy and electric wholesale rates, the FPA limits FERC authority, including its designee, PJM, to “those matters which are not subject to regulation by the States.” 16 U.S.C. § 824(a). FERC likewise recognizes this limitation stating the following as part of Order No. 1000:

We acknowledge that there is longstanding state authority over certain matters that are relevant to transmission planning and expansion, such as matters relevant to siting, permitting, and construction. However, nothing in this Final Rule involves an exercise of siting, permitting, and construction authority. The transmission planning and cost allocation requirements of this Final Rule, like those of Order No. 890, are associated with the processes used to identify and evaluate transmission system needs and potential solutions to those needs. In establishing these reforms, the Commission is simply requiring that certain processes be instituted. This in no way involves an exercise of authority over those specific substantive matters traditionally reserved to the states, including integrated resource planning, or authority over such transmission facilities. For this reason, we see no reason why this Final Rule should create conflicts between state and federal requirements.^[13]

Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 76 Fed. Reg. ¶ 49,842, 49,861 (Aug. 11, 2011) (FERC Order No. 1000). Thus, FERC’s authority does not pre-empt the Commission’s determination in this proceeding. As further indication of FERC’s limited role in approving transmission facilities, the U.S. Congress granted FERC limited authority to “issue one or more permits for the construction or modification of

¹³ As further summarized by the D.C. Circuit Court of Appeals:

In Order No. 1000, the Commission expressly “decline[d] to impose obligations to build or mandatory processes to obtain commitments to construct transmission facilities in the regional transmission plan.” More generally, the Commission disavowed that it was purporting to “determine what needs to be built, where it needs to be built, and who needs to build it. As the Commission explained on rehearing, “Order No. 1000’s transmission planning reforms are concerned with process” and “are not intended to dictate substantive outcomes.” The substance of a regional transmission plan and any subsequent formation of agreements to construct or operate regional transmission facilities remain within the discretion of the decision-makers in each planning region.

S.C. Pub. Serv. Auth. v. FERC, 762 F.3d 41, 57-58 (D.C. Cir. 2014) (internal citations omitted).

electric transmission facilities in a national interest electric transmission corridor [NIETC] designated by the Secretary” under certain limited conditions.¹⁴ 16 U.S.C. § 824p(b). As the Applicant’s proposed Pennsylvania siting locations are not within an NIETC, FERC has no jurisdiction in the siting of the IEC Project and the jurisdiction remains the Commission’s alone.

Pursuant to the constitutional, statutory, and regulatory standards of Pennsylvania, the Commission has the exclusive jurisdiction over both whether the proposed transmission infrastructure is needed and where it should be built. It is fully within the discretion of the Commission under Pennsylvania law to determine whether a transmission facility has sufficiently demonstrated that the proposed facility is “necessary or proper for the accommodation, convenience and safety of...the public.” 66 Pa. C.S. § 1501.

Transource seems to be creating new reasons for the project. Transource now argues that the IEC Project will primarily address congestion on the AP South Reactive Interface and related constraints, including the Safe Harbor-Graceton, Conastone-Peach Bottom, and AEP-DOM constraints. Transource M.B. at 66-68; Tr. at 2923-24. Transource argues that on a combined basis, congestion on these four constraints has remained persistently high and that PJM’s simulations accurately predicted congestion that would occur in 2019. Transource M.B. at 67-68.

I am not persuaded by PJM’s projections regarding the four constraints. The evidence shows that the IEC Project was designed and tailored to specifically address what at that time was thought to be persistent congestion on the AP South Reactive Interface. PJM initiated a long-term proposal window in 2014 (2014/2015 Long-Term Proposal Window)

¹⁴ One of those conditions is that the State commission or other entity traditionally responsible for the approval of high-voltage transmission facilities within an NIETC has withheld approval for more than 1 year. 16 U.S.C. § 824p(b)(1)(C)(i). In denying plaintiff’s argument that this meant FERC could exercise jurisdiction over facilities within an NIETC if a commission rejected the application, the Fourth Circuit held that “reading of the entire provision reveals that Congress intended to act in a measured way and conferred authority on FERC only when a state commission is unable to act on a permit application in a national interest corridor, fails to act in a timely manner, or acts inappropriately by granting a permit with project-killing conditions.” *Piedmont*, 558 F.3d at 315.

seeking solutions to, among other things, persistent future congestion on the AP South Reactive Interface. OCA M.B. at 36-37. As stated by Transource witness, Kamran Ali:

The 2014/15 RTEP Long Term Proposal Window solicited proposals to address, among other things, a number of transmission constraints on the AP South Reactive Interface. The AP South Reactive Interface is a set of four 500 kV lines which originate in West Virginia and terminate in Maryland and Virginia. *The primary goal was to reduce congestion on the AP South Reactive Interface*, which is one of the most historically congested flow gates in PJM.

Transource St. 2 at 7 (emphasis added).¹⁵ Congestion on the AP South Reactive Interface cost approximately \$800 million between 2012 and 2016. Transource St. 3 at 25.

In response to the 2014/2015 Long-Term Proposal Window, Transource submitted the IEC Project to specifically address congestion on the AP South Reactive Interface and ensure that congestion did not occur elsewhere. As stated by Transource witness Ali:

The IEC-West Project was intended to directly address the congestion on the AP South Reactive Interface described above. However, it was determined that some of the same higher cost generators that respond to the AP South Reactive Interface also respond to other congested facilities that interconnect Pennsylvania and Maryland. Thus, the construction of the IEC-West Project alone would not fully address the congestion issue and, instead, merely shift the congestion to other parts of the system. To avoid additional, unacceptable congestion on other parts of the system serving Pennsylvania and Maryland, the IEC-East Project was developed to help offload those higher cost generating facilities. The combination of both the IEC-West Project and IEC-East Project are interdependent components needed to address the congestion identified in PJM's 2014/15 RTEP Long Term Proposal Window.

Transource St. 2 at 11 (emphasis added); Tr. at 2132-33 (Transource witness Weber indicating that the problem statement to be solved during the 2014/2015 Long-Term Proposal Window was

¹⁵ See also, Transource St. 3 at 24-25.

to relieve congestion on the AP South Reactive Interface and not cause congestion elsewhere), Tr. at 2381.

In its selection of the IEC Project, PJM indicated that the “Transource [P]roject was approved by the PJM Board in 2016 as the more efficient, cost-effective project *to address persistent congestion identified in forward-looking economic studies on the AP-South Interface.*” Transource St. 8-R, Exh. TH-5R at 4 (emphasis added).¹⁶ Accordingly, contrary to Transource’s claims, the IEC Project is a market efficiency project that was solicited to address high levels of forecasted congestion on the AP South Reactive Interface, designed to alleviate that congestion, and selected because of its ability to relieve that future simulated congestion.

Now, Transource is arguing that the IEC Project is needed and should be approved on the basis that it primarily alleviates related congestion constraints, instead of what it was originally designed to do. Transource has discussed at length the nature of congestion on the AP South Reactive Interface and how the IEC Project is a unique solution, tailored to this specific issue. Tr. at 2387-2388. However, Transource has provided very little evidence on the nature of the related constraints, how the IEC Project has been optimized to address the related constraints, and whether this is the best alternative to address related constraints’ congestion.¹⁷

I am persuaded by OCA’s argument that of the four facilities that Transource now alleges that the IEC Project is needed to alleviate, the AP South Reactive Interface, AEP-DOM, and Safe Harbor-Graceton constraints did not make the list of the top 25 most congested facilities in the PJM Region during the first three months of 2020. OCA Hearing Exh. 6 at 559. The Conastone-Peach Bottom constraint only incurred congestion costs of approximately \$5.3

¹⁶ In the simulation that PJM performed in 2015, the PROMOD model simulated a congestion cost of \$110 million occurring on the AP South Reactive Interface in 2019. Tr. at 2936. According to the simulation, the AP South Reactive Interface had the highest congestion cost simulated in 2019 when compared to the Safe Harbor-Graceton, Conastone-Peach Bottom, and AEP-DOM constraints. *Id.* In reality, Congestion on the AP South Reactive Interface cost approximately \$14.5 million in 2019, substantially lower than predicted by PJM’s forward-looking models. Tr. at 2921. This indicates the erroneous assumptions that were used to calculate the benefit-cost ratio that PJM relied upon when selecting the IEC Project for approval.

¹⁷ For example, Transource PA does not reference the AEP-DOM, Safe Harbor-Graceton, or Conastone-Peach Bottom constraints in its case-in-chief. Transource St. 1-6.

million over that same period of time.¹⁸ *Id.* Moreover, there are two ongoing transmission projects that may alleviate these related constraints without the need for constructing the IEC Project: (1) the Hunterstown-Lincoln Re-build and (2) Project 5E. OCA M.B. at 105-06. These two additional market efficiency projects appear to be designed to enhance several of the facilities associated with the Conastone-Peach Bottom congestion constraint. Transource St. AA3, Exh. TJH-AA1 at 19. PJM, however, has not performed an analysis to determine if the Hunterstown-Lincoln Re-build and Project 5E would sufficiently alleviate these related constraints without the need for the IEC Project. OCA Hearing Exh. 3, Transource Response to OCA XLIII-12; Tr. At 2930.

Addressing congestion on the bulk electric system with transmission-based solutions is problematic. As Transource witnesses have acknowledged, economic congestion shifts frequently on the bulk electric grid among several constraints. Tr. at 2386; Transource St. 3AA-RJ at 8. This is evident in the PJM State of the Market Reports, which demonstrate high variability among the top 25 most congested constraints in the PJM system. For example, the top 25 most congested constraints in the PJM system in 2014 are depicted in the chart below:

¹⁸ Most recently, in the latest PJM State of the Market Report providing data through the first six months of 2020, the AP South Reactive Interface and AEP-DOM have still not made the list of the top 25 most congested facilities in the PJM region. See Monitoring Analytics, LLC, 2020, *Q2 State of the Market Report for PJM: January through June* at 566, https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2020/2020q2-som-pjm.pdf (last visited Sept. 24, 2020). Congestion on the Safe Harbor-Graceton and Conastone-Peach Bottom constraints has only cost approximately \$10.9 million through the first six months of 2020. *Id.*

Table 11-25 Top 25 constraints affecting PJM congestion costs (By facility): 2014

| Congestion Costs (Millions) | | | | | | | | | | | | | Percent of Total PJM Congestion Costs |
|-----------------------------|---------------------------|--------------|--------------|------------------|-----------------------|-------------------|----------|------------------|-----------------------|-------------------|----------|----------------|--|
| No. | Constraint | Type | Location | Day-Ahead | | | | Balancing | | | | Grand Total | |
| | | | | Load Payments | Generation Credits | Explicit Costs | Total | Load Payments | Generation Credits | Explicit Costs | Total | | |
| 1 | AP South | Interface | 500 | \$329.7 | (\$201.4) | (\$11.2) | \$520.0 | \$31.5 | \$73.5 | \$8.9 | (\$33.1) | \$486.8 | 25.2% |
| 2 | West | Interface | 500 | (\$21.3) | (\$297.0) | (\$79.1) | \$196.5 | \$17.7 | \$49.7 | \$17.0 | (\$15.0) | \$181.6 | 9.4% |
| 3 | Bagley - Graceton | Line | BGE | \$98.5 | (\$9.5) | (\$1.7) | \$106.3 | \$5.7 | (\$4.0) | \$4.5 | \$14.2 | \$120.5 | 6.2% |
| 4 | Bedington - Black Oak | Interface | 500 | \$42.8 | (\$43.9) | (\$0.2) | \$86.5 | \$3.9 | \$3.4 | (\$2.3) | (\$1.9) | \$84.6 | 4.4% |
| 5 | Breed - Wheatland | Flowgate | MISO | (\$17.7) | (\$100.2) | (\$9.3) | \$73.2 | \$2.4 | \$1.1 | \$5.6 | \$6.9 | \$80.1 | 4.1% |
| 6 | Benton Harbor - Palisades | Flowgate | MISO | (\$12.5) | (\$79.3) | (\$8.0) | \$58.8 | (\$0.2) | \$0.7 | (\$1.0) | (\$1.8) | \$57.0 | 2.9% |
| 7 | Cloverdale | Transformer | AEP | \$23.3 | (\$27.3) | \$0.2 | \$50.7 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$50.7 | 2.6% |
| 8 | BCPEP | Interface | Pepco | \$15.6 | (\$15.2) | (\$1.6) | \$29.3 | (\$1.6) | (\$14.2) | \$1.5 | \$14.1 | \$43.4 | 2.2% |
| 9 | Unclassified | Unclassified | Unclassified | \$2.0 | (\$11.8) | \$13.4 | \$27.3 | \$7.6 | \$1.6 | \$9.0 | \$15.1 | \$42.4 | 2.2% |
| 10 | Monticello - East Winamac | Flowgate | MISO | (\$3.8) | (\$46.7) | \$1.6 | \$44.6 | \$2.6 | \$4.3 | (\$10.8) | (\$12.5) | \$32.1 | 1.7% |
| 11 | Oak Grove - Galesburg | Flowgate | MISO | (\$28.4) | (\$62.2) | (\$2.3) | \$31.5 | (\$0.4) | \$0.5 | (\$0.3) | (\$1.3) | \$30.3 | 1.6% |
| 12 | Cherry Valley | Transformer | ComEd | \$21.9 | (\$20.4) | \$5.2 | \$47.5 | (\$5.1) | \$1.1 | (\$11.3) | (\$17.5) | \$30.0 | 1.6% |
| 13 | Cook - Palisades | Flowgate | MISO | (\$12.6) | (\$55.3) | (\$5.3) | \$37.4 | (\$1.5) | \$1.6 | (\$6.2) | (\$9.3) | \$28.1 | 1.5% |
| 14 | Readington - Roseland | Line | PSEG | (\$8.9) | (\$46.1) | (\$12.2) | \$25.1 | \$0.9 | \$5.4 | \$5.8 | \$1.3 | \$26.4 | 1.4% |
| 15 | Cloverdale | Transformer | AEP | \$23.1 | (\$4.8) | (\$2.3) | \$25.7 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$25.7 | 1.3% |
| 16 | Wolf Creek | Transformer | AEP | \$4.6 | \$1.3 | \$4.7 | \$8.0 | \$3.6 | \$5.6 | (\$29.3) | (\$31.3) | (\$23.3) | (1.2%) |
| 17 | Brambleton - Loudoun | Line | Dominion | (\$11.2) | (\$35.1) | (\$1.3) | \$22.6 | \$0.6 | \$0.0 | \$0.1 | \$0.6 | \$23.2 | 1.2% |
| 18 | SENECA | Interface | PENELEC | \$5.6 | \$9.9 | (\$6.5) | (\$10.9) | (\$3.0) | \$1.2 | (\$6.1) | (\$10.4) | (\$21.3) | (1.1%) |
| 19 | Wescosville | Transformer | PPL | \$17.6 | (\$0.8) | \$2.7 | \$21.1 | (\$0.0) | \$0.0 | \$0.0 | (\$0.0) | \$21.1 | 1.1% |
| 20 | East | Interface | 500 | (\$9.8) | (\$34.2) | (\$3.4) | \$21.0 | \$0.3 | \$0.7 | \$0.5 | \$0.1 | \$21.1 | 1.1% |
| 21 | Nelson - Cordova | Line | ComEd | (\$24.7) | (\$47.1) | \$4.2 | \$26.6 | (\$0.7) | \$1.1 | (\$4.3) | (\$6.0) | \$20.5 | 1.1% |
| 22 | Bridgewater - Middlesex | Line | PSEG | \$0.2 | (\$22.2) | (\$3.0) | \$19.4 | (\$1.5) | \$0.1 | \$1.4 | (\$0.2) | \$19.2 | 1.0% |
| 23 | 5004/5005 Interface | Interface | 500 | (\$0.7) | (\$23.6) | (\$3.3) | \$19.5 | \$8.1 | \$17.5 | \$7.3 | (\$2.1) | \$17.4 | 0.9% |
| 24 | Atlantic - Larrabee | Line | JCPL | \$2.0 | (\$14.8) | (\$0.7) | \$16.1 | \$0.0 | \$1.3 | \$1.2 | (\$0.1) | \$16.0 | 0.8% |
| 25 | Amos | Transformer | AEP | \$1.6 | (\$12.8) | (\$0.2) | \$14.2 | \$1.2 | (\$1.6) | (\$1.2) | \$1.6 | \$15.8 | 0.8% |

OCA Cross Exh. 7 at 2. Notably, the AEP-DOM, Safe Harbor-Graceton, and Conastone-Peach Bottom constraints are missing in the year that PJM initiated the 2014/2015 Long-Term Proposal Window.¹⁹ *Id.*

In 2017, however, the top 25 most congested facilities are different than 2014, as depicted below:

¹⁹ The AEP-DOM constraint appears on the 2015 PJM State of the Market Report. OCA Cross Exh. 7 at 1. The Conastone-Peach Bottom constraint is not present on the PJM State of the Market Reports until the 2016 report. OCA Cross Exh. 8 at 2. The Safe Harbor-Graceton constraint is not present on the PJM State of the Market Reports until the 2017 report. OCA Cross Exh. 8 at 1.

