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September 15, 2023

VIA EMAIL

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street, 2nd Floor North
Harrisburg, PA 17105-3265

Re: Letter Of Notification Of PPL Electric Utilities Corporation, Filed Pursuant To 52 Pa. Code Chapter 57 Subchapter G, For Approval To Rebuild The Existing Double-Circuit Stanton-Summit #3 And #4 230 kV Transmission Lines Connecting the Stanton 230 kV Substation And A Two-Pole Turn Structure That Are Respectively Located In Luzerne And Lackawanna Counties, Pennsylvania
Docket No. A-2022-3037374

Dear Secretary Chiavetta:

Attached for filing on behalf of PPL Electric Utilities Corporation is the Main Brief and Appendices A (Proposed Findings of Fact), B (Proposed Conclusions of Law), and C (Proposed Ordering Paragraphs) in the above-referenced proceeding.

Copies will be provided as indicated on the Certificate of Service.

Respectfully submitted,

Garrett P. Lent

GPL/dmc
Enclosures

cc: The Honorable Mark Hoyer (*w/attachment*)
The Honorable Darlene Heep (*w/attachment*)
Certificate of Service

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing has been served upon the following persons, in the manner indicated, in accordance with the requirements of 52 Pa. Code § 1.54 (relating to service by a participant).

VIA E-MAIL ONLY

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Date: September 15, 2023

Garrett P. Lent

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Letter Of Notification Of PPL Electric Utilities Corporation, Filed Pursuant To 52 Pa. Code Chapter 57 Subchapter G, For Approval To Rebuild The Existing Double-Circuit Stanton-Summit #3 And #4 230 kV Transmission Lines Connecting the Stanton 230 kV Substation And A Two-Pole Turn Structure That Are Respectively Located In Luzerne And Lackawanna Counties, Pennsylvania	:	Docket No. A-2022-3037374

MAIN BRIEF OF
PPL ELECTRIC UTILITIES CORPORATION

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I. INTRODUCTION

PPL Electric Utilities Corporation ("PPL Electric" or "Company") submits this Main Brief in support of its request for the Pennsylvania Public Utility Commission's ("Commission") approval to rebuild the existing double-circuit Stanton-Summit #3 and #4 230 kilovolt ("kV") Transmission Lines connecting the Stanton 230 kV Substation ("Stanton Substation") and a two-pole turn structure (Structures 56275-N-47514(L)/56274-N47518(R)) located approximately 1.4 miles north of the Summit 230-69 kV Substation ("Summit Substation") that are respectively located in Luzerne and Lackawanna Counties, Pennsylvania (the "Stanton-Summit Project" or the "Project").[1] The proposed Project will address reliability, asset health and safety concerns related to the deteriorated condition of the COR-TEN® lattice towners of PPL Electric's Stanton-Summit #3 and #4 230 kV Transmission Lines.

The Project contemplates the replacement and rebuilding of these existing COR-TEN® lattice towers to address structural reliability concerns associated with the experience of "pack-out rust" in many of the joints of the subject lattice towers. The experience of pack-out rust in the joints of the subject towers has accelerated asset health concerns and the rate at which the subject towers were expected to reach end-of-life. The Project is required to address asset health conditions and reliability concerns related to the deteriorated condition of the COR-TEN® lattice towers on the Stanton-Summit #3 and #4 230 kV Transmission Lines. The prevalence of "pack-out rust"[2] in many of the joints of the subject lattice towers diminishes structural integrity and increases the risk of system failures that could negatively impact public safety and affect service to approximately

[1] PPL Electric filed the "*Letter Of Notification Of PPL Electric Utilities Corporation, Filed Pursuant To 52 Pa. Code Chapter 57 Subchapter G, For Approval To Rebuild The Existing Double-Circuit Stanton-Summit #3 And #4 230 kV Transmission Lines Connecting the Stanton 230 kV Substation And A Two-Pole Turn Structure That Are Respectively Located In Luzerne And Lackawanna Counties, Pennsylvania*" (the "Letter of Notification" or "LON").

[2] "Pack-out rust" or "pack rust" is a form of localized corrosion typical of steel components that develop a crevice into an open atmospheric environment, which results in rust packing between conjoined steel components. PPL Electric St. 1, at p. 6, n.1. Pack-out rust accelerates the deterioration of asset health and can result in shearing off bolts, loss of structural integrity, members disconnecting from lattice towers, and tower failure. *Id.*

34,968 PPL Electric customers. The Project will immediately and fully resolve the deteriorated condition of the existing structures on a long-term basis by removing the existing COR-TEN® lattice towers and replacing them with steel monopoles. The Project will also resolve reliability contingencies that would occur should the subject transmission lines fail.

Importantly, no other entity or landowner protested the Joint Application other than the Office of Consumer Advocate ("OCA"). The OCA's protest and testimony was limited to contesting the need for the project.[3]

Accordingly, PPL Electric requests that Deputy Chief Administrative Law Judge Mark A. Hoyer and Administrative Law Judge Darlene Heep (the "ALJs") and the Commission (a) find that the Project, as set forth in the Letter of Notification and associated testimony and exhibits, satisfies the requirements of the applicable statutes and regulations, and (b) approve the Letter of Notification.

II. BACKGROUND AND HISTORY OF THE PROCEEDING

PPL Electric is a public utility that provides electric distribution, transmission, and provider of last resort services in Pennsylvania subject to the regulatory jurisdiction of the Commission. PPL Electric furnishes electric service to approximately 1.4 million customers throughout its certificated service territory, which includes all or portions of twenty-nine counties and encompasses approximately 10,000 square miles in eastern and central Pennsylvania. PPL Electric is a "public utility" and an "electric distribution company" as defined in Sections 102 and 2803 of the Pennsylvania Public Utility Code, 66 Pa.C.S. §§ 102, 2803. PPL Electric is also a "public utility" as defined by the Federal Power Act, 16 U.S.C. § 824(e), a transmission owner, and a member of PJM Interconnection, L.L.C. ("PJM").

[3] *See* PPL Electric Exhibit JBL-1R.

This proceeding was initiated on December 27, 2022, when PPL Electric filed the above-captioned Letter of Notification with the Commission. In the Letter of Notification, PPL Electric requested Commission approval to rebuild the existing double-circuit Stanton-Summit #3 and #4 230 kV Transmission Lines connecting the Stanton Substation and a two-pole turn structure (Structures 56275-N-47514(L)/56274-N47518(R)) located approximately 1.4 miles north of the Summit Substation that are respectively located in Luzerne and Lackawanna Counties, Pennsylvania.

On December 27, 2022, the Commission issued a Secretarial Letter acknowledging receipt of the Letter of Notification.

On January 25, 2023, the OCA filed a Notice of Intervention and Public Statement.

On February 8, 2023, the OCA filed a Protest.

The Commission issued an Initial Call-In Telephonic Prehearing Conference Notice for the above-captioned dockets on February 24, 2023. The ALJs were assigned to preside over the above-captioned proceedings.

Also on February 24, 2023, the ALJs issued a Prehearing Conference Order.

On March 14, 2023, PPL Electric filed a proof of publication and affidavit showing that notice of the Letter of Notification was published in The Scranton Times Tribune on February 24, 2023 and March 3, 2023, and in The Reading Eagle on February 26, 2023 and March 5, 2023.

On April 12, 2023, PPL Electric and the OCA filed their respective Prehearing Memoranda.

On April 14, 2023, the Prehearing Conference was held as scheduled. There, PPL Electric, OCA, and the ALJs agreed upon a procedural schedule, among other things.

On April 25, 2023, the ALJs issued a Prehearing Order and Hearing Notice, scheduling the Evidentiary Hearings for August 14-15, 2023, in-person in Harrisburg, Pennsylvania.

On May 24, 2023, PPL Electric served the Direct Testimony and exhibits of Joseph B. Lookup and Christopher Szmodis.

On July 7, 2023, OCA served the Direct Testimony of Rao Konidena.

On July 20, 2023, OCA served an Errata to the Direct Testimony of Rao Konidena.[4]

On August 3, 2023, PPL Electric served the Rebuttal Testimony and exhibits of Joseph B. Lookup and Christopher Szmodis.

On August 9, 2023, Counsel for PPL Electric requested that the ALJs cancel the first day of Evidentiary Hearings on August 14, 2023.

On August 11, 2023, the ALJs issued a Hearing Cancellation Notice, cancelling the Evidentiary Hearing scheduled for August 14, 2023.

Also on August 11, 2023, the ALJs issued a Hearing Type Change Notice, converting the August 15, 2023 in-person Evidentiary Hearing to telephonic.

On August 15, 2023, the Telephonic Evidentiary Hearing was held as scheduled.

PPL Electric hereby files this Main Brief, as directed by the Prehearing Order issued on April 25, 2023, as well as the Commission's regulations.

[4] This Errata was the version of Mr. Konidena's testimony that was admitted into the record. For purposes of this Main Brief, references to "OCA St. 1" refer to this version of Mr. Konidena's testimony.

III. LEGAL STANDARDS

A. BURDEN OF PROOF

PPL Electric is seeking Commission approval of the rebuild of an existing overhead high voltage ("HV") 230 kV transmission line. Section 332(a) of the Public Utility Code ("Code")[5] provides that the party seeking a rule or order from the Commission has the burden of proof in that proceeding. It is axiomatic that "[a] litigant's burden of proof before administrative tribunals as well as before most civil proceedings is satisfied by establishing a preponderance of evidence which is substantial and legally credible."[6] The preponderance of evidence standard requires proof by a greater weight of the evidence.[7] This standard is satisfied by presenting evidence more convincing, by even the smallest amount, than that presented by another party.[8]

Additionally, any finding of fact necessary to support an adjudication of the Commission must be based upon substantial evidence.[9] Substantial evidence is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.[10] Although substantial evidence must be "more than a scintilla and must do more than create a suspicion of the existence of the fact to be established,"[11] the "presence of conflicting evidence in the record does not mean that substantial evidence is lacking."[12]

If the applicant sets forth a *prima facie* case, then the burden shifts to the opponent.[13] Establishing a *prima facie* case requires either evidence sufficient to make a finding of fact permissible or evidence to create a presumption against an opponent which, if not met, results in

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[5] 66 Pa.C.S. § 332(a).
[6] *Samuel J. Lansberry, Inc. v. Pa. PUC*, 578 A.2d 600, 602 (Pa. Cmwlth. 1990).
[7] *Commonwealth of Pennsylvania v. Williams*, 732 A.2d 1167 (Pa. 1999).
[8] *Brown v. Commonwealth of Pennsylvania*, 940 A.2d 610, 614 n.14 (Pa. Cmwlth. 2008).
[9] *Met-Ed Indus. Users Group v. Pa. PUC*, 960 A.2d 189, 193 n.2 (Pa. Cmwlth. 2008) (citing 2 Pa.C.S. § 704).
[10] *Borough of E. McKeesport v. Special/Temporary Civil Service Commission*, 942 A.2d 274, 281 (Pa. Cmwlth. 2008).
[11] *Kyu Son Yi v. State Board of Veterinarian Medicine*, 960 A.2d 864, 874 (Pa. Cmwlth. 2008) (citation omitted).
[12] *Allied Mechanical and Elec., Inc. v. Pennsylvania Prevailing Wage Appeals Board*, 923 A.2d 1220, 1228 (Pa. Cmwlth. 2007) (citation omitted).
[13] *McDonald v. Pennsylvania Railroad Co.*, 36 A.2d 492 (Pa. 1940).

an obligatory decision for the proponent. Once a *prima facie* case on a point has been established, if contrary evidence is not presented, there is no requirement that the applicant produce additional evidence in order to sustain its burden of proof.[14] Critically, under Section 332(a) of the Public Utility Code, the party proposing a Commission rule or order has the burden of proof. Thus, while PPL Electric ultimately has the burden of proof to show that the Project is needed, the OCA bears the burden of proof as to the reasonableness of its suggested alternatives to the Project, as well as the burden of proof to show that the Commission should require additional analysis of its purported alternatives on the part of PPL Electric beyond what the Commission's regulations require.[15]

B. STANDARDS FOR APPROVAL OF A LETTER OF NOTIFICATION

Pursuant to Section 1501 of the Code, an electric utility has a statutory obligation to provide safe, adequate, and reliable service to its customers.[16] Here, the proposed Project simply seeks to rebuild the existing Stanton-Summit #3 and #4 Transmission Lines connecting the Stanton Substation and a two-pole turn structures located approximately 1.4 miles north of the Summit Substation

In order to grant an application for the rebuild of an HV transmission line, the Commission must generally find and determine the following as to the proposed 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.