Table 11-25 Top 25 constraints affecting PJM congestion costs (By facility): 2017

| Congestion Costs (Millions) | | | | | | | | | | | | | Percent of Total PJM Congestion Costs | |
|-----------------------------|----------------------------|-------------|----------|------------------|-----------------------|-------------------|--------|------------------|-----------------------|-------------------|---------|----------------|--|------|
| No. | Constraint | Type | Location | Day-Ahead | | | | Balancing | | | | Grand Total | | 2017 |
| | | | | Load Payments | Generation Credits | Explicit Costs | Total | Load Payments | Generation Credits | Explicit Costs | Total | | | |
| 1 | Braidwood - East Frankfort | Line | ComEd | (\$4.7) | (\$49.7) | \$0.3 | \$45.3 | \$0.7 | \$1.9 | (\$0.7) | (\$1.9) | \$43.4 | 6.2% | |
| 2 | Conastone - Peach Bottom | Line | 500 | \$38.7 | \$1.6 | \$0.1 | \$37.2 | \$2.0 | \$1.3 | \$1.5 | \$2.2 | \$39.5 | 5.7% | |
| 3 | Emilie - Falls | Line | PECO | \$12.0 | (\$13.6) | (\$0.1) | \$25.6 | (\$0.1) | \$1.2 | \$0.8 | (\$0.4) | \$25.1 | 3.6% | |
| 4 | Graceton - Safe Harbor | Line | BGE | \$30.2 | \$7.1 | (\$0.0) | \$23.1 | \$1.7 | \$2.3 | \$1.4 | \$0.8 | \$23.9 | 3.4% | |
| 5 | 5004/5005 Interface | Interface | 500 | (\$9.9) | (\$38.7) | (\$3.8) | \$25.0 | \$4.3 | \$11.4 | \$4.6 | (\$2.5) | \$22.5 | 3.2% | |
| 6 | AP South | Interface | 500 | \$15.3 | (\$9.2) | (\$2.4) | \$22.1 | (\$0.0) | \$1.3 | \$0.9 | (\$0.5) | \$21.6 | 3.1% | |
| 7 | Westwood | Flowgate | MISO | (\$22.1) | (\$41.3) | \$0.5 | \$19.7 | \$1.2 | \$0.8 | (\$0.5) | (\$0.1) | \$19.6 | 2.8% | |
| 8 | Cherry Valley | Transformer | ComEd | \$8.9 | (\$10.1) | \$2.1 | \$21.0 | (\$0.6) | \$0.9 | (\$0.9) | (\$2.3) | \$18.7 | 2.7% | |
| 9 | Carson - Rawlings | Line | Dominion | \$14.5 | (\$4.3) | \$0.8 | \$19.6 | \$1.0 | \$1.6 | (\$0.8) | (\$1.4) | \$18.2 | 2.6% | |
| 10 | Conastone - Otter Creek | Line | PPL | \$23.0 | \$8.5 | (\$0.5) | \$13.9 | \$1.5 | \$1.8 | \$1.5 | \$1.2 | \$15.1 | 2.2% | |
| 11 | Conastone - Northwest | Line | BGE | \$12.7 | (\$1.1) | (\$0.4) | \$13.4 | \$0.4 | \$0.7 | \$1.0 | \$0.7 | \$14.1 | 2.0% | |
| 12 | Three Mile Island | Transformer | 500 | \$7.4 | (\$4.9) | (\$0.3) | \$11.9 | (\$0.1) | (\$0.6) | \$0.9 | \$1.4 | \$13.3 | 1.9% | |
| 13 | Butler - Shanorma | Line | APS | (\$10.5) | (\$20.9) | \$1.0 | \$11.4 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$11.4 | 1.6% | |
| 14 | Lakeview - Greenfield | Line | ATSI | (\$3.5) | (\$14.5) | \$0.2 | \$11.2 | \$0.1 | \$0.7 | \$0.3 | (\$0.4) | \$10.8 | 1.5% | |
| 15 | Alpine - Belvidere | Flowgate | MISO | (\$2.3) | (\$14.0) | (\$0.9) | \$10.8 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$10.8 | 1.5% | |
| 16 | Bedington - Black Oak | Interface | 500 | \$5.5 | (\$4.1) | (\$0.2) | \$9.3 | \$0.1 | \$0.3 | \$0.4 | \$0.2 | \$9.5 | 1.4% | |
| 17 | Person - Sedge Hill | Line | Dominion | \$16.2 | \$3.5 | \$2.0 | \$14.7 | \$0.6 | \$2.7 | (\$3.2) | (\$5.3) | \$9.3 | 1.3% | |
| 18 | Lake George - Aetna | Flowgate | MISO | (\$1.1) | (\$9.0) | (\$1.5) | \$6.4 | (\$2.2) | \$0.9 | \$5.8 | \$2.7 | \$9.2 | 1.3% | |
| 19 | Batesville - Hubble | Flowgate | MISO | (\$5.5) | (\$19.4) | (\$4.5) | \$9.4 | (\$0.2) | (\$1.2) | (\$1.6) | (\$0.6) | \$8.9 | 1.3% | |
| 20 | Byron - Cherry Valley | Flowgate | MISO | (\$0.9) | (\$9.3) | (\$0.4) | \$8.0 | \$0.0 | \$0.0 | \$0.0 | \$0.0 | \$8.0 | 1.1% | |
| 21 | AEP - DOM | Interface | 500 | \$3.3 | (\$4.3) | (\$0.1) | \$7.5 | \$0.5 | \$0.5 | \$0.2 | \$0.3 | \$7.8 | 1.1% | |
| 22 | Brunner Island - Yorkanna | Line | Met-Ed | \$6.0 | (\$1.6) | (\$0.3) | \$7.3 | (\$0.0) | (\$0.1) | \$0.1 | \$0.2 | \$7.5 | 1.1% | |
| 23 | Brokaw - Leroy | Flowgate | MISO | \$0.8 | (\$7.6) | (\$3.7) | \$4.8 | \$0.2 | \$0.3 | \$2.6 | \$2.5 | \$7.3 | 1.0% | |
| 24 | Loretto - Vienna | Line | DPL | \$8.8 | \$2.3 | \$0.7 | \$7.2 | (\$0.4) | \$0.1 | \$0.2 | (\$0.3) | \$6.9 | 1.0% | |
| 25 | Pleasant View - Ashburn | Line | Dominion | \$5.8 | (\$3.7) | (\$0.3) | \$9.1 | (\$1.1) | \$1.0 | (\$0.1) | (\$2.3) | \$6.8 | 1.0% | |

OCA Cross Exh. 8 at 1. Out of the 25 constraints listed above, more than 20 of them did not appear in 2014.

This trend has continued in the most recent PJM State of the Market Report for the first quarter of 2020. Many of the constraints listed in the top 25 through the first quarter of 2020 do not appear in the 2017 Report, including the AP South Reactive Interface and the AEP-DOM constraints. OCA Hearing Exh. 6 at 559, OCA Cross Exh. 8 at 1. Accordingly, variables other than the IEC Project are affecting these related constraints in future years. Thus, the IEC Project is no longer needed for the purpose for which it was designed in 2016.

I am not persuaded to find that zones/areas in Pennsylvania above the congestion point in the Metro-Washington DC area, are enjoying discriminatory prices/rates when compared to Baltimore/Washington DC area just because there are natural gas generators operating in the north-western portions of the state. Other sovereign states make decisions separate from the Pennsylvania General Assembly and the Commission regarding whether to encourage or invest in renewable generation, fracking, or natural gas generation facilities within their borders. Pennsylvanians live with the environmental and economic costs associated with power

generation. Yet the only concern appears to be with “discriminatory prices” in our jurisdiction. If congestion on the AP South Reactive Interface has substantially disappeared since 2014, it is unclear how the proposed IEC project will affect generators located in Pennsylvania. There are no generators intervening in this proceeding to represent their individual interests.

Transource is a foreign company asserting that economic congestion creates artificially low prices in the unconstrained region resulting in rates that are discriminatory and unfair for customers in the constrained region. Transource M.B. at 46-47. I reject this premise as evidence to find “need” pursuant to the meaning of the term in 52 Pa. Code Section 57.76(a)(1). Economic congestion is not a form of rate discrimination that implicates the Commission’s authority, but may be an appropriate market-based response to the wholesale power market. Any difference in rates above versus below the point of congestion or constraint can represent reasonable differences in the cost to serve customers in the constrained region as opposed to those in the unconstrained region. I do not find rates in a constrained area necessarily per se discriminatory.

No one from Maryland or Washington D.C. testified at any public input hearing to complain about discriminatory rates in favor of the project. Some individuals from Maryland spoke against the project at public input hearings. For example, Patty Hankins of 229 St. Mary’s Road, Pylesville, Maryland testified against the project as there was insufficient cost updates from 2015 data to warrant the project. She feared projected costs kept escalating and she argued the existing Otter Creek to Conastone 230 kV line rebuilt by PPL could carry two 230 kV circuits but was currently carrying one as of June 1, 2018. Tr. 1448-1450, 1961-1964. Ms. Hankins testified that the cost to add 230 kV lines to PPL’s existing transmission towers would cost less than the IEC project. Tr. 1961-1964.

I heard no complaints from any individuals that rates were too high or prices discriminatory in Washington D.C. or in Maryland compared to Pennsylvania, or that they did not have reliable electric service in those areas. Only Transource’s witnesses testified that there was price discrimination. PJM did not identify or consider non-transmission alternatives to alleviate the projected congestion in the AP Interface. Maryland may have aggressive state

policies regarding carbon reduction goals through the encouragement of renewable generation or implementation of demand response programs. Maryland has off-shore wind generation that it may want to promote.

Potential future generation facilities study agreements (FSAs) were not inputs in the PROMOD model when calculating the benefits of the IEC Project. Thirty six percent of FSAs come to fruition. Many variables that impact constraints/congestion were not considered even though costs due to congestion was cited as the main reason for the competitive bidding process and selection of the project. Additionally, no consideration as to the existence of PPL's transmission lines/facilities close to and parallel to the York (East) proposed route of Project 9A seems to have occurred prior to selection of the Project 9A. Constructing a second transmission line with monopoles when there is a parallel transmission line owned by a pre-existing certificated utility that offers transmission services near the proposed route with capacity for expansion is analogous to constructing a new interstate highway when there is an existing highway with capacity for expansion running parallel to the proposed route. As far as economic and environmental impacts, even Transource admits in its filing of an Amended Application that with the amendments to its original proposal, there will be less economic and environmental impact than before in York County. Yet there is no change to the proposed IEC West route through Franklin County, when again the proposed original route parallels an existing transmission line route owned by West Penn Power and/or MAIT.

Section 1304 of the Public Utility Code states in relevant part:

No public utility shall, as to rates, make or grant any unreasonable preference or advantage to any person, corporation, or municipal corporation, or subject any person, corporation, or municipal corporation to any unreasonable prejudice or disadvantage. No public utility shall establish or maintain any unreasonable difference as to rates, either as between localities or as between classes of service...This section does not prohibit the establishment of reasonable zone or group systems, or classifications of rates....

66 Pa. C.S. § 1304.²⁰ Economic congestion is not a form of rate discrimination implicated by Section 1304 of the Public Utility Code. Economic congestion is a market-based response to the competitive wholesale power market. That is, congestion is dynamic and dependent upon a multitude of market factors, including the price of generation, the location of resources, and where the load is that needs to be served. OCA St. 2 at 14. Moreover, while economic congestion can be caused, in part, by operating limits on transmission facilities, it can also be ameliorated by the construction of low-cost generation resources or demand response programs in the constrained region. Tr. at 2266. In fact, economic congestion is supposed to serve as a price signal to customers in the constrained region to take economic actions.²¹ Accordingly, economic congestion is not a rate or preference set or established by a public utility or entity as set forth in Section 1304 of the Public Utility Code. Rather, it is the wholesale power market working as intended.

Moreover, Section 1304 of the Public Utility Code indicates that differences in rates are permissible when that difference is not unreasonable or undue. 66 Pa. C.S. § 1304, *see also Painter v. Pa. Pub. Util. Comm'n*, 116 A.3d 749, 754-55 (Pa. Cmwlth. 2015) (quoting *Mill v. Pa. Pub. Util. Comm'n*, 447 A.2d, 1100, 1102 (Pa. Cmwlth. 1982)) (“The clear implication from this language is that a person may be given a rate preference so long as it is not unreasonable, and we believe that it falls to the Commission to determine under what circumstances and in what amounts such a preference would be reasonable.”). In this instance, economic congestion is the result of a reasonable difference in the cost to serve customers in the

²⁰ The Company does not rely on any statutory language or case law to support its proposition that economic congestion is a form of rate discrimination that must be remedied by the Commission. The Commission’s exercise of power, however, must be conferred by clear and unmistakable legislative language. *Process Gas Consumers Group v. Pa. Pub. Util. Comm’n*, 511 A.2d 1315, 1319 (Pa. 1986) (“The power and authority to be exercised by administrative commissions must be conferred by legislative language clear and unmistakable. A doubtful power does not exist...They should act within the strict and exact limits defined.”).

²¹ As the Independent Market Monitor concluded, PJM’s market efficiency process heavily favors transmission solutions preventing the possibility of new generation from responding to these market signals. OCA M.B. at 80, n.47.

constrained region as opposed to customers in the unconstrained region.²² It is noted that much of the congestion at issue has substantially disappeared since 2014.

Even if I were to find price differences have impacts to those affected below the constraints, those concerns would be weighed against the detrimental impacts that this would have to those load-serving entities on the unconstrained side, as well as the economic and environmental impacts of new transmission infrastructure. Pa. Const. art. I, § 27; 66 Pa. C.S. § 1501, 52 Pa. Code § 57.76(a).

PJM's forward-looking model projects that if the IEC Project is constructed, the PJM region would only experience net benefits of \$32.5 million over a period of 15 years and Pennsylvania, in particular, would experience a net increase of \$400 million in wholesale power prices over that same period of time. OCA Hearing Exh. 3, Transource Response to OCA XLIII-4. This result would be produced by constructing a transmission project that is guaranteed to cost at minimum \$476 million and will impact the natural, historic, scenic, and aesthetic lands of Franklin and York Counties, Pennsylvania, and the property rights/market values of those Counties' landowners. Accordingly, while there may be some forecasted price differences in PJM's forward-looking models, any reduction in "price discrimination" for regions below the constraints is outweighed by the anticipated harm caused to Pennsylvania by the IEC Project.

As further support for the need of the IEC Project, Transource argues that the IEC Project will provide additional benefits to Pennsylvania, including providing Pennsylvania generators with greater access to electric power markets, mitigation of extreme weather/load events, increased import/export capability between capacity zones, enhanced competition in PJM, additional jobs, increased tax revenues; and increased economic activity. Transource M.B. at 54-55. More generally, the Company asserts that the Commission should approve the IEC

²² See *Lloyd v. Pa. Pub. Util. Comm'n*, 904 A.2d 1010, 1016 (Pa. Cmwlth. 2006) (quoting *Phila. Suburban Water Co. v. Pa. Pub. Util. Comm'n*, 808 A.2d 1044, 1060 (Pa. Cmwlth. 2002)) ("[I]n order for a rate differential to survive a challenge brought under Section 1304 of the Public Utility Code...the utility must show that the differential can be justified by the difference in costs required to deliver service to each class. The rate cannot be illegally high for one class and illegally low for another...Overall the rate differentials must advance efficient and satisfactory service to the greatest number at the lowest overall charge.")

Project because Pennsylvania routinely benefits from PJM's regional transmission planning and should provide the same benefit for other states. Transource M.B. at 54-57.

No natural gas generators intervened in this proceeding to protect any perceived self-interest benefit to the project. The mere assertion that generators located in Pennsylvania would have greater access to electric power markets is insufficient evidence for me to find the same. Bald assertions do not constitute substantial evidence. *Brunner v. PPL Elec. Utils. Corp.*, Docket No. C-2018-3006175 (Final Order entered on October 8, 2019); citing *Bervinchak v. PPL Elec. Utils. Corp.*, Docket No. C-2016-2572824 (Final Order entered on October 2, 2018). *See also, Pa. Bureau of Corrs. v. City of Pittsburgh*, 532 A.2d 12 (Pa. 1987). While the Commission's scope of inquiry to determine need in this proceeding is broad, I am more focused on whether this Project is necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public. *Pa. Power & Light Co. v. Pa. Pub. Util. Comm'n*, 696 A.2d 248, 250 (Pa. Cmwlth. 1997).

Also, I have considered the testimony of workers with the International Brotherhood of Electrical Workers (IBEW) at the public input hearings, but whether these workers receive economic benefits from the Project 9A is irrelevant to showing whether the IEC Project is needed to alleviate congestion on the AP South Reactive Interface. Jobs in Pennsylvania and tax revenues are a benefit to a transmission construction project, but any benefits concerning additional employment, increased tax revenues, and economic activity are temporary in nature due to the temporary nature of the construction of the lines. Additionally, Transource will use AEP knowledge/employees to build the transmission towers, so it is unclear how many or what type of construction jobs will be generated for Pennsylvanians. Once this Project is constructed, there will be long-lasting, permanent consequences to the landscape of Pennsylvania, increased wholesale power prices in Pennsylvania, and costs borne by the transmission zones that are purported to benefit. Due to the dynamic nature of congestion and the difficulty in accurately assessing the nature, scope, and extent of future congestion, it is unclear how the IEC Project will impact Pennsylvania generation.

Pennsylvania has benefitted from its participation in PJM and through regional transmission planning; however, under these particular circumstances, the IEC Project as a market efficiency project does not provide sufficient benefits to Pennsylvania or the PJM region as a whole. If approved, PJM projects that this Project will decrease wholesale power prices by approximately \$845 million primarily for transmission zones south of the AP South Reactive Interface, while at the same time increasing wholesale power prices by \$812 million for transmission zones primarily to the north and east of the AP South constraint. Overall, PJM forecasts a net benefit of \$32.5 million to the PJM region over a period of 15 years with a total revenue requirement of at least \$509 million over that same period of time. All of this is to address a congestion constraint that has diminished to very low levels since this Project was selected. This is a costly project to Pennsylvania compared to the net benefit to address vague constraints.

I am persuaded by the credible testimony of OCA witness Rubin who testified during cross-examination by Transource counsel:

Under any logical view of what's happening. If you build this project, you can save utilities in Maryland, Virginia, and the District of Columbia almost a billion dollars over 15 years; and, if you don't build that project, that same power is going to be used in Pennsylvania, Ohio, Illinois, and New Jersey at a cost of about \$970 million.

So, yes, there is some congestion. There is a technical problem to be solved, and the value of that congestion as laid out in the most recent estimate we have is less than a million dollars a year over the next 15 years. So this project makes no sense. I don't care how you run the numbers or how you talk about it. Those are the latest numbers we have, and you can exclude them if you want to but that's reality.

Tr. at 2504.

The methodology performed by PJM to develop the benefit-cost ratio of the IEC Project²³ is deficient when measured against the constitutional, statutory, and regulatory standards of Pennsylvania law. PJM's failure to consider increased wholesale power prices in Pennsylvania when calculating the benefit-cost ratio, frequent changes to how the benefit-cost ratio is calculated even during this proceeding, changes to how the benefits are simulated, and the uncertain nature and extent to which transmission zones benefit all cast doubt on the benefits, if any to Pennsylvanians. *Id.*

PJM's market efficiency process is narrowly focused on whether the proposed project meets the requirements set forth in PJM's Operating Agreement and manuals. PJM does not consider, nor is it required to consider, the public policy and environmental concerns that are required by this Commission under the Pennsylvania Constitution and the statutory and regulatory laws of this Commonwealth. OCA St. 2 at 9-10; Tr. at 2287. As further summarized by OCA witness Rubin in his direct testimony:

Q. As a matter of regulatory policy (and not as a matter of law), in your opinion does PJM's selection of the IEC Project as one that should be pursued carry with it any implications for this Commission's review of the IEC Project?

A. In my opinion, as a matter of public policy, PJM's selection of the IEC Project should not supersede in any way this Commission's duty under Pennsylvania law and regulations to determine whether construction and operation of the IEC Project is necessary or proper for the service, accommodation, convenience or safety of the public. Indeed, in my opinion this Commission has the obligation to fully comply with the law and its regulations and independently determine whether the IEC Project is in the best interests of the Commonwealth in general and utility consumers in particular.

In discovery, OCA asked the representative of PJM (Transource witness McGlynn) whether PJM considered

²³ Pursuant to its Operating Agreement, a market efficiency project must have a benefit-cost ratio of 1.25:1 to be considered economically viable and recommended for approval to the PJM Board of Directors. Transource St. 7-R, Exh. SRH-3R at 11.

any of the factors this Commission is required to consider in approving the development and siting of two substations and more than 30 miles of new high-voltage transmission lines. His responses demonstrate that PJM does not consider any of the factors this Commission must consider before approving substation siting, new transmission lines, or the specific locations of the line. I have attached as Schedule SJR-8, copies of interrogatory answers where Mr. McGlynn acknowledges that PJM does not consider the issues associated with siting substations or transmission lines that this Commission is required to consider.

Moreover, PJM's review process does not consider Pennsylvania law that requires projects to demonstrate that they have minimized environmental impacts (particularly on public lands and waterways) or adequately protected agricultural land.

Mr. McGlynn went to great lengths to explain the limit of PJM's selection of the IEC Project, stating: "PJM does not opine or determine the specific location or route of projects. The siting of the project components described in the Application is the responsibility of Transource PA." Response to OCA II-03, included in Schedule SJR-8.

Q. In your opinion, again as a matter of regulatory policy and not as a question of law, should PJM's selection of the IEC Project affect this Commission's determination of need for the IEC Project?

A. In my opinion, as a matter of sound public policy, the Commission should make an independent determination of the need for the IEC Project, considering the likely costs (including environmental and land-use impacts) and benefits, as set forth in Pennsylvania law and regulations.

OCA St. 1 at 43-44 (footnotes omitted).

The Commission has a duty to review the evidence in its entirety, assess whether that evidence is sufficient under Pennsylvania law, and render a decision to that effect. Increased wholesale power prices in Pennsylvania that result from construction of the IEC Project are being considered as a factor despite Transource's argument that because congestion represents a form of rate discrimination, consideration of these costs perpetuates rate discrimination.

Transource M.B. at 61. Economic congestion is not a form of rate discrimination, rather, it is a market-based response to a variety of factors. See OCA R.B., Section V.B.3.

Moreover, the purpose of a benefit-cost analysis is to attempt to capture the likely consequences of an activity and to express those consequences in the same units so that they can be compared. OCA St. 1 at 23. All costs directly related to the construction of the IEC Project should be taken into consideration, regardless of whether that impact is beneficial or detrimental. Contrary to the Company's claims, PJM previously considered increased wholesale power prices resulting from higher-voltage regional market efficiency projects.²⁴ OCA M.B. at 50-51. 66 Pa. C.S. § 1501; 15 Pa. C.S. § 1511. Ignoring the more than \$400 million in increased wholesale power prices attributed to Pennsylvania as a result of the IEC Project does not satisfy that obligation. Accordingly, increased wholesale power prices are real costs to customers that show there is no need for the project.

I am persuaded by the credible witness Rubin in his direct testimony:

Q. On page 6, Mr. Cawley criticizes you, saying “no customer or group of customers is entitled to lower cost generation created by congestion constraints.” Do you agree?

A. Yes, I agree with him that customers are not “entitled” to the benefits of market inefficiencies. Contrary to the implications of Mr. Cawley's statements, however, I am not suggesting that customers in formerly unconstrained zones should be compensated in any way for the loss of these inefficiency benefits. If I felt that customers were “entitled” to those benefits, I would necessarily be asking that customers be compensated when those benefits are lost. But that is not the case. I am stating only that the loss of the benefit must be recognized for what it is -- a very real cost that would be a direct result of constructing the Project. As I have explained, the change in power prices on both sides of the constraint must be evaluated in determining whether a project

²⁴ PJM did not remove consideration of these costs on the basis that it constitutes discrimination in rates. See OCA Cross Exh. 4 at 8. Rather, PJM's reasoning for removal of these costs in the calculation to determine the benefits of a regional market efficiency project was to align the benefits of the project with the transmission zones that would be responsible for the cost of the project and to increase the number of projects that can qualify as a market efficiency project. *Id.*

creates an overall benefit or detriment for the PJM system as a whole. If it is cost-effective for the system as a whole to eliminate the congestion, then the benefiting zones should pay for the project and there should not be any compensation to the non-benefiting zones. This is precisely because customers are not “entitled” to the benefits of market inefficiencies.

But following Mr. Cawley’s suggestion and completely ignoring the loss of lower-cost power to many Pennsylvania consumers would lead to an absurd result that does not represent the real world, as I discussed above. Simply stated, spending almost \$500 million to eliminate a \$17 million inefficiency makes no sense, but that is exactly what Transource is proposing and Mr. Cawley appears to be supporting. The only way to reach such a result is to ignore what happens on both sides of the congestion point.

OCA St. 1-SR at 13 (emphasis in original). Monitoring Analytics, LLC, or the Independent Market Monitor, similarly agrees that all costs are relevant to an evaluation of the actual costs and benefits of the Project and that there is no reason to ignore any of the costs. OCA Cross Exh. No. 12 at 7-8.

When PJM selected the IEC Project in December 2016, it made a filing with FERC seeking approval to allocate how the costs of the Project are recovered. Transource St. 7-R, Exh. SRH-3R at 8-9. Pursuant to PJM’s Operating Agreement, costs of the IEC Project are allocated in a proportionate manner based upon the extent to which each PJM Transmission Zone benefits from construction of the IEC Project. *Id.*; *see also* Transource St. 8-R, Exh. TH-3R at 31. At the time the filing was approved, the allocation factors were based upon PJM’s simulations performed prior to August 2016. Transource St. 8-R, Exh. TH-3R at 31. However, PJM has stated that it does not anticipate updating the allocation factors approved by FERC in 2016 if the IEC Project is approved by the Commission. OCA Hearing Exh. 3, Transource Response to OCA XLIII-19.

Since then, the number of transmission zones that benefit from the IEC Project and the extent to which they are projected to benefit have changed throughout the course of this proceeding. As a result, some transmission zones that were once expected to benefit and have some responsibility for paying the costs of the Project, no longer benefit. For example, the COMED Transmission Zone, located in a portion of Illinois has been allocated approximately

2.16 percent of the project cost. Transource St. 8-R, Exh. TH-3R at 31; OCA Cross Exh. 10. Relying on the September 2018 evaluation of the IEC Project, OCA witness Rubin calculated that load-serving entities in the COMED Transmission Zone could expect to pay approximately \$10.76 million over a period of 15 years.²⁵ OCA St. 1, Sch. SJR-5. In the most recent simulation performed by PJM in December 2019, however, the COMED Transmission Zone is projected to experience approximately \$16.3 million in increased wholesale power prices over a period of 15 years resulting from the IEC Project. OCA Hearing Exh. 3, Transource Response to OCA XLIII-4. Not only will load-serving entities in the COMED Transmission Zone see increased wholesale power prices, but they will also have to pay for a portion of the IEC Project.

Additionally, the APS Transmission Zone, which is composed of a portion of Western Pennsylvania, West Virginia, Maryland, and Virginia, is required to pay 8.73 percent of the IEC Project Cost. Transource St. 8-R, Exh. TH-3R at 31; OCA Cross Exh. 10. Yet, PJM's latest re-evaluation indicates that the APS Transmission Zone will see reduced wholesale power prices of approximately \$60 million over the first 15 years of the Project's service life, or 7.13 percent of the total purported Project benefits.²⁶ OCA Hearing Exh. 3, Transource Response to OCA XLIII-4. Accordingly, load-serving entities in the APS Transmission Zone are expected to pay a greater percentage of the cost to construct the IEC Project than it would share in the benefits of the IEC Project.

Accordingly, while Transource may be recovering costs from transmission zones that benefit, the dynamic nature of simulating the benefits of a market efficiency project has left the allocation factors outdated and not reflective of current simulation results. Moreover, because those responsible for construction of facilities related to the IEC Project would collect a revenue requirement for 50 to 60 years, or for the useful life of the IEC Project, the Company, in

²⁵ The information presented in Schedule SJR-5 relied upon the September 2018 evaluation, which estimated a PVRR of approximately \$498 million. OCA St. 1, Sch. SJR-5. Most recently, the Company estimates that the PVRR of the IEC Project, inclusive of the amended East Portion, is anywhere from approximately \$509 to \$528 million. Transource St. AA3, Exh. TJH-AA3 at 3-4. The OCA further notes that the IEC Project could exceed this amount as it is not subject to a price cap. *See* OCA M.B. at 66, n.39.

²⁶ $\$60.3 \text{ Million} \div \$844.8 \text{ Million} = 7.13\%$. OCA Hearing Exh. 3, Transource Response to OCA XLIII-4.

addition to the other entities responsible for construction of the IEC Project, will continue to collect costs related to the IEC Project while it impacts Pennsylvania.

Need within the meaning of Section 57.76(a)(1) is a threshold standard, and must be proven before other factors are considered. As it was not proven by the applicant(s), I recommend denying the Applications, the partial settlement, Shelter Petitions and pending Eminent Domain Applications.

Even though I find no need for the project, in the event the Commission disagrees with my conclusion, I am continuing my analysis with the other now moot factors and standards.

C. Health and Safety of the Public

1. Transource's Position

Transource avers it will incorporate AEP's experience as a large electric utility in safely constructing its portion of the Project. Construction will comply with all Occupational Safety and Health Administration (OSHA) rules and regulations, while keeping environmental impact to a minimum. Transource will have dedicated safety personnel for the Project and each contractor will be required to have a safety program. *See* Attachment 4 to Siting Application.