[14] *District of Columbia's Appeal*, 21 A.2d 883 (Pa. 1941). *See, e.g.*, *Application of Pennsylvania Power & Light Co.*, Docket Nos. A-110500F0196, *et al.*, 1994 Pa. PUC LEXIS 65 (Initial Decision issued Oct. 21 1994) (holding that the company met its burden to prove that there was an immediate need for the reinforcement of the power supply where the need for the project was uncontested and no party presented any evidence challenging the need for the project).
[15] *See* 66 Pa.C.S. § 332(a); *NRG Energy, Inc. v. Pa. PUC*, 233 A.3d 936, 950-951 (Pa. Cmwlth. 2020), *appeal denied*, 244 A.3d 346 (Pa. 2021) ("If NRG did not bear a burden to present something to support its methodology, it would be difficult, if not impossible, for [utility] to respond with evidence explaining why the alternative should not be accepted").
[16] 66 Pa.C.S. § 1501.

> (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 the available technology and the available alternatives.[17]

The Code does not define "need"; however, Pennsylvania courts have recognized that there is a need for reliable regional electric service and transmission systems.[18] Moreover, the General Assembly has recognized the importance of ensuring the reliability of electric transmission systems, and the provision of sufficient electrical power at affordable rates. Section 2802(12) of the Code states that "[r]eliable electric service is of the utmost importance to the health, safety and welfare of the citizens of the Commonwealth. Electric industry restructuring should ensure the reliability of the interconnected electric system by maintaining the efficiency of the transmission . . . system."[19] Section 2802(20) of the Code provides, *inter alia*, that ensuring the reliability of electric service depends on conscientious maintenance of transmission systems, and that electric system operators shall establish inspection, maintenance, repair and replacement standards.[20] Finally, Section 2803 of the Code defines "reliability" as:

> Includes adequacy and security. As used in this definition, "adequacy" means the provision of sufficient generation, transmission and distribution capacity so as to supply the aggregate electric power and energy requirements of consumers, taking into account scheduled and unscheduled outages of system facilities; and "security" means designing, maintaining and operating a system so that it can handle emergencies safely while continuing to operate.[21]

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[17] 52 Pa. Code § 57.76(a) (emphasis added).
[18] *Stone v. Pa. PUC*, 162 A.2d 18, 19-21 (Pa. Super. 1960); *Dunk v. Pa. PUC*, 232 A.2d 231, 234-35 (Pa. Super. 1967).
[19] 66 Pa.C.S. § 2802(12).
[20] 66 Pa.C.S. § 2802(20).
[21] 66 Pa.C.S. § 2803.

Indeed, "need" is a broad concept that is not limited to "engineering need."[22] Similarly, a utility is not required to show a project is "absolutely necessary."[23]

Indeed, an electric utility can demonstrate that there is "a need" for a transmission line project under 52 Pa. Code § 57.76(a)(1) where the project resolves violations of the utility's internally developed planning and reliability criteria.[24] The Commission has recognized as much and approved several of PPL Electric's HV transmission line filings related to pack-out rust.[25]

Finally, the plain language of 52 Pa. Code § 57.76(a)(1) states that an electric utility must demonstrate there is "a" need for a transmission line project.[26] "A" need is an indefinite article, meaning that it lacks specificity for the proceeding noun, *i.e.*, "need"; conversely, "the" is a definite

[22] *Pennsylvania Power & Light Co. v. Pa. PUC*, 696 A.2d 248, 250 (Pa. Cmwlth. 1997).
[23] *Hess v. Pa. PUC*, 107 A.3d 246, 262 (Pa. Cmwlth. 2014), *appeal denied*, 632 Pa. 678, 117 A.3d 1282 (Pa. 2015) 262 (holding that "[t]he Commission did not err when it rejected Protestants' proposed 'absolute necessity' standard.").
[24] *See Hess v. Pa. PUC*, 107 A.3d 246, 262-263 (Pa. Cmwlth. 2014), *appeal denied*, 632 Pa. 678, 117 A.3d 1282 (Pa. 2015); *Application of PPL Electric Utilities Corporation filed Pursuant to 52 Pa. Code Chapter 47, Subchapter G, for Approval of the Siting and Construction of the North Lancaster Honey Brook # 1 & # 2 138/69 kV Transmission Lines in Lancaster County, Pennsylvania*, Docket Nos. A-2014-2430565, *et al*., 2015 Pa. PUC LEXIS 77, at *49 (Initial Decision issued Feb. 27, 2015) *adopted without modification* (Order entered Apr. 23, 2015) ("*PPL North Lancaster-Honey Brook*") (holding that a project which alleviates violations of an electric utility's own planning criteria provides sufficient evidence to support a finding of need).
[25] *Application Of PPL Electric Utilities Corporation, Filed Pursuant To 52 Pa. Code Chapter 57 Subchapter G, For Approval to Rebuild The Existing Summit-Lackawanna #1 And #2 230 kV Transmission Lines Connecting the Summit 230-69 kV Substation and The Lackawanna 500-230-69 kV Substation in Lackawanna County, Pennsylvania*, Docket Nos. A-2022-3030969, *et al.* (Initial Decision issued Nov. 22, 2022) *became final without further Commission action* (Order entered Dec. 23, 2022) ("*Summit-Lackawanna*"); *Letter of Notification of PPL Electric Utilities Corporation for Approval to Reconstruct a Section of the Saegers-Elimsport/Clinton-Elimsport 230 kV Transmission Line and the Saegers-Elimsport/Saegers-Clinton 230 kV Transmission Line located in Brady, Clinton, and Washington Townships, Lycoming County, Pennsylvania*, Docket No. A-2022-3034224 (Order entered Oct. 27, 2022); *Letter of Notification of PPL Electric Utilities Corporation for Approval to Reconstruct the Manor-Millwood 230 kV Transmission Line Located in Conestoga, Manor, and Pequea Townships, Lancaster County, Pennsylvania*, Docket No. A-2021-3029689 (Order entered Mar. 10, 2022)*; Letter of Notification of PPL Electric Utilities Corporation for approval to reconstruct the Elimsport-Lycoming #2 and #3 230 kV Transmission Line located in Williamsport Borough and Armstrong and Washington Townships, Lycoming County, Pennsylvania*, Docket No. A-2021-3029267 (Order entered Feb. 24, 2022); *Letter of Notification of PPL Electric Utilities Corporation for Approval to Reconfigure and Reconstruct the Montour-Milton 230 kV Transmission Line and the Milton-Sunbury 230 kV Transmission Line and to Relocate Approximately one-mile of the Montour-Columbia 230 kV Transmission Line Located in Montour, Northumberland, Snyder, and Union Counties, Pennsylvania*, Docket No. A-2021-3024033 (Order entered Aug. 5, 2021).
[26] 52 Pa. Code § 57.76(a)(1).