Likewise, PPL will follow its well-established safety protocols in constructing its portion of the IEC Project. PPL's construction practices are set forth in Supplemental Attachment 4 to the Amended Siting Application. Transource contends the IEC Project will meet or exceed all National Electric Safety Code (NESC) requirements as detailed in Attachment 4 to the original Siting Application and in Supplemental Attachment 4 to the Amended Siting Application.

2. Protestants'/Intervenors' positions

OCA had no position on this issue. However, many affected landowners testified at site views and public input hearings regarding what they perceived to be a project designed to harm their health and safety. Tr. 670, 689, 696, Tr. 701, Tr. 790, Tr. 820, 828, 845, 853 - 854, 855, 858, 880, 914, 935, 957, 958, 1035, 1103- 1104. Some property owners testified that they were afraid the new lines would have stray voltage that shock themselves and their animals. Tr. 673, 678-680, 689- 690, 716, 799, 829, 843, 876, 880- 881, 914, 963- 964, 1062, 1085, 1133, 1141-1142. Business owners and property owners testified to concerns over the effect on farm animals, growth of vegetation, crops and produce with the construction of the monopoles. Tr. 668 - 669, 846-850.

Homeowners who use well water showed concerns over the pollution of the water. Tr. 701, 1024, 1034. As an example, Carl Helman lives along Falling Springs and has concerns about the wildlife that depend on the spring. In addition, he testified to major concerns of the construction of the monopoles and the effects on the underground supports for his water supply system. Tr. 1071.

3. Disposition

The Commission has found in numerous cases that transmission lines that meet or exceed NESC requirements do not create an unreasonable risk or danger to the health and safety of the public. *Investigation on Commission Motion of the Safety of the Cabett-Wylei Ridge 500kV Transmission Line*, I.D. 236 (Sept. 18, 1981); *Application of PP&L for Approval to Locate and Construct a 138kV Transmission Line Between West Allentown and Salisbury Substations*, Docket No. A-00104160 (July 20, 1984); *Application of PP&L for Authorization to Locate and Construct its Hamlin 1348 kV Electric Transmission Line*, Docket No. A-00101826 (April 3, 1981); *Larken v. Philadelphia Electric Co.*, 39 Pa. PUC 777 (1961).

While I have considered the testimony of landowners/farmers concerned for stray voltage while they work on large tractors/equipment near the lines, and for their and their

employees' well-being, Transource witness, Mr. Silva, refuted some of their testimony regarding electromagnetic fields (EMFs). EMFs are created whenever there is a flow of electricity.

Transource St. No. 15-R, p. 7. There are two types of EMFs associated with alternating electric current—the electric field and the magnetic field. The electric field is created by the voltage, and the magnetic field is created by the flow of current. Transource St. No. 15-R, p. 7. In the United States, electric fields operate at a power frequency of 60 Hertz (Hz). Common sources of 60 Hz EMF include wiring in homes, businesses and schools, lighting, home appliances, power tools and other electrical equipment. Transource St. No. 15-R, p. 8.

EMF levels for the IEC Project are lower than recommended ranges for public exposures and the magnetic fields are within the range that people experience in their normal living and working environments. Transource St. No. 15-R, pp. 12-14.

Dr. Nancy Lee refuted testimony that EMFs cause or contribute to cancer, childhood leukemia, other childhood or adult cancers, or other chronic health problems. Transource St. No. 16-R, p. 15. Dr. Lee's conclusion is consistent with prior Commission decisions that EMFs should not be regarded as a health hazard. *See Application of Pa. Power & Light Co. Filed Pursuant to 52 Pa. Code Ch. 57*, 1994 Pa. PUC LEXIS 65, *67-*69 (Oct. 21, 1994).

Dr. H. Dwight Mercer, a veterinarian, a comparative toxicologist and an expert on EMF impacts on animals, successfully refuted testimony that horses, cows and other farm animals would suffer negative health effects from being in proximity to an IEC transmission line. Dr. Mercer explained that he has extensive experience working with animals personally, researching issues, writing papers and reviewing studies regarding potential EMF impacts on animals. Dr. Mercer's opinion in this proceeding was that there is no risk to animals as a result of EMFs from the IEC Project. Transource St. No. 17-R, p. 12.

Stray voltage is a voltage between two objects where no voltage should exist. Transource St. No. 15-R, p. 17. I am persuaded by the credible testimony of Mr. Silva that the

high voltage transmission lines should not create stray voltage problems and would not be expected for the IEC Project.

At the public input hearings, several parties expressed concerns about noise levels from the transmission lines. *See e.g.*, Tr. at 976. Transource witness Mr. Silva calculated noise levels for the transmission lines in both dry and rainy conditions. Transource St. No. 15-R, p. 16. Mr. Silva testified that sound levels for the transmission lines are below typical sound levels in a library, in a suburb at night or the low range of sounds from a light wind or light rain. Transource St. No. 15-R, p. 16. Mr. Silva's testimony is credible and supports a finding that the lines will not cause enough audible noise to create a nuisance.

At the public input hearings, several parties expressed concerns about being able to safely farm underneath the transmission lines. *See e.g.* Tr. at 914, 1674, 1754. Transource PA admitted that much of the transmission line in Franklin County parallels existing transmission infrastructure some on the same farmland owned by Mr. and Mrs. Rice for example, who are currently farming around an existing transmission line with poles. Allen and Lori Rice run a 100-acre farm with 8,000-10,000 head of cattle and 40-50 employees in Chambersburg, Franklin County. Tr. 1272-1273. Mr. and Mrs. Rice are concerned about the effect the proposed line would have going over their high-temperature composting facility. Tr. 1276. They are concerned a line routed over the facility might spark a fire and create an emergency on the property. Mr. and Mrs. Rice's employees work on large farm equipment and they are concerned with stray voltage shocking them as they work in all weather conditions. Tr. 1277-1278, 1286-1287. Mr. and Mrs. Rice are concerned their heifers may have spontaneous abortions due to higher electricity in the area they are trying to raise their animals. Tr. 1282. They are also concerned the proposed project may negatively affect their well water. Tr. 1282-1283, 1291-1292. Mr. and Mrs. Rice's tractors are steered by GPS, and they are concerned it will become unreliable if Transource builds transmission lines over their property. Tr. 1289-1290. Laura Mueller testified on September 18, 2018 that the proposed towers would be "out of scale" with the beautiful landscape in Franklin County and she expressed concerns over transmission lines sparking fires. PUC Exhibit 413

Although I can agree with Transource that farming and transmission lines have co-existed for a long time and the new transmission infrastructure will allow greater farming activity than the existing lattice infrastructure, the fact that both are going to be on Mr. and Mrs. Rice's land, where they have large equipment, a salon business, a composting/fertilizer business for organic farmers, and thousands of cows all operating under the proposed route is an unreasonable economic impact on their property. Transource St. No. 5-R, p. 2. They are using large tractors and other farming equipment under an existing transmission line and they testified regarding a transmission line's effect on the GPS systems in this equipment. I find them to be credible regarding the GPS systems. Tr. 137-138. Although Mr. Silva conducted research regarding whether GPS devices are adversely affected by EMFs from power lines and testified that the transmission lines would not affect GPS systems, these persons had direct personal knowledge using their equipment under transmission lines, and I find their testimony regarding GPS interference refutes the generalized statement of Witness Silva. Transource St. No. 15-R, pp. 22-23.

In general, I am persuaded to find that the record evidence in this proceeding demonstrates that the transmission lines, if built pursuant to the Amended Application regarding York County, which substantially uses existing poles owned by PPL except for a few miles, and the new route in Franklin County will be safely constructed and will not cause adverse effects to the health and safety of the public. However, I find additional lines can interfere with GPS systems on tractor/farming equipment and make farming around all of the lines more difficult.

D. Environmental and Economic Impact

1. Transource's Position

Transource contends that it has extensively considered each of the factors set forth in the Commission's regulations as well as the available alternative routes in selecting the proposed routes. Transource and PPL selected the Amended Application route in the IEC East Portion of the Project through York County, which has less of an environmental impact. In its original Application, Transource proposed a greenfield route for the East Portion of the IEC

Project that would extend for 15.8 miles (approximately 12.7 miles in Pennsylvania and approximately 3.1 miles in Maryland) between the proposed Furnace Run Substation and the Conastone Substation. Transource Ex. No. AA-1, Attachment 3 (East), p. 3. During the course of this proceeding and the related Maryland proceeding, Transource and PJM evaluated alternative routes and determined that one using existing PPL infrastructure with the addition of a third transformer at the Furnace Run Substation would pass the required reliability and market efficiency tests. Transource Ex. No. AA-1, Supplemental Attachment 3, p. 2. Settlement agreements were reached with various parties to amend the original Application to propose the Settlement IEC East Portion as the preferred route for the East Portion of the IEC Project. Transource Ex. No. AA-1, Supplemental Attachment 3, p. 2. Prior to submitting the Amended Application, PPL retained AECOM to conduct a Supplemental Siting Study that evaluates the originally proposed route for the East Portion and the Settlement IEC East Portion. PPL Electric St. No. AA-5, p. 4. The same methodology that was used for the siting of the original IEC East Portion was used to evaluate the Settlement IEC East Portion. PPL Electric St. No. AA-5, p. 5.

As compared to the originally proposed route for the East Portion of the IEC Project, the Settlement IEC East Portion will utilize existing infrastructure and/or ROWs, affect fewer new landowners and parcels, and impact fewer natural resources. PPL Electric St. No. AA-5, p. 5. The entire alignment for the Settlement IEC East Portion consists of parcels that currently have ROW agreements or are owned in fee by PPL. The Settlement IEC East Portion also uses existing infrastructure for the majority of the length of the line by adding a second circuit onto the existing transmission lines. PPL Electric St. No. AA-5, pp. 5-6. The four-mile Furnace Run 230 kV Transmission Line corridor is the only section of the Settlement IEC East Portion that will require widening of existing ROWs. Effectively, the Settlement IEC East Portion will minimize requirements for new ROW and potential impacts to new property owners. PPL Electric St. No. AA-5, p. 6.

The Settlement IEC East Portion will result in less overall environmental impacts relative to the originally proposed route. PPL Electric St. No. AA-5, pp. 6-7. Only four streams are present along the Furnace Run 230 kV Transmission Line corridor that will require clearing of the riparian areas compared to the eleven streams located along the originally proposed route.

The amount of wetland area crossed by the Settlement IEC East Portion is similar to that of the originally proposed route. The Settlement IEC East Portion will involve less tree clearing (19.3 acres) relative to the originally proposed route (51.7 acres), which reduces the forest fragmentation effects and potential impacts to threatened and endangered species that use forest habitat, such as T&E bat species. PPL Electric St. No. AA-5, p. 6.

The Settlement IEC East Portion already spans Muddy Creek in defined ROW areas. Only new arms and wires will be added to the existing towers, thereby minimizing the construction challenges associated with the steep slopes in this area. PPL Electric St. No. AA-5, p. 7. Access to the existing PPL transmission lines was previously identified and coordinated with landowners when the lines were rebuilt in 2012-2014. Coordination for access to the Furnace Run 230 kV Transmission Line section will be considerably less challenging than the coordination that would be required for the numerous new access roads needed for the originally proposed route. PPL Electric St. No. AA-5, p. 7.

Overall, the Settlement IEC East Portion is anticipated to have less total impact when compared to the original Proposed Route for the IEC East Project. PPL Electric St. No. AA-5, p. 7. Additionally, the Settlement IEC East Portion is unopposed by the major parties in York County – Citizens to Stop Transource York County, Maple Lawn Farms, Barron Shaw and Shaw Orchards and the York County Planning Commission.

Regarding the West portion, Transource argues its proposed route C of approximately 28.8 miles (approximately 24.4 miles in Pennsylvania and approximately 4.4 miles in Maryland) parallels existing linear features including other transmission line ROWs , highways or railroads for 42% of the total proposed length. Transource Ex. No. 1. Transource claims route C is less of a cumulative impact than alternative routes A and B. Transource St. No. 4, at 21. Crossings of wetlands will be mitigated and crossing of the Falling Springs in Chambersburg will be done at a right angles with additional stormwater permitting requirements focused on preservation of water quality level. Transource St. No. 4, at 20-21. Route C is a direct route designed to mitigate damages to orchards, farming operations and agricultural lands. *Id.* at 22.

If “no impact” were the standard, no transmission line project would ever be built because a high voltage transmission line cannot be built without causing some effects on the environment, the public and individual property owners. Transource St. No. 4-R, pp. 12-14. Such a “no build” approach would have a significant adverse effect in that it would prevent the provision of adequate, safe and reliable electric service to the public. The fact that various parties to this proceeding may have pointed out some adverse effects of the West Portion of the IEC Project and the Settlement IEC East Portion does not support rejection of the Application as amended. Merely identifying some adverse effects along a proposed line route does not justify moving the line somewhere else where it would have similar or perhaps even greater adverse effects on others. The goal of the siting process is to identify a route that minimizes impacts overall while balancing environmental impacts, human/built impacts, and engineering concerns to the extent practicable. Transource St. No. 4-R, p. 14.

After PJM selected Project 9A as the preferred solution to relieve the identified congestion constraints, Transource retained AECOM to undertake a comprehensive siting analysis to determine the most appropriate routes for the IEC Project. Transource Ex. No. 1, Attachment 3 (West and East), p. 3. The siting process evaluated paralleling existing infrastructure and ROW to the extent possible. Transource St. No. 4-R, pp. 2-4, 6-8.

Transource completed numerous environmental surveys for wetlands, threatened and endangered species, and sensitive habitats. The Siting Team identified three Alternative Routes for the IEC West Project: Alternative Route A, Alternative Route B, and Alternative Route C. Alternative Route A extends approximately 30.4 miles (approximately 23.8 miles in Pennsylvania and approximately 6.6 miles in Maryland). Alternative Route B extends approximately 31.9 miles (approximately 25.3 miles in Pennsylvania and approximately 6.6 miles in Maryland). Alternative Route C extends approximately 28.8 miles (approximately 24.4 miles in Pennsylvania and approximately 4.4 miles in Maryland). A detailed description of these three Alternative Routes was provided in Attachment 3 to Transource’s December 26, 2017 Siting Application. *See* Transource Ex. No. 1.

The Alternative Routes were compared, and a Proposed Route was selected based upon a detailed analysis and balance of impacts on the human/built environment, environmental impacts, and engineering and constructability considerations. Based on these evaluation processes, the Siting Team selected Alternative Route C as the Proposed Route for the West Portion of the IEC Project based on its determination that the cumulative environmental, human/built, engineering, and constructability impacts associated with the Proposed Route, Alternative Route C, will be significantly less than the other Alternative Routes. Transource St. No. 4, p. 21.

The Proposed Route is a more direct alignment between the Rice and Ringgold Substations, which means that it will cross fewer parcels and impact fewer landowners compared to the other alternatives. The alignment avoids the more populated sections of the Project Study Area by crossing agricultural lands adjacent to I-81 and paralleling an existing transmission line corridor south past Waynesboro as it extends into the Ringgold Substation. Additionally, the Proposed Route spans U.S. Route 30 in a commercial retail area thereby minimizing the residentially dense areas along this corridor. As a result, the Proposed Route has the fewest residences within 500 feet compared to the other alternatives. Transource St. No. 4, p. 21. It would be less impact to the environment though, if Transource and the owner of the parallel transmission facilities could have agreed like PPL and Transource did to have less of an impact on the environment and economics of the people and businesses residing below the lines.

The Proposed Route has the least amount of tree clearing and reduces the forest fragmentation effects and potential impacts to T&E species that use forest habitats such as T&E bat species. In terms of other potential T&E habitat areas, the Proposed Route would cross three natural areas in Pennsylvania that are comprised predominantly of open meadows, which can be spanned by the transmission lines therefore minimizing potential impacts on the plant or animal communities. Transource St. No. 4, p. 22.

In meeting the expectations of 52 Pa. Code § 69.3105(3)(iii), over 40% of the Proposed Route alignment for the West Project parallels either highways, railroads, or transmission line ROWs. Transource St. No. 4-R, p. 7. Specifically, the Proposed Route

parallels existing linear features for 42% of the total length of the transmission line, which may allow for the use of existing access roads. Overall, the Proposed Route is the preferred route from an engineering and constructability perspective. In addition, the Proposed Route will not interfere with any airport operations or quarries. Although the Proposed Route crosses more transmission lines, Transource will work with West Penn Power and/or MAIT to ensure proper clearances in order to safely operate and maintain the facilities. Transource St. No. 4, p. 23.

Transource argues the real estate values of properties located on or near the proposed routes will not be negatively impacted by the building of the transmission lines. In support of this argument, Transource offered the testimony of William F. Rothman, a licensed realtor, who reviewed property values of parcels that have existing transmission lines on or very close to them in York and Franklin Counties and compared those properties with properties that do not have transmission lines on or very close to them. After analyzing the sales transaction data for farms in Franklin and York Counties, Mr. Rothman opined that the existence of the HV transmission line corridor had no discernible effect on property values of farmland in either County. Mr. Rothman observed no significant difference in the range or average of the sales prices between those properties located on a HV transmission line corridor and those that were not. Mr. Rothman also indicated that he would not expect to see a decline in property values on farms if the proposed Project were built. Transource St. No. 13-R, p. 3.

Mr. Rothman also analyzed residential sales in both Counties and compared the sales prices per square foot of living area for those properties where a transmission line corridor crossed or abutted the property to those sales where a HV transmission line corridor did not cross or about the property. Based on that analysis, Mr. Rothman concluded that the existence of the HV transmission line corridor made no difference in the market value of the properties abutting the line. This was the case in the farm sales and also the residential sales analysis. Transource St. No. 13-R, p. 4.

In Mr. Rothman's opinion, the concern of diminished tax revenue as a result of the Project is extremely unlikely. The only way for a loss of property tax revenue to occur would be for the property tax assessments to be lowered. While it would be theoretically

possible for an individual property owner to file a tax appeal for a reduced assessment based on the presence of a high voltage transmission line, Mr. Rothman has not seen any instances where this has occurred. There are already a significant number of properties in both counties that have existing ROW crossings for transmission lines, including approximately 50% of the properties along the proposed route in Franklin County. Mr. Rothman has not seen any instances where those existing encroachments trigger a reduction in property assessments. Transource St. No. 13-R, pp. 4-5. Mr. Rothman also pointed out that Franklin County has not done a county-wide tax reassessment since 1961. The result is that property tax assessments are already very low and for a property owner to prove that it should be lowered further would be difficult. In fact, the assessments are so low that the Clean and Green program often used to lower property taxes on agricultural property is not in effect in Franklin County.

In York County, the vast majority of the agricultural properties are enrolled in the Clean and Green program. Clean and Green is a preferential tax assessment program that bases property taxes on use values rather than fair market values. This ordinarily results in a significant tax savings for landowners. Again, the already low assessments would make it difficult for property owners to obtain a reduction in their assessments for a negative influence factor such as a power line. Transource St. No. 13-R, pp. 4-5.

Transource also engaged David Ray Dominy to assess the potential impacts of a HV transmission line on properties located on and adjacent to the proposed IEC Project. Mr. Dominy is the Managing Director of JLL Valuation and Advisory Services – Houston. Mr. Dominy is a certified real estate appraiser and has 28 years' experience in the real estate business. See Transource St. No. 14-R, pp. 1-2.

Mr. Dominy prepared an analysis consisting of ten case studies of property values along HV transmission line corridors in the states of Pennsylvania, Connecticut, Illinois and Wisconsin. Mr. Dominy's analysis considered *actual sales transactions* of properties located along various HV transmission line corridors across the eastern and central United States. Transource St. No. 14-R, pp. 1-2. Based on Mr. Dominy's study, he concluded that there was no

impact on property values from proximity to the adjacent transmission line corridor and powerlines before or after construction. Transource St. No. 14-R, p. 16.

Mr. Dominy also reviewed published literature that spans over five decades on the effects on HV transmission lines on nearby residential and agricultural properties. From his review of the literature, Mr. Dominy concluded that more than half of the published literature has found little to no adverse impact on prices and values of the properties studied. Transource St. No. 14-R, p. 7. Mr. Dominy reviewed the Wyman and Mothorpe 2018 Study and concluded that it has no applicability to the properties at issue in this matter. The properties in the Wyman and Mothorpe 2018 Study were part of residential subdivision lots located in large communities, often near golf courses and navigable waterways. Transource St. No. 14-R, pp. 15-16. Conversely, Mr. Dominy's analysis involving agricultural properties reveals little to no impact on property values from the presence of a HV transmission line. Transource St. No. 14-R, p. 18. Mr. Dominy also revealed that the Wyman and Mothorpe 2018 Study used an automated valuation model or "AVM." Standards of professional practice of the appraisal profession recognize that AVMs are subject to a high error rate and manipulation to achieve predetermined results. Transource St. No. 14-R, p. 19. Therefore, the Wyman and Mothorpe 2018 Study should not be relied upon to form any conclusion regarding the impact of HV transmission lines on property values.

Transource admits that the ROW for the West Portion of the IEC Project will cross a portion of the cross-country track on the Falling Springs Elementary School property. In these locations where the ROW crosses the cross-country track, existing trees will have to be removed. However, the transmission line will not deter or inhibit use of the cross-country track. Transource St. No. 4-R, p. 9. Transource did examine alternative options throughout this area. However, the presence of a municipal building and residential properties in the surrounding area makes this the only open area that could reasonably be crossed through. Tr. at 2124, ln. 3-19.

Transource argues that the impact to the Falling Spring Elementary School will be limited to removing trees underneath the ROW, and the school property can continue to be used as it is today. Tr. at 2182, ln. 16-25. The presence of the transmission line will not pose a threat

to the safety of the children who attend the Falling Springs Elementary School. Transource St. No. 16-R, p. 15.

2. Protestants'/Intervenors' Positions

OCA, Citizens, and York Planning Commission take no position with regard to the environmental impact. However, STFC, Franklin County and many individual protestants and other concerned individuals testifying at site views and public input hearings testified that the environmental and economic impact would be unreasonable and unnecessary.

For example, State Representative Kristin Phillips-Hill testified she represented the 93rd Legislative District and opposed the proposed project at A-2017-2640195 because it “will not provide long-term significant benefits to our local Pennsylvania communities economically nor preserve our tremendous agrarian heritage and scenic beauty.” Tr. 1901-1904.

Ms. Warren objected to herbicide sprays on the hiking trail/cross country course next to Falling Spring Road as she is a member of the public using the trail. Tr. 1238-1239. Allen Stine testified that blasting on the hill near the cross country course would have negative impact on Falling Spring below. Tr. 1240. He also testified the construction would have a negative effect on the cross country course and his real estate located at 867, 930 and 1040 Cider Press Road, Chambersburg, next to the Chambersburg Area School District property. PUC Exhibits 153 – 158. Lantz Sourbier testified at Skelly Meadows, where seven springs converge and there are unique fly hatches supporting a blue-ribbon trout stream, which has high value that would be negatively impacted by drilling/blasting near the Spring. Tr. 1245. PUC Exhibits 136-158. Joseph Dague resides at 1296 Falling Spring Road and he is a mineralist who testified Falling Spring flows through underground passageways that consist of severely broken rock at the Carbaugh Run Marsh Creek fault a/k/a the 40 degree fault and part of a major east to west fault across Pennsylvania, the Transylvanian fault. Tr. 1247-1248. One of the seven springs runs through Mr. Dague’s basement, supplying water to his house. He is concerned the construction of Route C will contaminate his drinking water. Tr. 1248-1252. Mr. Dague collected artifacts such as arrowheads from near the stream on his property. Tr. 1249, PUC

Exhibit 145. He argues his property and the lands surrounding the seven springs is of historical and archeological significance worth preserving. Tr. 1252. Brandon Stouffer testified he lives directly across from Falling Spring, and he has a spring fed pond, for which he is concerned. Tr. 1256. The route is close to his property and he has concerns for his children attending the elementary school. Tr. 1257-1258. Colby Nitterhouse also had concerns for his children attending the elementary school. Tr. 1307. Colby Nitterhouse testified he rejected an offer of \$38,000 for a ROW that would cut through land he had hopes of developing and subdividing for his children in the future. Tr. 1307.

3. Disposition

The Commission's regulations require that a transmission line project "will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives." 52 Pa. Code § 57.76(a)(4). In determining whether a proposed route will have minimum adverse environmental impacts, the Commission will consider the impact and the efforts that have been and will be made to minimize the impact, if any, of the proposed line upon the following: (i) land use; (ii) soil and sedimentation; (iii) plant and wildlife habitats; (iv) terrain; (v) hydrology; (vi) landscape; (vii) geologic areas; (ix) historic areas; (x) scenic areas; (xi) wilderness areas; and (xii) scenic rivers. 52 Pa. Code § 57.75(e)(3). Further, the Commission will consider the availability of reasonable alternative routes in reaching a conclusion as to whether the proposed route will have minimum adverse environmental impacts. 52 Pa. Code § 57.75(e)(4). The Commission has determined that application of its regulations fulfills the Commission's duties as trustee under the Environmental Rights Amendment as set forth in *PEDF*.²⁷

In approving a utility's application for a high voltage transmission line, the Commonwealth Court has stated that a utility's route for a proposed high voltage transmission line should be approved where the record evidence shows that the utility's route selection

²⁷ See *Application of Pennsylvania Electric Company Seeking Approval to Locate, Construct, Operate and Maintain a High-Voltage Transmission Line Referred to as the Bedford North-Central City West 115 kV HV Transmission Line Project*, Docket No. A-2016-2565296 (Order entered March 8, 2018).

process was reasonable and that the utility properly considered the factors relevant to siting a transmission line. *Energy Conservation Council of Pa. v. Pa. Pub. Util. Comm'n*, 25 A.3d 440, 449 (Pa. Cmwlth. 2011). The Commonwealth Court explained that Section 57.76(a)(4) requires the applicant to demonstrate reasonable efforts to minimize adverse environmental impacts of the proposed route when compared to the available alternative routes, but the utility need not consider all possibilities. *Id.* at 448-49. Moreover, the applicant is not required to choose a route that has no adverse impacts. *Id.*

A review of potential environmental impacts should weigh these impacts against available alternatives and fully consider mitigation measures proposed by Transource and PPL. Transource and PPL have committed to taking measures to mitigate environmental impacts of the proposed transmission line in York County, including working with numerous governmental agencies that have jurisdiction over various aspects of the project, based on their combined expertise, to further mitigate the effects of the project. Transource Ex. No. AA-1, Supplemental Attachment 3, pp. 25-28; Transource Ex. No. 1, Attachment 3, p. 99. The siting processes employed by Transource and PPL represents a route selection that minimizes environmental impacts for the Alternative IEC East Portion. The original East plan would have interfered with orchard tree growth/production on Maple Lawn Farms and Shaw Orchards among other farming operations. However, there are environmental impacts in Franklin County to schools, businesses, springs/streams that are not mitigated.

Although Transource has a partial settlement with some of the parties in this case including PPL, York County Planning Commission, Citizens, Shaw Orchards, and Maple Lawn Farms, this is not a full settlement with all parties regarding all issues.

Commission policy generally promotes settlements. 52 Pa. Code § 5.231. Settlements lessen the time and expense the parties must expend litigating a case and at the same time conserve administrative resources. The Commission has indicated that settlement results are often preferable to those achieved at the conclusion of a fully litigated proceeding. 52 Pa. Code § 69.401. The focus of inquiry for determining whether a proposed settlement should be recommended for approval is not a “burden of proof” standard, as is utilized for contested

matters. *Pa. Pub. Util. Comm'n v. City of Lancaster – Bureau of Water*, Docket No. R-2010-2179103 (Opinion and Order entered July 14, 2011) (*Lancaster*). Instead, the benchmark for determining the acceptability of a settlement or partial settlement is whether the proposed terms and conditions are in the public interest. *Id.*, citing, *Warner v. GTE North, Inc.*, Docket No. C-00902815 (Opinion and Order entered April 1, 1996) (*Warner*); *Pa. Pub. Util. Comm'n v. CS Water and Sewer Assocs.*, 74 Pa. PUC 767 (1991). In addition, the Commission has held that parties to settled cases are afforded flexibility in reaching amicable resolutions, so long as the settlement is in the public interest. *Pa. Pub. Util. Comm'n v. MXenergy Elec. Inc.*, Docket No. M-2012-2201861 (Opinion and Order entered Dec. 5, 2013).

I cannot find the Alternative IEC East Portion Amended Application and Partial Settlement to be in the public interest because I find no need for the entire project. I recognize that overall, the Settlement IEC East Portion should have less total environmental impact when compared to the original Proposed Route for the IEC East Project. PPL Electric St. No. AA-5, p. 7. The Settlement IEC East Portion already spans Muddy Creek in defined ROW areas. Only new arms and wires will be added to the existing towers, thereby minimizing the construction challenges associated with the steep slopes in this area. PPL Electric St. No. AA-5, p. 7. Access to the existing PPL transmission lines was previously identified and coordinated with landowners when the lines were rebuilt in 2012-2014. Coordination for access to the Furnace Run 230 kV Transmission Line section would be considerably less challenging than the coordination that would be required for the numerous new access roads needed for the originally proposed route. PPL Electric St. No. AA-5, p. 7. Additionally, the Settlement IEC East Portion is unopposed by many but not all of the parties opposed to the East portion including: Citizens to Stop Transource York County, Maple Lawn Farm, Barron Shaw, Shaw Orchards, and the York County Planning Commission.

However, the applications were consolidated as both the East and West portions are a part of the same Project 9A and allegedly necessary together as well as portions located in Maryland in order to alleviate congestion that is now practically non-existent. I do not recommend approving in a bifurcated way just one of the applications, an amended application

or both of the applications or approving the partial settlement. There is no need for any of this project.

Route C selected as the Proposed Route for the West Portion of the IEC Project does not have less of an overall impact to the environment than would be utilizing at least in part the existing parallel route owned by West Penn Power already in existence. A separate bid by West Penn Power dubbed project 18h, was rejected by PJM during the competitive bidding process. However, from an environmental impact view, using a line and its ROW already in existence would have less environmental impact on Falling Spring, cross country course, organic farmland, vegetation, woodlands and wildlife along the West Portion of the IEC Project. Thus, I cannot find “minimum adverse environmental impact” as required by Section 57.76(a)(4). There is no evidence Transource and West Penn Power ever negotiated or agreed to any arrangement whereby West Penn Power’s existing parallel transmission system could be upgraded or utilized for an alternative route. I am persuaded by the business representatives, Superintendent, Quincy Township Supervisors, and landowners to find the environmental impact in Franklin County is not minimized by the Western route.

Regarding economic impact, I find that the Kauffman’s farm at 4220 and 4297 Olde Scotland Road, Chambersburg will be adversely affected economically by the Route C, West line as it will cut through their farming fields along I-81. PUC Exhibits 54-70. Tr. 1153-1165. Route C - West at mile marker 19 on I-81, will reduce the value of Fred Byers’ rental property as the easement goes two feet over the farmhouse, and will overlap a current easement held by West Penn Power for its overhead line. Tr. 1168-1169. PUC Exhibits 71-83. Benedict’s Produce will sustain economic impact if the Route C West line is constructed at 1883 Ragged Edge Road, Chambersburg, as the proposed route including monopoles goes through the middle of his vegetable/produce growing field. Tr. 1173-1187. PUC Exhibits 82-97. The owners of Benedict’s Produce will likely sustain economic loss as a result of construction ruining their ability to plant, grow and harvest fruits and vegetables, which they in turn sell to 100 Giant Foods grocery stores. Tr. 1185-1196, PUC Exhibits 82-97.