article, meaning that the proceeding noun, *i.e.*, "need," would be specific.[27] It is well settled that a public utility must decide in the first instance what facilities are needed and where to locate those facilities; unless the public utility acted in an arbitrary or capricious manner, its decision should remain undisturbed.[28] The Commission is not a "super board of directors" that acts to second guess a utility.[29] Therefore, so long as a utility demonstrates there is "a" need for a given project, it has satisfied the requirement of 52 Pa. Code § 57.76(a)(1).

With respect to health and safety under 52 Pa. Code § 57.76(a)(2), the Commission has held in numerous cases that transmission lines that meet or exceed the National Electric Safety Code ("NESC") requirements do not create an unreasonable risk of danger to the health and safety of the public.[30]

With respect to natural resources and the environment under 52 Pa. Code § 57.76(a)(3), the Pennsylvania Supreme Court has concluded that Article I, Section 27 of the Pennsylvania Constitution, *i.e.*, the Environmental Rights Amendment,[31] placed Pennsylvania's public natural resources in trust and named the Commonwealth as its trustee, to conserve and maintain those resources for the benefit of all people, including future generations.[32] In carrying out these obligations, the Commonwealth, and its agencies, may subject the individual rights of citizens to

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[27] *See Patricca v. Zoning Bd. of Adjustment*, 590 A.2d 744, 751 (Pa. 1991) ("The word 'the' is a definite article and is used . . . before a noun, with specifying or particularizing effect, as opposed to the indefinite or generalizing force of the indefinite article 'a' or 'an'") (citations omitted).

[28] *See e.g., Lower Chichester Township v. Pa. PUC*, 119 A.2d 674 (Pa. Super. 1956); *Abbington Electric Co. v. Pa. PUC*, 198 A. 901 (Pa. Super. 1938).

[29] *Metropolitan Edison Co. v. Pa. PUC*, 437 A.2d 76, 80 (Pa. Cmwlth. 1982) ("The Commission is not empowered to act as a super board of directors for the public utility companies of this state.") (citations omitted); *See also Pa. PUC, et al. v The Columbia Water Co.*, Docket Nos. R-2008-2045157, *et al.*, 2009 Pa. PUC LEXIS 1423 (Opinion and Order entered May 28, 2009).

[30] *See Application of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa. Code Chapter 57, Subchapter G, for Approval of the Siting and Construction of the Pennsylvania Portion of The Proposed Susquehanna-Roseland 500 kV Transmission Line*, Docket Nos. A-2009-2082652, *et al.*, 2010 Pa. PUC LEXIS 434, at *166 (Order entered Feb. 12, 2010); *Application of PP&L for Approval to Locate and Construct a 138 kV Transmission Line Between West Allentown and Salisbury Substations*, Docket No. A-00104160 (Order entered July 20, 1984); *Application of PP&L for Authorization to Locate and Construct its Hamlin 138 kV Electric Transmission Line*, Docket No. A-00101826 (Order entered Apr. 3, 1981); *Larken v. Philadelphia Electric Co*., 39 Pa. PUC 777 (1961).

[31] PA. CONST. art. I, § 27.

[32] *Pa. Environmental Defense Foundation v. Com. Of Pa.*, 161 A.3d 911 (Pa. 2017) ("*PEDF*").

clean air, pure water, and to the preservation of natural, scenic, historic, and esthetic values to reasonable regulation.[33]

The Commission has determined that its existing rules and policy satisfy its obligations under the Environmental Rights Amendment as described in *PEDF*.[34] The Commission further explained in *Penelec* that:

> The Commission's regulatory scheme for high-voltage line transmission siting cases, therefore, provides for a robust, evidence-based deliberative process that provides due process for all interested parties. The Commission, consistent with our role as a fiduciary responsible for the preservation of the Commonwealth's natural resources, and consistent with PEDF, acts with prudence, loyalty and impartiality when adhering to these regulations. In this manner, we fulfill our responsibility to protect the public's natural resources from depletion or degradation, while also allowing legitimate development that improves the lot of Pennsylvania's citizenry, as the Pennsylvania Supreme Court recognized in *Robinson Township v. Com. of Pa.*, 623 Pa. 564, 658, 83 A.3d 901, 958 (2013).[35]

Generally, the Commission has found compliance with the applicable environmental statutes and regulations where the applicant agrees to obtain any and all necessary environmental permits prior to construction and to comply with any conditions on those permits during construction.[36] Importantly, however, the applicant is not required to receive all necessary permits

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[33] *PEDF*, at 931; *see also 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 Nos. A-2016-2565296, *et al*., at pp. 12-14 (Order entered March 8, 2018) ("*Penelec*").

[34] *Penelec*, at pp. 13-14; *see also* 52 Pa. Code §§ 69.3105, 69.3106.

[35] *Penelec*, p. 14.

[36] *See, e.g., Joint Letter of Notification of Mid-Atlantic Interstate Transmission, LLC And PPL Electric Utilities Corporation For The Martins Creek-Siegfried #2 230 Kilovolt Transmission Line Loop to Klecknersville 230 Kilovolt Substation Project in Moore Township, Northampton County, Pennsylvania*, Docket Nos. A-2022-3036551, *et al*. (Initial Decision issued June 21, 2023) *adopted without further Commission action* (Final Order entered July 26, 2023) ("*Klecknersville Order*"); *Application of Pennsylvania Electric Company For Approval to Locate and Construct the Bedford North-Osterburg East 115 kV HV Transmission Line Project Situated in Bedford and East St. Clair Townships, Bedford County, Pennsylvania*, Docket Nos. A-2011-2247862, *et al*., 2012 Pa. PUC LEXIS 298 at *61 (Initial Decision issued Feb. 9, 2012) (Opinion and Order Denying Exceptions entered June 7, 2012); *Application of Trans-Allegheny Interstate Line Company for the Approval to Locate, Construct, Operate and Maintain Certain High Voltage Electric Transmission Line Facilities and to Exercise the Power of Eminent Domain to Construct and to Install the Proposed Aerial Electric Transmission Line Facilities Along the Proposed Route, Being a 138 kV Transmission Line and Related Facilities Collectively, the Osage-Whiteley Line Facilities or Project, in Portions of*

before the Commission may approve the transmission line, or before construction of the proposed line begins.[37] In addition, the Commission has concluded an applicant can satisfy 52 Pa. Code § 57.76(a)(3) by demonstrating that a rebuilt transmission line will be located entirely within existing rights-of-way ("ROW") and "state and federal agencies have confirmed that they either have no concerns regarding impacts on endangered or threatened species, or that they will work with [the applicant] to ensure that the construction does not negatively impact such species."[38]

With respect to the selection of a proposed route for a high-voltage transmission line under 52 Pa. Code § 57.76(a)(4), the Commonwealth Court of Pennsylvania has held that a utility's route for a proposed HV transmission line should be approved where the record evidence shows that the utility's route-selection process was reasonable, and that the utility properly considered the factors relevant to siting a transmission line.[39] Moreover, the Commission has recognized that its regulations do not require the utility to show no impact; instead, they require "through reasonable regulation, the impacts of a transmission line to be minimal considering the needs of the public."[40] The Commission has also concluded that where a transmission line "will be constructed entirely on existing ROW and…the line is being rebuilt, consideration of an alternative route is unnecessary."[41] Indeed, requiring a utility to consider and evaluate *every* alternative "would

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Dunkard Township, Perry Township, and Whiteley Township, Greene County in Southwestern Pennsylvania, Docket Nos. A-2010-2187540, *et al*., 2011 Pa. PUC LEXIS 2028 (Recommended Decision issued Mar. 28, 2011) (Opinion and Order entered Mar. 15, 2012); *Application of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa. Code Chapter 57, Subchapter G, for Approval of the Siting and Construction of the Pennsylvania Portion of The Proposed Susquehanna-Roseland 500 kV Transmission Line*, Docket Nos. A-2009-2082652, *et al*., 2010 Pa. PUC LEXIS 434, at *191-201 (Opinion and Order entered Feb. 12, 2010).

[37] *Energy Conservation Council of Pennsylvania v. Pa. PUC*, 25 A.3d 440, 452 (Pa. Cmwlth. 2011) (hereinafter "*Susquehanna-Roseland*").

[38] *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; Petition for Waiver of Certain Provisions of the Commission's Regulations for Commission Review of Siting and Construction of Electric Transmission Lines set forth at 52 Pa. Code § 57.71 et seq.*, Docket No. A-2019-3007945, at p. 19 (Order entered Aug. 14, 2019) ("*Breinigsville-Alburtis Order*").

[39] *Susquehanna-Roseland*, at 449-50 (quoting *Energy Conservation Council of Pa. v. Pa. PUC*, 995 A.2d 465, 479-80 (Pa. Cmwlth. 2010) ("*TrAILCo*")).

[40] *Klecknersville Order* at, p. 43 .

[41] *Breinigsville-Alburtis Order*, at p. 6 (emphasis added); *See also Summit-Lackawanna*, at p. 32 ("[t]he need for a siting study is further obviated by the fact that any alternative route would require the location of transmission lines

effectively eliminate siting HV lines in Pennsylvania, a goal clearly not intended by the regulation."[42]

where none presently exist; in this regard, the existing ROW would have fewer environmental impacts and constitute the preferred ROW in comparison to other reasonable alternatives.")

[42] *See Summit-Lackawanna*; *Application of PPL Electric Utilities Corp. Filed Pursuant to 52 Pa. Code Chapter 57 Subchapter G, for Approval of the Siting and Construction of the Pennsylvania Portion of The Proposed Susquehanna-Roseland 500 kV Transmission Line in Portions of Lackawanna, Luzerne, Monroe, Pike and Wayne Counties, Pennsylvania*, Docket No. A-2009-2082652, at *71 (Opinion and Order Entered Feb. 12. 2010); *See also In Re: Application of PPL Electric Utilities Corporation (PPL) for Approval of the Siting and Reconstruction of the Proposed Coopersburg # 1 and # 2 138/69 kV Tap in Upper Saucon Township, Lehigh County and Springfield and Richland Townships, Bucks County, Pennsylvania (Coopersburg kV transmission line)*, Docket Nos. A-2008-2022941, *et al.*, at p. 31 (Opinion and Order entered July 24, 2009) ("Further, we do not accept the proposition implicit in this Exception that PPL or any public utility applicant must perform an environmental analysis on every alternative route that might be available.")

IV. SUMMARY OF ARGUMENT

The Letter of Notification should be approved without modification or condition, and OCA's recommendations should be denied. The proposed Stanton-Summit Project is needed to address asset health and public safety concerns resulting from the prevalence of pack-out rust in the 46 existing COR-TEN® lattice towers that comprise the Stanton-Summit #3 and #4 Transmission Lines. Moreover, the Project immediately and permanently resolves this need in a cost-effective manner compared to other alternatives.

Under the Commission's regulations, an electric utility must satisfy the criteria set forth in 52 Pa. Code § 57.76(a) in order for the Commission to approve the siting and construction of an HV transmission line. Critically, PPL Electric's evidence regarding the criteria set forth in 52 Pa. Code § 57.76(a)(2)-(4) is not disputed. In addition, once it is recognized that the OCA does not dispute the asset health and public safety concerns driving the Project, it becomes clear that there is no real dispute with respect to the requirement set forth in 52 Pa. Code § 57.76(a)(1); PPL Electric has clearly demonstrated that "there is a need" for the Stanton-Summit Project.

More specifically, the undisputed record evidence demonstrates that the Project is required to immediately and permanently address asset health and public safety concerns related to the deteriorated condition of the COR-TEN® lattice towers that make up the existing Stanton-Summit #3 and #4 230 kV Transmission Lines. The deteriorated condition of these structures is due to the prevalence of pack-out rust, which has been analyzed in detail by PPL Electric. Importantly, when the presence of pack-out rust becomes too severe, it can deform steel members and connecting hardware. Pack-out rust can also shear off bolts, cause loss of structural integrity, cause members to disconnect from the tower, and even result in tower failure. Based on several analyses, including specific evaluations of the lattice towers at issue, PPL Electric has demonstrated that the prevalence of pack-out rust in the existing COR-TEN® lattice towers that comprise the Stanton-

Summit #3 and #4 230 kV Transmission Lines has accelerated the deterioration of these structures and brought the assets to the end of their service life much sooner than would have been anticipated.