The soils that will be affected by the project represent one of the largest contiguous areas of high-quality soil in Pennsylvania. Tr. 752-760. Todd Sommer, owner of Sommer Springs Farms and a supervisor for a utility company, has personally experienced utility companies bringing in their own crew after promising to hire locally. Tr. 610. The Owl's Club is affected by an eminent domain application in Franklin County regarding a 38-acre property used for trout fishing and other recreational activities. Tr. 1682-1683. The Owl's Club requests the Commission veto the project or at least require Transource to propose a "piggy-backing" of the existing infrastructure already on the property. Tr. 1684, PUC Exhibits 404-407.

"The Pricing of Power Lines: a Geospatial Approach to Measuring Residential Property Values," authored by David Wyman and Christopher Mothorpe, is a study/report published in the *American Real Estate Society*, a trade journal, Volume 40, Issue No. 1 of 2018, which used a sample of 5,455 vacant lots sold in Pickens County, South Carolina, uncovering substantive pricing discounts of 44.9% for properties adjacent to power lines, and a pricing discount of 17.9% for non-adjacent vacant properties up to 1,000 feet from the power lines. Tr. 1681-1691, PUC Exhibit 408. I share the same concern as Attorney Clint Barkdoll, who testified at a public input hearing as an individual, expressing concern that appraisers will rely upon the studies' findings and landowners "will rush into the County tax assessment office and file a tax appeal" based on this study, Tax Assessment Boards and the Courts are going to be required to grant lower tax assessment values, and they will "all pay for that in higher taxes and/or cuts to programs." Tr. 1686-1689.

James Quesenberry, Jr. is a York realtor who sells lots, farms, and residential homes and is aware that peoples' perceptions of transmission lines has an effect on sale ability and values. Tr. 125-126. Most homeowners testified to valid concerns that the lines will bring their property value down. Tr. 668-710, 820-1134. Patrice Nitterhouse is a real estate developer who testified to concerns as to how the project will negatively affect the value of her property and her business as a developer. Tr. 762- 763. Colby Nitterhouse rejected a \$38,000 offer for a ROW through his property as he intends to subdivide and develop it for his children in the future. Tr. 1310, PUC Exhibits 192-197. Carol A. Pugh from Franklin County asked how the project will affect her property value and the answer she received was, "there's too many variables to

know.” Tr. 798. Georgiana Horst, co-owner of Horst Seed Hybrids in Chambersburg, testified that her farm became a Bicentennial Farm in 2004 by the Department of Agriculture. This project will diminish the historical value of the property and Historical Bus Tours will stop traveling through her farm affecting her business. Tr. 881.

234. Property owners in Franklin County with preserved land subject to conservation easements object to the project. Tr. 672-674, 850-851. Business owners and property owners testified to concerns over the effect on farm animals, growth of vegetation, crops and produce with the construction of the monopoles. Tr. 668-669, 846, 847, 850. Property owners and citizens of York and Franklin counties testified to concerns of how the power lines will affect local businesses and economic growth. Tr. 682-694.

Roy Cordell is concerned he will not be able to access fields on his property for farming hay and other crops during construction of monopoles and lines on his 99+ acre property due to a “zig-zag” pattern on the maps. Tr. 1321-1324, PUC Exhibits 199-215. Homeowners David Siegrist, Sharla Dunlap, Kristyn Martin and Ashley Hospelhorn on Hidden Valley Road, Waynesboro are concerned of reductions in the appraised value of their homes as well as of losing trees and a viewshed of a neighboring farmland and they have health concerns about residing so close to a second transmission line behind the road’s cul-de-sac especially because there is already one existing. Tr. 1360-1376, PUC Exhibits 264-286. Sharla Dunlap owns property that does not show up on Transource’s map of the project and the line will be approximately 300 feet from her back porch. Tr. 826. Franklin County is known for its agriculture, wildlife recreation, scenery, animal habitats, and historical features like the Underground Railroad and the IEC transmission lines will affect the tourist attraction to Franklin County. Tr. 943 - 946. Heather Stine’s family of Franklin County, rents land to a local farmer who is certified organic with economic/environmental concerns over the spraying on the land that could affect revenue. Tr. 1079. Many homeowners have valid concerns over the damage of fertile land being compacted or destroyed, trees, and crops when it comes to the construction and maintenance of the towers. Tr. 672-1020.

Franklin County is rich with history and testified to concerns of historical artifacts and sites being destroyed with the construction of the monopoles. Tr. 669- 670. The proposed

power line will be less than 250 feet from Ruth Frech's house. Tr. 841. Fred Rice is on the Guilford Township Zoning Board and they have a zoning law that a building cannot be over 50 feet high. He points that the towers are going to be 130 feet. Tr. 877. Georgiana Horst, co-owner of Horst Seed Hybrids, has no other retirement plan available to her with the exception of her farm that is her business. Tr. 881. Travis Schooley, a chief water operator, engineering coordinator and grant writer for Quincy Township, has not received any information, map update, or permits, regarding the project, as they should according to the local ordinances. Tr. 888. Heather Stine's family owns land on the proposed route where it is believed to be a Native American Indian Burial site. Tr. 1078. Leslie Bowman will be affected by this project and already has monopoles on their property. Transource disregarded her request to use a paved ROW to drive to the poles and drove the entire length of her wheat growing crop field. Tr. 1109.

The project would adversely impact the Chambersburg School District's Tim Cook Memorial Cross Country Course, which is used by both the middle school and high school boys and girls running teams. Chambersburg hosts many cross country meets from August – October that may have as many as 1,000 people and 300-400 cars to park at a meet. Tr. 1223. The proposed power line would be on the Falling Springs Elementary School property parallel to and along the edge of the Tim Cook Memorial Cross Country Course, a 5000 kilometer/ 3.1 mile course. Tr. 1225. Sarah Herbert is the building principal at Sinking Springs Elementary School. Tr. 1226. Principal Herbert testified approximately 36 faculty and 275 students attend Falling Springs Elementary School on a daily basis when school is in session. Tr. 1277. Ed Peters is the Director of Facilities who testified the power line would be approximately 700 feet from the elementary school building according to Transource's map. Tr. 1228-1230. Superintendent Padasak and the school board received some concerns from parents about the proposed line. Tr. 1230-1233. Members of the public also run and walk the cross country course. Tr. 1235, 1238-1239. Construction on the line between the months of August through October would interfere with the cross country season and would require the school district to relocate the activity at a cost of at least \$1,000 to bus the student-athletes elsewhere. Tr. 1236-1237. Thirty-one student-athletes, parents, and alumni from the cross country teams submitted letters dated in November 2018 opposing the project. Nitterhouse Exhibit 1.

Skelly Meadows is Falling Spring fed and has unique fly hatches, which support wild trout in high-value, blue-ribbon trout stream. Tr. 1245-1246. Transource intends to drill for monopoles directly above the springs along Falling Spring Road. Tr. 1257. The springs could be damaged by blasting or changing of the rock formations underneath and by defoliation around the springs. Tr. 1248-1257. The trout in the Falling Spring will be negatively affected if the Spring is defoliated as lack of foliation will likely result in higher water temperatures and trout do not tolerate warm water. Tr. 1255.

Jason Forrester farms organic crops such as corn, hay, soybeans on Allan Stine's property, which is adjacent to the cross country course. Tr. 1259-1261. If Transource's project were to cross Allan Stine's property, that could cause Mr. Forrester to lose organic certification as Transource's construction trucks could carry contaminants onto the fields. Tr. 1262-1265.

Allen and Lori Rice run a 100-acre farm with 8,000-10,000 head of cattle and 40-50 employees in Franklin County. Tr. 1272-1273, PUC Exhibits 162-191. Mr. and Mrs. Rice are concerned about the effect the proposed line would have going over their high-temperature composting facility. Tr. 1276. Mr. and Mrs. Rice's employees work on large farm equipment and they are concerned with stray voltage shocking them as they work in all kinds of weather conditions. Tr. 1277-1278, 1286-1287, PUC Exhibits 162-191. Mr. and Mrs. Rice are concerned their heifers may have spontaneous abortions due to higher electricity in the area they are trying to raise their animals. Tr. 1282. Mr. and Mrs. Rice are concerned the proposed project may negatively affect their well water. Tr. 1282-1283, 1291-1292. Mr. and Mrs. Rice's tractors are steered by GPS, and they are concerned it will become unreliable if Transource builds transmission lines over their property. Tr. 1289-1290.

Daniel Long is concerned the new transmission line parallel to an existing line will interfere with farming crops and will have a negative economic impact on the value of his property at 9949 Wayne Highway, Waynesboro. Tr. 1377-1381, PUC Exhibits 287-291. Laura Mueller testified on September 18, 2018 that the proposed towers would be "out of scale" with the beautiful landscape in Franklin County and she expressed concerns over transmission lines sparking fires. PUC Exhibit 413.

Weighing the testimonies and exhibits of those testifying regarding economic impact, I am persuaded to find that Transource has not minimized economic impact by the siting of the route in Franklin County.

E. Shelter Petitions

As the proposed situation of the shelter/buildings at substations in question are not reasonably necessary for the convenience or welfare of the public because there is no need for the project, the two petitions for exemptions of zoning regulations for buildings/shelters will also be denied. 53 P.S. § 10619.

F. Eminent Domain Applications

Similarly, as no need is found for the siting of the transmission towers/lines over the properties of the landowners subject to eminent domain applications, pursuant to 5 Pa.C.S. § 1511, the project is not necessary or proper for the benefit of the public. Accordingly, the pending eminent domain applications will also be denied.

V. CONCLUSION

For all of these aforementioned reasons, as need within the meaning of 52 Pa. Code § 57.76(a)(1) has not been proven, I recommend that the Applications be denied. The Alternative IEC East Portion Amended Application and Partial Settlement is not in the public interest as no need has been proven for Project 9A. Section 57.76(a)(1) is a threshold standard, a hurdle that must be cleared before other factors are considered. Transource Pennsylvania, LLC has not met its burden of proving that the proposed Independence Energy Connection Project is in compliance with applicable statutes and regulations providing for the protection of the natural resources of the Commonwealth or that the proposed Independence Energy Connection Project would have a minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives. Pa. Const. art. I, § 27; 52 Pa. Code §§ 57.76(a)(3) and (4).

As there is no need for the project, the siting applications, shelter petitions for zoning exemptions and eminent domain applications must also be denied. Finally, I recommend that the Commission issue a Rule to Show Cause directing Transource Pennsylvania LLC to show cause why the certificate for public convenience issued to Transource should not be rescinded as there is no need for the transmission service delineated in the CPC.

VI. CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the subject-matter of and the parties to this proceeding by virtue of Chapter 11 of the Public Utility Code, 66 Pa. C.S. § 1101 *et seq.*, and 15 Pa. C.S. § 511(c).

2. The proponent of a rule or order in any Commission proceeding has the burden of proof, 66 Pa. C.S. § 332, and Transource, as the Applicant, has the burden of proving its case by a preponderance of the evidence, or evidence which is more convincing than the evidence presented by the other parties. *Se-Ling Hosiery v. Margulies*, 364 Pa. 45, 70 A.3d 854 (1950); *Samuel J. Lansberry, Inc. v. Pa. Pub. Util. Comm'n*, 578 A.2d 600 (Pa. Cmwlth. 1990).

3. Any finding of fact necessary to support an adjudication of the Commission must be based upon substantial evidence, which is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion. *Mill v. Pa. Pub. Util. Comm'n*, 447 A.2d 1100 (Pa. Cmwlth. 1982); *Edan Transp. Corp. v. Pa. Pub. Util. Comm'n*, 623 A.2d 6 (Pa. Cmwlth. 1993), 2 Pa. C.S. § 704. More is required than a mere trace of evidence or a suspicion of the existence of a fact sought to be established. *Norfolk & W. Ry. V. Pa. Pub. Util. Comm'n*, 489 Pa. 109, 413 A.2d 1037 (1980); *Erie Resistor Corp. v. Unemployment Com. Bd. Of Review*, 166 A.2d 96 (Pa. Super. 1960); *Murphy v. Pa. Dept. of Pub. Welfare, White Haven Ctr.*, 480 A.2d 382 (Pa. Cmwlth. 1984).

4. The “burden of proof” is composed of two distinct burdens: the burden of production and the burden of persuasion. *Hurley v. Hurley*, 754 A.2d 1283 (Pa. Super. 2000). The burden of production, also called the burden of producing evidence or the burden of coming forward

with evidence, determines which party must come forward with evidence to support a particular proposition. This burden may shift between the parties during the course of a trial. If the party (initially, this will usually be the complainant, applicant, or petitioner, as the case may be) with the burden of production fails to introduce sufficient evidence the opposing party is entitled to receive a favorable ruling. That is, the opposing party would be entitled to a compulsory nonsuit, a directed verdict, or a judgment notwithstanding the verdict. Once the party with the initial burden of production introduces sufficient evidence to make out a *prima facie* case, the burden of production shifts to the opposing party. If the opposing party introduces evidence sufficient to balance the evidence introduced by the party having the initial burden of production, the burden then shifts back to the party who had the initial burden to introduce more evidence favorable to his position. The burden of production goes to the legal sufficiency of a party's case. *Id.*

5. The Applicant, Transource Pennsylvania, LLC, has not met its burden of proving, pursuant to Section 332(a) of the Public Utility Code, that the Application for a Certificate of Public Convenience and Authority to exercise the power of eminent domain for the construction and installation of the facilities known as the West Portion of the Independence Energy Connection Project, including the proposed Rice Substation and the Rice-Ringgold 230 kV Transmission Line, is necessary or proper for the service, accommodation, convenience or safety of the public. 66 Pa. C.S. § 332(a); 66 Pa. C.S. § 1101 *et seq.*

6. Pursuant to 52 Pa. Code § 57.76(a), the Commission's order, with its opinion, if any, will either grant or deny the application, in whole or in part, as filed or upon the terms, conditions or modifications, of the location, construction, operation or maintenance of the line as the Commission may deem appropriate. The Commission will not grant the application, either as proposed or as modified, unless it finds and determines as to the proposed HV line:

- (1) That there is a need for it.
- (2) That it will not create an unreasonable risk of danger to the health and safety of the public.

(3) That it is in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth.

(4) That it will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives.

7. The Applicant, Transource Pennsylvania, LLC, has not met its burden of proving that the proposed West Portion of the Independence Energy Connection Project is needed, pursuant to Section 57.76(a)(1) of the Commission's regulations. 52 Pa. Code § 57.76(a)(1).

8. The Applicant, Transource Pennsylvania, LLC, has not met its burden of proving that the proposed West Portion of the Independence Energy Connection Project is in compliance with applicable statutes and regulations providing for the protection of the natural resources of the Commonwealth. Pa. Const. art. I, § 27; 52 Pa. Code § 57.76(a)(3).

9. The Applicant, Transource Pennsylvania, LLC, has not met its burden of proving that the proposed West Portion of the Independence Energy Connection Project would have a minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives. 52 Pa. Code § 57.76(a)(4).