OCA does not dispute that this need exists. Rather, it claims that PPL Electric has not satisfied the need requirement of 52 Pa. Code § 57.76(a)(1) because the existing PJM processes do not provide a robust evaluation of potential alternatives and thus do not adequately protect Pennsylvania ratepayers.

OCA's claim should be rejected for several reasons. First, as noted previously, OCA does not dispute the need identified by PPL Electric. Their witness specifically acknowledged that the prevalence of pack-out rust in the existing lattice tower structures is an asset health and public safety concern. Second, OCA's attempt to challenge the existing PJM processes for the review of Supplemental Projects (such as this one) and the Commission's existing regulations for the review of Supplemental Projects requiring pre-siting and construction approval under 52 Pa. Code, Chapter 57, Subchapter G, is not proper for this proceeding. OCA's witness admitted that its concerns with the existing requirements of PJM and OCA were outside the scope of this Letter of Notification, which involves a single transmission line project, proposed by a single utility. Third, OCA's legal conclusion that there is not a need for the Project because certain transmission and non-transmission alternatives should be evaluated is unsound under the plain language of 52 Pa. Code § 57.76(a)(1). OCA attempts to read words into this regulation in an attempt to improperly shoehorn an "available alternatives" challenge under 52 Pa. Code § 57.76(a)(4) into a provision that makes no mention of "available alternatives." In addition, even if the OCA's argument that PPL Electric should be required to consider additional alternatives fell within the ambit of 52 Pa. Code § 57.76(a)(1)—and it does not—this argument simply ignores the regulation's use of the specific phrase term "[t]here is <u>a need</u> for it."

OCA's proposed alternatives should also be rejected because OCA has failed to demonstrate that they are feasible (i.e., that they address the need driving the Project) or reasonable. Critically, OCA carries the burden of proof with respect to the alternatives it has proposed as the proponent of a Commission order requiring PPL Electric to evaluate and/or implement these alternatives instead of the proposed Project. With respect to these alternatives, OCA's own witness admits that none of them can be considered "good utility practice" and that none of them are reasonable when compared to the Project. Moreover, none of the alternatives offered by OCA (except for the substantially more expensive undergrounding alternative) are designed to address an asset health need; rather, they specifically address "congestion" on the transmission grid, which OCA's witness admits is a different need than the asset health and public safety need that is driving the Project.

Finally, even if OCA's concerns regarding the need for PPL Electric to evaluate additional alternatives were valid—and they are not—PPL Electric has thoroughly evaluated each alternative advanced by the OCA during the course of this proceeding. Indeed, during the course of responding to discovery and preparing its direct and rebuttal testimony, PPL Electric analyzed each alternative proposed by the OCA and explained why there were not feasible or not reasonable compared to the Project.

With respect to the remaining requirements set forth in 52 Pa. Code § 57.76(a)(2)-(4), PPL Electric's evidence is undisputed. PPL Electric has satisfied 52 Pa. Code § 57.76(a)(2) by demonstrating the Project will need or exceed NESC standards and the Project adequately addresses electric and magnetic field mitigation. PPL Electric has satisfied 52 Pa. Code § 57.76(a)(3) by providing information on regulatory permit requirements and agency coordination regarding cultural and environmental resources, and committing to obtain all required permits and

comply with all conditions imposed therein. PPL Electric has similarly satisfied 52 Pa. Code § 57.76(a)(4).

For these reasons and as more fully explained below, PPL Electric requests that the ALJs and the Commission approve the Company's Letter of Notification, which is necessary to permit the prompt construction of the Stanton-Summit Project.

V. ARGUMENT

A. INTRODUCTION

The electric transmission system is the "backbone" of the electric transmission grid. Indeed, PPL Electric explained the vital role that transmission facilities play in supplying reliable electric service:

> The nation's interconnected transmission system ("Transmission Grid") serves as the backbone for safe and reliable delivery of large amounts of electricity from generating stations over substantial distances to customers served by transmission and local distribution systems. It is critical that the Transmission Grid be planned and designed to ensure reliable electric service is provided under all loading conditions or when certain elements of the Transmission Grid are out of service (system contingencies) due to planned or unplanned outages.[43]

The nation's electric system is comprised of three basic components: generation, transmission, and distribution. Generating plants typically produce electricity at a relatively low voltage. Transformers located adjacent to the generating plants increase or "step up" the voltage to transmission-level voltages, depending on the size of the generating facility and the distance the electricity must travel for delivery to customers. After the voltage is stepped up, the power is transmitted to substations, where the voltage level is sequentially stepped down for ultimate delivery into the distribution system. Distribution transformers then further reduce the voltage from primary to secondary distribution levels for ultimate delivery to customers.[44]

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[43] PPL Electric Exhibit JBL-1, at p. 3. The need to upgrade transmission infrastructure also is reflected in the American Recovery and Reinvestment Act of 2009 ("ARRA"), P.L. No. 111-5, 123 Stat. 115 (2009). Specifically, the Electricity Delivery and Energy Reliability section of Title IV of the ARRA provides appropriations for the development of regional transmission plans, future demand and transmission requirements, and interconnection-based transmission plans. Additionally, the same concept has been reinforced more recently, as reflected in Section 40106(d) of the Infrastructure Investment and Jobs Act ("IIJA"), P.L. No. 117-58, § 40106(d), 135 Stat. 429, 936 (2021), as well as Sections 50151 and 50152 of the Inflation Reduction Act ("IRA") of 2022, P.L. No. 117-169, §§ 50151-50152, 136 Stat. 1818, 2046 (2022).

[44] *See Application of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa. Code Chapter 57, Subchapter G, for Approval of the Siting and Construction of the Pennsylvania Portion of The Proposed Susquehanna-Roseland 500 kV Transmission Line in Portions of Lackawanna, Luzerne, Monroe, Pike and Wayne Counties, Pennsylvania*, Docket Nos. A-2009-2082652, *et al.*, 2010 Pa. PUC LEXIS 434, at *32-33 (Opinion and Order entered Feb. 12, 2010).