10. Joint Applicants, Transource Pennsylvania, LLC, and PPL Electric Utilities Corporation, have not met their burden of proving, pursuant to Section 332(a) of the Public Utility Code, that the Application for a Certificate of Public Convenience and Authority to exercise the power of eminent domain for the construction and installation of the facilities known as the alternative configuration of the East Portion of the Independence Energy Connection Project, including the proposed Furnace Run Substation, the re-conducted Otter Creek-Conastone and Graceton-Manor 230 kV Transmission Lines, and the two new 2-mile segments connecting those re-conducted lines to the proposed Furnace Run Substation, is

necessary or proper for the service, accommodation, convenience or safety of the public. 66 Pa. C.S. § 332(a); 66 Pa. C.S. § 1101 *et seq.*

11. Joint Applicants, Transource Pennsylvania, LLC, and PPL Electric Utilities Corporation, have not met their burden of proving that the proposed alternative configuration of the East Portion of the Independence Energy Connection Project is needed, pursuant to Section 57.76(a)(1) of the Commission's regulations. 52 Pa. Code § 57.76(a)(1).

12. Joint Applicants, Transource Pennsylvania, LLC, and PPL Electric Utilities Corporation, have not met their burden of proving that the proposed alternative configuration of the East Portion of the Independence Energy Connection Project is in compliance with applicable statutes and regulations providing for the protection of the natural resources of the Commonwealth. Pa. Const. art. I, § 27; 52 Pa. Code § 57.76(a)(3).

13. Joint Applicants, Transource Pennsylvania, LLC, and PPL Electric Utilities Corporation, have not met their burden of proving that the proposed alternative configuration of the East Portion of the Independence Energy Connection Project would have a minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives. 52 Pa. Code § 57.76(a)(4).

14. Neither Transource nor PPL Electric Utilities Corporation have sustained their burden of proving that they are entitled to the siting and construction of the Pennsylvania portion of the IEC Project 230 kV Transmission Lines in portions of York or Franklin Counties consistent with the applications as amended.

15. The Public Utility Code requires every public utility to furnish and maintain adequate, efficient, safe, and reasonable service and facilities, and to make all such repairs, changes, alterations, substitutions, extensions, and improvements in or to such service and facilities as shall be necessary or proper for the accommodation, convenience, and safety of its patrons, employees, and the public. Such service also shall be reasonably continuous and

without unreasonable interruptions or delay. Such service and facilities shall be in conformity with the regulations and orders of the commission. 66 Pa. C.S. § 1501.

16. Pursuant to 52 Pa. Code § 57.75(e), relevant evidence includes but is not limited to the following matters:

- (1) The present and future necessity of the proposed HV line in furnishing service to the public.
- (2) The safety of the proposed HV line.
- (3) The impact and the efforts which have been and will be made to minimize the impact, if any, of the proposed HV line upon the following:
 - (i) Land use.
 - (ii) Soil and sedimentation.
 - (iii) Plant and wildlife habitats.
 - (iv) Terrain.
 - (v) Hydrology.
 - (vi) Landscape.
 - (vii) Archeologic areas.
 - (viii) Geologic areas.
 - (ix) Historic areas.
 - (x) Scenic areas.
 - (xi) Wilderness areas.
 - (xii) Scenic rivers.
- (4) The availability of reasonable alternative routes.

VII. ORDER

THEREFORE,

IT IS RECOMMENDED:

1. That the Application of Transource Pennsylvania, LLC, filed pursuant to 52 Pa. Code Chapter 57, Subchapter G, For Approval of the Siting and Construction of the Proposed Pennsylvania Portion of the West Portion of the Independence Energy Connection Project in Portions of Franklin County, Pennsylvania, at Docket No. A-2017-2640200, be denied.
2. That the Joint Amended Application of Transource Pennsylvania, LLC and PPL Electric Utilities Corporation filed pursuant to 52 Pa. Code Chapter 57, Subchapter G, for Approval of the Siting and Construction of the Proposed Pennsylvania Portion of the Alternative Configuration of the East Portion of the Independence Energy Connection Project in Portions of York County, Pennsylvania, at Docket No. A-2017-2640195, be denied.
3. That the Petition of Transource Pennsylvania, LLC for a Finding that a Building to Shelter Control Equipment at the Furnace Run Substation in York County, Pennsylvania, is Reasonably Necessary for the Convenience or Welfare of the Public, at Docket No. P-2018-3001878, be denied.
4. That the Petition of Transource Pennsylvania, LLC for a Finding that a Building to Shelter Control Equipment at the Rice Substation in Franklin County, Pennsylvania, is Reasonably Necessary for the Convenience or Welfare of the Public, at Docket No. P-2018-3001883, be denied.
5. That the Applications of Transource Pennsylvania, LLC, for Approval to Acquire a Certain Portion of Lands of Various Landowners in York and Franklin Counties,

Pennsylvania for the Siting and Construction of the 230 kV Transmission Lines associated with the Independence Energy Connection – East and West Projects as Necessary or Proper for the Service, Accommodation, Convenience or Safety of the Public, at the following docket numbers be denied.

| | | |
|----|----------------|--|
| 1 | A-2018-3001881 | Douglas E. & Martha J. Rohrer |
| 2 | A-2018-3001886 | Dale A. & Barbara D. J. Torbert |
| 3 | A-2018-3001898 | Yost Family Farms, LP |
| 4 | A-2018-3001902 | Kent E. & Nancy H. Blevins |
| 5 | A-2018-3001904 | Gregory J. & Melanie A. Goss |
| 6 | A-2018-3001906 | Michael Hecner, Eva Hecner, Stephen M. Hecner and Theresa M. Norris |
| 7 | A-2018-3001907 | Robert B. Burchett, Judy K. Burchett, Thomas L. Burchett, and Stacy L. Burchett, t/d/b/a Maple Springs Farms Partnership |
| 8 | A-2018-3001922 | Mervin S. & Gladys O. Miller |
| 9 | A-2018-3001923 | Amos L. & Elizabeth K. Esh |
| 10 | A-2018-3001925 | J. Ross & Norma R. McGinnis |
| 11 | A-2018-3001929 | McGinnis Limited Partnership |
| 12 | A-2018-3001932 | Chilcoat and Peters, Inc. |
| 13 | A-2018-3001933 | Gregory M. & Kristina L. Wilt |
| 14 | A-2018-3001936 | Burton Family Limited Partnership |
| 15 | A-2018-3001943 | James R. McGinnis |
| 16 | A-2018-3001944 | George W. Treadway, Jr. and Madelyn K. Treadway |
| 17 | A-2018-3001954 | Richard D. Good, Cathy M. Good, Rodger D. Good & Peggy L. Good |
| 18 | A-2018-3001956 | Glenn J. Bradley |
| 19 | A-2018-3001957 | Jonathan R. Hash, and Gregory J. & Melanie A. Goss |
| 20 | A-2018-3001958 | Thomas R. Krell, Jr. & April R. Krell |
| 21 | A-2018-3001960 | D. Arthur Grove and David Richard Grove |
| 22 | A-2018-3001961 | RGRG Partners |
| 23 | A-2018-3001962 | R. Andrew & Deborah E. Macklin |
| 24 | A-2018-3001963 | Francis & Mary Eileen Boone |
| 25 | A-2018-3001964 | Barley Farms LP |
| 26 | A-2018-3001965 | Stephen J. & Dolores E. Krick |

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|----|----------------|---|
| 27 | A-2018-3001966 | Shane K. & Kristi L. Taylor |
| 28 | A-2018-3001967 | Jefferson L. Bracey, Sr. & Laura R. Bracey |
| 29 | A-2018-3001968 | Leonard M. & Sandra J. Traynor |
| 30 | A-2018-3001982 | Barbara D. & David W. Anderson, C. Kathleen and William M. Tompkins, and M. Kathryn and Stephen M. Judy |
| 31 | A-2018-3001984 | E. Daniel & Diane M. Neff |
| 32 | A-2018-3001985 | Maple Lawn Farms, Inc |
| 33 | A-2018-3001986 | Randall C. Stewart, Jr. and Peggy A. Stewart |
| 34 | A-2018-3001989 | John J. & Carol A. Hamilton |
| 35 | A-2018-3001999 | Lois M. White |
| 36 | A-2018-3002012 | Jane M. Zaiger |
| 37 | A-2018-3002022 | GBR Lincoln Highway Limited Liability Company, Chambersburg Holdings, LP and WLR Chambersburg, LLC |
| 38 | A-2018-3002028 | Summit Partners, LLC |
| 39 | A-2018-3002031 | Daryl Harry Bender and Donna Irene Bender Widney |
| 40 | A-2018-3002032 | Roy B. Biesecker and Susan L. Biesecker |
| 41 | A-2018-3002037 | Allan A. Stine |
| 42 | A-2018-3002041 | John A. Steiger and Allison E. Steiger |
| 43 | A-2018-3002046 | Leonard H. Kauffman and Mary P. Kauffman |
| 44 | A-2018-3002047 | Ivan D. Horst and Ellen M. Horst |
| 45 | A-2018-3002048 | Guilford Water Authority |
| 46 | A-2018-3002051 | DC Farms, LLC |
| 47 | A-2018-3002052 | Donald L. Martin and Denise M. Martin |
| 48 | A-2018-3002053 | William K. Nitterhouse and Diane R. Nitterhouse |
| 49 | A-2018-3002054 | Wayne E. Lehman & Donald R. Lehman as Trustees of Credit Shelter Trust established under Item II of the Last Will of Harvey M. Lehman (the "Harvey M. Lehman Credit Shelter Trust") & Wayne E. Lehman, Donald R. Lehman, Jane L. Martin, Kenneth L. Lehman & Lester E. Lehman |
| 50 | A-2018-3002055 | Chambersburg Area School District |
| 51 | A-2018-3002057 | Lemma & O'Connor Investors LLC |
| 52 | A-2018-3002061 | Daniel S. Long |
| 53 | A-2018-3002066 | Mary K. Henry, Deceased, D. Yvonne Frank, Marion Carmack, Charles W. Henry (Letters Testamentary) |

| | | |
|----|----------------|--|
| 54 | A-2018-3002067 | Chambersburg Mall Realty LLC, Chambersburg CH LLC, and Chambersburg Nassim LLC |
| 55 | A-2018-3002069 | Richard L. Leshner and Agnes Marie Leshner |
| 56 | A-2018-3002072 | Charles Stamy Fox |
| 57 | A-2018-3002074 | Marlin Lester Martin and Carrie Rosemarie Martin |
| 58 | A-2018-3002075 | Owls Club, Inc. |
| 59 | A-2018-3002103 | Lowe's Home Centers, Inc. |
| 60 | A-2018-3002104 | Ivan D. Horst and Ellen M. Horst |
| 61 | A-2018-3002107 | Roy M. Cordell and Emma L. Cordell |
| 62 | A-2018-3002108 | Patriot Federal Credit Union |
| 63 | A-2018-3002111 | Edna S. Fox and Charles A. Fox |
| 64 | A-2018-3002125 | Myron J. & Fern L. Miller |
| 65 | A-2018-3002128 | Allen W. Rice and Lori C. Rice |
| 66 | A-2018-3002140 | Colby S. Nitterhouse and Leah A. Nitterhouse |
| 67 | A-2018-3002147 | Willis M. Leshner Partnership |
| 68 | A-2018-3002163 | Kyle F. & Kelly A. Schindel |
| 69 | A-2018-3002169 | Rodney A. Meyer and Karen I. Benedict |
| 70 | A-2018-3002232 | Lynn D. Etter and Mary W. Etter |
| 71 | A-2018-3002238 | Margaret L. Mower |
| 72 | A-2018-3002251 | Elam H. Reiff and Mary Z. Reiff |
| 73 | A-2018-3002310 | J. Norman & Bonna Jane Diller |
| 74 | A-2018-3002312 | Douglas L. Straley and Nellie M. Straley |
| 75 | A-2018-3002329 | Michael D. Frederick and Tammy Jo Salter |
| 76 | A-2018-3002331 | Joshua L. Diller and Nicole M. Diller |
| 77 | A-2018-3002332 | Michael D. Frederick and Tamra D. Frederick and Tammy Jo Salter and Roderick C.B. Salter |

6. That the dockets at Docket Nos. A-2017-2640195, A-2017-2640200, P-2018-3001883, P-2018-3001878, A-2018-3001881, A-2018-3001886, A-2018-3001898, A-2018-3001902, A-2018-3001904, A-2018-3001906, A-2018-3001907, A-2018-3001922, A-2018-3001923, A-2018-3001925, A-2018-3001929, A-2018-3001932, A-2018-3001933, A-2018-3001936, A-2018-3001943, A-2018-3001944, A-2018-3001954, A-2018-3001956, A-2018-3001957, A-2018-3001958, A-2018-3001960, A-2018-3001961, A-2018-3001962, A-

2018-3001963, A-2018-3001965, A-2018-3001966, A-2018-3001967, A-2018-3001968, A-2018-3001982, A-2018-3001984, A-2018-3001985, A-2018-3001986, A-2018-3001989, A-2018-3001999, A-2018-3002012, A-2018-3002022, A-2018-3002028, A-2018-3002031, A-2018-3002032, A-2018-3002037, A-2018-3002041, A-2018-3002046, A-2018-3002047, A-2018-3002048, A-2018-3002051, A-2018-3002052, A-2018-3002053, A-2018-3002054, A-2018-3002055, A-2018-3002057, A-2018-3002061, A-2018-3002066, A-2018-3002067, A-2018-3002069, A-2018-3002072, A-2018-3002074, A-2018-3002075, A-2018-3002103, A-2018-3002104, A-2018-3002107, A-2018-3002108, A-2018-3002111, A-2018-3002125, A-2018-3002128, A-2018-3002140, A-2018-3002147, A-2018-3002140, A-2018-3002147, A-2018-3002163, A-2018-3002169, A-2018-3002232, A-2018-3002238, A-2018-3002251, A-2018-3002310, A-2018-3002312, A-2018-3002329, A-2018-3002331, and A-2018-3002332 be marked closed.

7. That a rule to show cause be issued directing Transource Pennsylvania, LLC, to show cause why its Certificate of Public Convenience at Docket No. A-2017-2587821 should not be revoked as the specific Independence Energy Connection Project a/k/a 9A Project for which the certificate was granted is deemed neither necessary nor needed in Pennsylvania.

Dated: December 22, 2020

/s/
Elizabeth H. Barnes
Administrative Law Judge

APPENDIX A

Glossary of Acronyms/Abbreviations

| | |
|------------------------------|--|
| ALJ | Administrative Law Judge |
| Alternative IEC East Portion | East Portion of the IEC Project |
| APSRI | AP South Reactive Interface |
| ASA | Agricultural Security Areas |
| BG&E | Baltimore Gas & Electric |
| BMPS | Best Management Practices |
| Code | Pennsylvania Public Utility Code |
| Commission | Pennsylvania Public Utility Commission |
| EMFs | Electromagnetic fields |
| EMP | Energy Master Plan |
| EPA | Environmental Protection Agency |
| EP Act 2005 | Energy Policy Act of 2005 |
| ERO | Electric Reliability Organization |
| FERC | Federal Energy Regulatory Commission |
| GPS | Global positioning system |
| HQ | High-Quality |
| HV | High voltage |
| IEC Project | Independence Energy Connection Project |
| IMM | PJM's Independent Market Monitor |
| MD PSC | Maryland Public Service Commission |
| MLS | Multiple Listing Service |
| MPC | Municipalities Planning Code |

| | |
|------------|---|
| NERC | North American Electric Reliability Corporation |
| NESC | National Electric Safety Code |
| OCA | Office of Consumer Advocate |
| OSHA | Occupational Safety and Health Administration |
| PaDEP | Pennsylvania Department of Environmental Protection |
| PFBC | Pennsylvania Fish and Boat Commission |
| PHMC | Pennsylvania Historic Museum Commission |
| PJM | PJM Interconnection LLC |
| PPL | PPL Electric Utilities Corporation |
| ROW | Right-of-way |
| RPPTF | Regional Planning Process Task Force |
| RTEP | Regional Transmission Expansion Plan |
| RTO | Regional Transmission Organization |
| STFC | Stop Transource Franklin County |
| Transource | Transource Pennsylvania, LLC |
| YCPC | York County Planning Commission |

APPENDIX B
CONTENTS OF EVIDENTIARY RECORD

Transcripts

| | | |
|------------------------|------------------------------------|------------|
| March 13, 2018 | Initial Prehearing Conference | pp. 1-87 |
| May 9, 2018, 1:00 p.m. | Public Input Hearing (York County) | pp. 88-208 |

Witnesses:

Hon. Kristin Phillips-Hill
Hon. Stan Saylor
Stephen Snell
Trisha Bowman
Christopher B. Reilly
David R. Grove
Jay McGinnis
James Quesenberry
David Glenn
Glenn Shaw
Kent Blevins
J. Ross McGinnis
Michal Ann Boyd
Alan Taylor
John Waltermeyer
Gilbert Malone
Aimee O'Neill
Kay L. Taylor
Samuel Taylor
Jane Spangler
Robert Waltermeyer
A. Dean Moser
Thomas Knaub
Colleen Savin
Hugh McPherson
Deborah Stubblefield
Hannah Stubblefield
Peggy Stewart
Christine Rogers
Karen Baltzer
Carl Marrara
Harold Burton

May 9, 2018, 6:00 p.m.