PPL Electric has a statutory obligation to provide safe and reliable service to its customers.[45] As a member of PJM, PPL Electric participates in, and employs, a regional transmission system planning process and identifies facilities that require reinforcement to enable it to meet this obligation and plan appropriate measures to assure reasonably continuous supply to customers, even during adverse conditions. The planning process is described in detail in Section V.B.1. below.

In order to grant a contested letter of notification for the construction and siting of a high voltage transmission line, the Commission must find and determine the following as to the proposed 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 the available technology and the available alternatives.[46]

PPL Electric will separately address each of these required findings. However, the scope of issues that are contested in this proceeding is extremely limited.

OCA's challenge is limited to its claim that PPL Electric has not satisfied 52 Pa. Code § 57.76(a)(1).[47] Specifically, OCA claims that the Project is not needed because of OCA's perceived gaps in the PJM process for evaluating Supplemental Projects,[48] which it claims resulted in a lack

[45] *See* 66 Pa. C.S. § 1501.
[46] 52 Pa. Code § 57.76(a) (emphasis added).
[47] OCA St. 1, at p. 7 (testifying that the OCA "do[es] not believe that PPL Electric has satisfied the need requirement for their proposed Project." (emphasis added)); *see also* PPL Electric St. 1-R, at p. 4, PPL Electric Exhibit JBL-1R, and PPL Electric Cross Exhibit 6.
[48] Tr. 97-98 ("Q. [ATTORNEY LENT] So just to put a finer point on that, because of your perceived gaps in the PJM process, you believe PPL has not demonstrated this project is needed? A. [OCA WITNESS MR. KONIDENA] A.

of analysis of certain alternatives proposed in OCA's testimony prior to the submission of this Letter of Notification.[49] However, there is an immediate and undisputed need for the Project, and OCA has failed to demonstrate its proposed alternatives actually address this need, or that any of its alleged alternatives demonstrate the Stanton-Summit Project as proposed is unreasonable or arbitrary.

Once OCA's unavailing challenge to the need for the Project is rejected, no other issues remain in dispute. PPL Electric's evidence that the Project will not create an unreasonable risk of danger to the health and safety of the public is undisputed and satisfies the requirements of 52 Pa. Code § 57.76(a)(2). PPL Electric's evidence that the Project complies with applicable statutes and regulations, providing for the protection of the natural resources of this Commonwealth is unchallenged and satisfies the requirements of 52 Pa. code § 57.76(a)(3). PPL Electric's evidence that the Project will have minimum adverse environmental impacts is also uncontested and satisfies the requirements of 52 Pa. Code § 57.76(a)(4). Nevertheless, PPL Electric separately addresses each of these required findings below.

Therefore, and for the reasons explained below, PPL Electric has met its burden with respect to each of the findings required by Section 57.76(a) of the Commission's regulations.

B. THERE IS AN UNDISPUTED NEED FOR THE STANTON-SUMMIT PROJECT

The Stanton-Summit Project is driven by undisputed asset health and public safety concerns. Pack-out rust exists in every one of the 46 COR-TEN® lattice structures that comprise the Stanton-Summit #3 and #4 230 kV Transmission Lines.[50] The prevalence of pack-out rust in the joints of each of these structures can "deform steel members and connecting hardware…shear

Because of the PJM's supplemental project, because of the gaps in PJM's supplemental projects, this particular line is a supplemental project, and no, alternatives have not been studied. So, yes, that's my opinion." (emphasis added)).

[49] Tr. 95-96.

[50] PPL Electric Exhibit JBL-1, at p. 10.

off bolts, cause loss of structural integrity, cause members to disconnect from the tower" and can "even result in tower failure."[51] Due to these concerns, these structures "have exceeded their useful life and can no longer be relied upon to safely operate as designed."[52]

Consistent with its comprehensive transmission planning process, obligations as a transmission owner ("TO") within PJM, and its obligations as an electric utility to provide safe and reliable service under the Public Utility Code, PPL Electric evaluated and identified this need, considered alternatives solutions, and developed a proposed solution that resolved the asset health and public safety concerns. PPL Electric submitted the Stanton-Summit Project to PJM for review and approval as a Supplemental Project, in full compliance with PJM's existing requirements and procedures for Supplemental Projects. In addition, PPL Electric has submitted the Stanton-Summit Project to the Commission for review and approval as an HV transmission line project, in full compliance with the Commission's existing requirements and procedures for letters of notification under 52 Pa. Code, Chapter 57, Subchapter G. Consistent with these existing requirements and procedures, PPL Electric has demonstrated that the Stanton-Summit Project is a cost-effective, efficient, immediate and permanent solution to the asset health and public safety concerns caused by the prevalence of pack-out rust in the existing lattice structures.

Critically, OCA does not contest PPL Electric's analysis of the need to immediately and permanently address the prevalence of pack-out rust on the existing COR-TEN® lattice tower structures that comprise the Stanton-Summit #3 and #4 230 kV Transmission Lines.[53] Moreover, none of OCA's alternatives immediately and permanently address this need.[54] OCA has conducted no analysis of the potential reliability impacts of its proposed alternatives on PPL Electric's

[51] PPL Electric Exhibit JBL-1, at p. 7.
[52] PPL Electric Exhibit JBl-1, at p. 11.
[53] Tr. 98; *see also* Section V.B.3.a., *infra*.
[54] *See* Section V.B.3.a., *infra*.

transmission or distribution systems,[55] and OCA failed to demonstrate any of its proposed alternatives are more cost-effective than the proposed Project.[56] On the other hand, during the course of this proceeding, PPL Electric has performed an analysis of the alternatives proposed by OCA and demonstrated they are not feasible or reasonable.[57] Therefore, and as more fully explained below, PPL Electric has demonstrated that there is a need for the Project under 52 Pa. Code § 57.76(a)(1).