Public Input Hearing (York County)

pp. 209-311

Witnesses:

Daniel Moser
Richard Bisker, Jr.
Constance Anderson
Tim Jordan
Raymond Lins
Rachel Lins
Jody Leighty
Mike Jones
Jason Wolfe
Jack Wolfe
Paul McPherson
Thomas Krell
Joseph Slezak
Kimberly Slezak
Hope Slezak
Marty Nabholz
Jonathan Hash
Lynda Manning
Lynda Wagman
Emanuel K. Esh
Scott Seiple
Nicholas Spagnola
Cathy Good

May 14, 2018, 1:00 p.m.

Public Input Hearing (York County)

pp. 312-485

Witnesses:

Jeff Grove
Allen E. Hoffman
Jeffrey L. Heindel
Kimberly J. Carrick
Susan Worrall-Murphy
David Saxman
Rene A. Shuman
Donna Walter Downs
Kristina Wilt
Douglas M. Wolfgang
Randall C. Stewart, Jr.
Robert Biester
Melanie Goss

Judith P. Hawkins
David Hawkins
Dolores Krick
Patricia Hankins
Amy Donahue
Edward Franco
Sean Cully
Patricia McCandless
Theodore Corcoran
Henry Sommer
Randall Stewart, Jr.
Roger B. Wilson
Shane Taylor

May 14, 2018, 6 p.m. Public Input Hearing (York County) pp. 486-647

Witnesses:

Patricia Conner
Bernie Kephart
Nancy Gladden
Barbara Anderson
Courtney Dettinger
Susan Kelly
Douglas McGinnis
Ann Lavin
David Good
Benjamin Otte
Janet Archer
Dale R. Saxman
Emily Amberman
Patricia B. Bowden
Rebecca Campbell
Patricia Hankins
Johneva Mickey
James McFarland
Lori Skinner
Vincent Skinner

May 22, 2018, 1:00 p.m. Public Input Hearing (Franklin County) pp. 648-765

Witnesses:

Douglas Michael Wolfgang
Michael Simmonds
Willa Weller Kaal
Dennis Brechbill
Brian Brechbill
Leonard Kauffman

Mary Kauffman
Patricia J. Beard
Karen Benedict
Debra Wolford
Doreen Rice
Kim Calimer
Lois White
Kathleen M. Rollins
Debbie Ballard
Jerry Bonfiglio
Kathleen Kauffman
Stephen P. Bucher
Brendan Finucane
Brechyn Chace
Spencer Pheil
Keryn Newman
Debra Kase
Douglas Cook
L. Michael Ross
Katie Hess
Roderick Salter
Patrice Nitterhouse

May 22, 2018, 6:00 p.m.

Public Input Hearing (Franklin County)

pp. 766-893

Witnesses:

Jim Shuster
Janet Ward
Timothy Carr
Carol A. Pugh
Carl E. Pugh
Stephanie Reed
Ellen Engle
Dan Long
Michelle Henninger
Bonnie Shockey
Sharla Dunlap
Eugene P. Macri, Jr.
Ruth Frech
Roy Cordell
Warren Hurt
Eric Burkholder
Leslie Sease
Kerry Bumbaugh
Don A. Aines
Jane Lawler
Fred Rice

Georgiana Horst
Theodore J. Guarriello
Travis Schooley
Dennis Zimmerman

May 23, 2018, 1:00 p.m. Public Input Hearing (Franklin County) pp. 894-991

Witnesses:

Lewis Thomas
Linda Mower
Debbi Toney
Jeffrey Cook
Patrick Bethas
Aaron Kauffman
Eileen Houska
Zygmunt Zielinski
Lowell Martin
Janet Pollard
Kristyn Martin
Ashley Hospelhorn
Thomas Ramsey
Ronald Swartz
Michael Hayduk
Robin Mull
Dawryn Benedict
Sandra Grotberg
Kerry Bumbaugh

May 23, 2018, 6:00 p.m. Public Input Hearing (Franklin County) pp. 992-1149

Witnesses:

Hon. Rob Kauffman
Lantz Sourbier
Laurie Fay Viozzi
Edwin Hill, Jr.
Milton Engle
Jane Glenn
Edwin J. Glenn
Shawn Corwell
Chris Rudyk
Terry E. Ward
Peter Whalen
David Clark
Melodie Anderson-Smith
Barbara Moran

Carl Helman
Heather Stine
Sherwin Brechbill
Anne Finucane
Leonard Lindenmeyer
Michele Jansen
Richard Leshner
Leslie J. Bowman
Don Clapper
Kristyn Martin
Brandy Gift
Dirk Goertz
Brandon Stouffer
Jack Martin
Alexander Black
Ellen Black
Alanna Hartzok

May 29, 2018

Site View (Franklin County)

pp. 1150-1299

Witnesses:

Leonard Kauffman
Aaron Kauffman
Fred Byers
Denton Benedict
Barry Baker
Jim Eby
Eric Burkholder
Brad Warner
Dr. Joseph Padasak, Superintendent of Chambersburg School District
Sara Herbert
Ed Peters
Carl Barton
Allan Stine
Lantz Soubier
Joseph Dague
Robert Bashore
Brandon Stouffer
Joseph Forrester
Richard Leshner
Lori Rice
Allen Rice
Brian Brechbill

May 30, 2018

Site View (Franklin County)

pp. 1300-1418

Witnesses:

Colby Nitterhouse
Emma Cordell
Roy Cordell
Michael Cordell
Karen Benedict
Ruth Frech
Darwyn Benedict
David Siegrist
Sharla Dunlap
Kristyn Martin
Ashley Hospelhorn
Daniel Long
Allen Rice
Brian Brechbill
Janet Pollard

June 1, 2018

Site View (York County)

pp. 1420-1563

Witnesses:

John Waltermeyer
Barry Baker
Bradley Waltermeyer
Shane Taylor
Rick Lawrence
Courtney Dettinger
Patty Hankins
Mervin Miller
Barron Shaw
Kathy Good
Richard Good
Wade Gobrecht
Dale Saxman
Deborah Macklin
Randy Stewart
Dolores Krick
Barb Anderson
Carole Kudrick
Trisha Bowman
Nancy Gladden
Michael Scott Males
Hugh McPherson
Gregory Goss
J. Ross McGinnis
Jay McGinnis

Gregory Sterner
Patrick Simon
Barry Shenk
Glenn Shaw

July 9, 2018 Second Prehearing Conference pp. 1564-1644

Site View Photographs

September 18, 2018, 1:00 p.m. Public Input Hearing (Franklin County) pp. 1645-1782

Witnesses:

Robert Kauffman
Robert Russell
Nancy Gaal
Aaron Kauffman
Mary Kauffman
Leilani Brechbill
Martha Dudley Keller
Clint Barkdoll, Esquire
Debra Wolford
Michelle Jansen
Anne Finucane
Patrice Nitterhouse
Leah Nitterhouse
Karen Benedict
Kim Calimer
Laura and Liz Mueller
Sharon Holoviak
Michele Shapiro
Leonard Kauffman
Michelle Henninger
Spencer Pheil
Brechyn Chase
Bob Faubel
Alex Sharpe
Dawn Keller
David Keller
Kristyn Martin
Kerry Bumbaugh
Dennis Zimmerman

September 18, 2018, 6:00 p.m. Public Input Hearing (Franklin County) pp. 1783 – 1891

Witnesses:

Brian Brechbill

Carol Pugh
Bob Ziobrowski
Leonard Lindenmeyer
Kalman Markus
Doreen Rice
Debra Kase
Clayton Rotz
Lori Rice
Sharla Dunlap
Brendan Finucane
Scott Crist
Jannet Polard
Peter Whalen
Dirk Goetz
Darwyn Benedict
Kate Boyd
Angela Cornell
Denzil Heckman
Alexander Black
Tanya Nitterhouse

September 20, 2018, 1:00 p.m.

Public Input Hearing (York County)

pp. 1892-1991

Witnesses:

Rep. Kristin Phillips-Hill
Sandra Harbold
Stephen Snell
Deborah E. Macklin
Kathleen Tompkins
John Waltermeyer
Jane Spangler
Trisha Bowman
James McGinnis
Amy Donahue
Jason Wolfe
Kristina Wilt
Henry Sommer
Peggy Stewart
Randall Stewart
Gregory Goss
Patti Hankins
Hugh McPherson
Hope Slezak
Diana Creagh
Patricia McCandless

Elizabeth DeVita
James Ross McGinnis

September 20, 2018, 6:00 p.m. Public Input Hearing (York County) pp. 1992-2069

Witnesses:

Stan Saylor
Cathy Good
Glenn Shaw
Aimee O'Neill
Leonard Traynor
Dolores Krick
Paul McPherson
Kimberly Slezak
Todd Sommer
Nancy Gladden
Courtney Dettinger
Jeffrey Rutz
David Good
Thomas Krell

February 21, 2019 Evidentiary Hearing (Day 1) pp. 2070-2242

Witnesses:

Allan Stine

| | |
|-----------------|---|
| Brian D. Weber | Transource PA Stmts. 1-East, 1-West, 1-R, 1-RJ, Exh. BDW 1R – 9R |
| Barry A. Baker | Transource PA Stmts. 4-East, 4-West, 4-R, 4-RJ, Exh. BB-1R- 6R |
| Kent M. Herzog | Transource PA Stmts. 5-East, 5-West, 5-R, 5-RJ |
| Steven P. Stein | Transource PA Stmts. 11-R, Exh. SPS-1R and 2R |
| Thomas Schaffer | Transource PA Stmts. 6-East, 6-West, 6-R, 6RJ |
| Gobrecht | York County Planning Commission, Stmt. 1, 1-SR, Exh. SR-1 – SR-3. |
| Dolores Krick | Citizens Stmt. SR-1 (Exh. 1-5 admitted 2/26/19) |
| Dettinger | Citizens Stmt. SR-3 |
| Sasowsky | Stop Transource Franklin County Stmt. 1, 1-SR, Exh. 1-3 |
| Dague | Stop Transource Franklin County Stmt. 2 |

February 22, 2019 Evidentiary Hearing (Day 2) pp. 2243-2360

Witnesses:

| | |
|----------------|---|
| Steven Herling | Transource PA Stmts. 3- East, 3-West, 7-R, 7-RJ Exh. SRH-1R – SRH-6R SRH-7RJ -SRH-10RJ |
| Timothy Horger | Transource PA Stmts. 8-R, 8-RJ Exh. TH-1R – TH-12R, TH-13RJ |
| Shadab Ali | PPL Stmt. 1-SR |

February 25, 2019 Evidentiary Hearing (day 3) pp. 2361-2523

Witness:

| | |
|----------------|--|
| Len Lindenmyer | Lindenmyer Stmt. 1 |
| Kamran Ali | Transource PA Stmt. 2, 2-R, 2-RJ |
| James Cawley | Transource PA Stmt. 9-R, 9-RJ |
| Judy Chang | Transource PA Stmt. 10-R, 10-RJ, Exh. 14 |
| Scott J. Rubin | OCA Stmt. 1, 1-SR, Exh. 2 |

February 26, 2019 Evidentiary Hearing (day 4) pp. 2524-2656

Witnesses:

| | |
|----------------------|--|
| Peter J. Lanzalotta | OCA Stmts. 2, 2-SR, Exh. PJL-1 – 14; PJL-SR-1 – SR3. |
| Geoffrey C. Crandall | OCA Stmts. 3, 3-SR, Exh. 3-1 – 3-4, GCC-SR1 – SR4 |
| Keith S. Yamatani | Transource PA Stmt. 12-R, 12-RJ, Exh. KSY-1R – 4R |
| Timothy Horger | Transource PA |
| Hash | Citizens witness Hash - Surrebuttal |
| Barron Shaw | Shaw – Direct and Surrebuttal, Exh. 1-4, BTS 2-1 |

February 27, 2019 Evidentiary Hearing (day 5) pp. 2657-2759

Witnesses:

| | |
|---------------------|--|
| Richard L. Lesh | Lesh Exhibit No. 1 |
| Nancy C. Lee | Transource PA Stmt. 16-R, 16 RJ |
| H. Dwight Mercer | Transource PA Stmt. 17-R, 17-RJ |
| James Michael Silva | Transource PA Stmt. 15-R, Exh. JMS-1R – 4R |
| David Ray Dominy | Transource PA Stmt. 14-R, Exh. DRD-1R |
| William F. Rothman | Transource PA Stmt. 13-R, 13-RJ, Exh. WFR-1R |

Transource PA Exhibits regarding Condemnation Applications in York County Exhibits 20-53; Transource PA Exhibits regarding Condemnation Applications in Franklin County Exhibits 54-99, admitted into evidence on 2/27/19.

CROSS EXHIBITS

| <u>Sponsoring Party</u> | <u>Description</u> | <u>Exhibit Numbers</u> | <u>Date Admitted</u> |
|-------------------------|--|------------------------|----------------------|
| OCA | Map, Furnace Run | Cross Exhibit 1 | 2/21/19 |
| | Map, Rice-Ringgold | Cross Exhibit 2 | 2/21/19 |
| | OCA-III-01 | Cross Exhibit 3 | 2/21/19 |
| | Foley Letter | Cross Exhibit 4 | 2/22/19 |
| | OCA-XVII-01 | Cross Exhibit 5 | 2/22/19 |
| | OCA-IV-14 | Cross Exhibit 6 | 2/22/19 |
| | 2015 Report | Cross Exhibit 7 | 2/26/19 |
| | 2017 Report | Cross Exhibit 8 | 2/26/19 |
| | 2018 Report | Cross Exhibit 9 | 2/26/19 |
| | OCA-V-04 | Cross Exhibit 10 | 2/26/19 |
| | OCA-X-07 | Cross Exhibit 11 | 2/26/19 |
| | IMM Comments | Cross Exhibit 12 | 2/26/19 |
| October 28, 2019 | Prehearing Conference | | pp. 2760-2781 |
| May 20, 2020 | Further Telephonic Prehearing Conference | | pp. 2782-2806 |
| July 9, 2020 | Evidentiary Hearing (day 8) | | pp. 2807-2984 |

Witnesses:

| | |
|------------------------|---|
| Barry A. Baker | Transource PA St. No. AA-5 |
| Mathew Baranoski | PPL St. No. AA-2 |
| Brian D. Weber | Transource PA St. No. AA-1 |
| Timothy Horger | Transource PA St. No. AA-3 |
| Steven R. Herling | Transource PA St. No. AA-2 |
| Edward G. McGavran III | Franklin County St. No. 1, Exhibit FC-1, Exhibit FC-4 |