1. PPL Electric Has A Comprehensive Transmission Planning Process

PPL Electric has a responsibility to provide transmission assets and maintain them in an adequate, efficient, safe, reliable, and reasonable manner to meet the needs of the electric system and the expectations of its customers.[58] To achieve this, PPL Electric applies its Transmission Asset Management Procedure as part of its system performance and condition assessment process.[59] These performance and condition assessments identify system needs and prioritize projects based on several variables such as equipment age, condition, maintenance schedule, and impact on system reliability and asset performance to ensure a reliable electric grid and service to its customers.[60]

PPL Electric engages in proactive planning and action to ensure that its system operates safely and reliably. System needs are identified using the Company's Transmission Asset Management Procedure based on the overarching goals of reducing outage frequency and duration, improving system reliability, decreasing system maintenance cost, and maintaining operational flexibility to ensure safe and reliable electric service of the transmission system and to PPL

[55] *See* Section V.B.3.d.iii-iv., *infra*.
[56] *See* Section V.B.3.d.iii-iv., *infra*.
[57] *See* Section V.B.3.b.v., *infra*.
[58] PPL Electric St. 1, at p. 3; PPL Electric Exhibit JBL-1, at p. 2.
[59] PPL Electric St. 1, at p. 3; PPL Electric Exhibit JBL-1, at p. 2.
[60] PPL Electric St. 1, at p. 3; PPL Electric Exhibit JBL-1, at p. 2.

Electric's customers.[61] This allows PPL Electric to identify future problems and correct them before they occur, rather than wait until a specific problem occurs before taking measures to resolve it.

PPL Electric witness Mr. Joseph B. Lookup further explained PPL Electric's role as a member of PJM. He explained:

> PJM is a Federal Energy Regulatory Commission ("FERC")-approved Regional Transmission Organization ("RTO") charged with ensuring the reliability of the electric transmission system under its functional control (100 kV and above), and coordinating the movement of electricity in all or parts of thirteen states and the District of Columbia, including Pennsylvania. To ensure reliable transmission service, PJM prepares an annual Regional Transmission Expansion Plan ("RTEP") to identify system reinforcements that are required to, among other things, meet the NERC Reliability Standards, PJM reliability planning criteria, and Transmission Owner reliability criteria.
>
> When transmission owning utilities (including PPL Electric) set up PJM as an RTO, they agreed to bind themselves to maintaining their existing transmission systems using Good Utility Practice. The Consolidated Transmission Owners Agreement ("TOA") is an agreement among (1) individual Transmission Owners operating within the PJM Region and (2) between the Transmission Owners and PJM. The TOA facilitates the planning and operation of the Transmission Grid within the PJM region and establishes the rights and responsibilities of each party to the TOA. Section 4.6 of the TOA requires that transmission systems "[b]e kept in place and maintained in good operating condition in accordance with Good Utility Practice and principles, guidelines and standards of the applicable Regional Reliability Council and NERC." The Project is required to fulfill PPL Electric's obligations under the TOA.[62]

Furthermore, PPL Electric witness Mr. Szmodis confirm that the Company's review of its transmission and distribution systems includes consideration of alternatives other than the construction of overhead transmission and distribution lines. Mr. Szmodis explained:

> PPL Electric's transmission and distribution planning processes include a holistic review of the needs of its system. Once specific

[61] PPL Electric St. 1, at p. 5.
[62] PPL Electric St. 1 at pp. 4-5.

> needs are identified, the Company also reviews various solutions determine what solution best resolves an identified need. This process includes consideration of technologies other than the construction of overhead transmission and distribution lines, such as undergrounding transmission/distribution lines, BESS, DLR and DR/EE/DER technologies, where those technologies could potentially address the identified need.
>
> Indeed, PPL Electric has deployed these technologies where across its system, where they can adequately address specific needs.[63]

However, where a given alternative technology will not address the need identified by the transmission planning process, PPL Electric does not consider it to be a feasible and/or reasonable alternative solution, as is the case here.[64]

The Stanton-Summit Project is a Supplemental Project.[65] Although Supplemental Project upgrades are not mandated or directed by PJM, PPL Electric witness Mr. Lookup explained that PPL Electric presented its plan to address COR-TEN® needs on the 230 kV system at the October 2020 PJM TEAC meeting.[66] As a part of this presentation, the Company shared the need with PJM stakeholders to address COR-TEN® towers on the Stanton-Summit #3 and #4 230 kV Transmission Lines (need # PPL-2020-0006).[67] Consistent with its existing requirements and procedures applicable to Supplemental Projects, PJM approved the Stanton-Summit Project as Supplement Project s2367.[68] Moreover, as explained below, the Project is needed to immediately and permanently address asset health and public safety concerns associated with the prevalence of pack-out rust in the existing COR-TEN® lattice towers that currently comprise the Stanton-Summit #3 and #4 230 kV Transmission Lines.

[63] PPL Electric St. 1, at p. 5.
[64] PPL Electric St. 1, at p. 6.
[65] PPL Electric St. 1, at p. 14.
[66] PPL Electric St. 1, at pp. 13-14.
[67] PPL Electric St. 1, at p. 14.
[68] PPL Electric St. 1, at p. 14.

2. The Project Is The Most Cost-Effective And Efficient Solution To Immediately, And Permanently, Resolve The Asset Health And Public Safety Needs Associated With The Existing COR-TEN® Lattice Towers Comprising The Stanton-Summit #3 and #4 230kV Transmission Lines

The Stanton-Summit Project is needed to address the substantial prevalence of pack-out rust in the existing COR-TEN® lattice towers that comprise the existing Stanton-Summit #3 and #4 230 kV Transmission Lines. In addition, the Project is needed to prevent violations of NERC reliability standards and maintain reliable transmission service during outages impacting other aspects of PPL Electric's transmission system. The manner in which the Stanton-Summit Project resolves each of these needs is described in further detail below.

a. PPL Electric's Project resolves significant asset health and public safety concerns related to the existing COR-TEN® lattice towers

The Stanton-Summit Project will rebuild the existing Stanton-Summit #3 and #4 230 kV Transmission Lines.[69] The existing transmission lines are approximately 7.7 miles long and connect the Stanton Substation and a two-pole turn structure located approximately 1.4 miles north of the Summit Substation.[70] All the COR-TEN® lattice structures, as well as the conductor at the 46 locations will be replaced.[71] Figure 1-1 in PPL Electric Exhibit JBL-1 provides a map of the existing system configuration,[72] and Figure 1-2 provides a map of the proposed system configuration.[73]

The Project is needed to address asset health concerns that are being accelerated by increased incidences of pack-out rust.[74] The weathering-steel lattice towers that comprise the

[69] PPL Electric St. 1, at p. 5; PPL Electric Exhibit JBL-1, at pp. 11-12.
[70] PPL Electric St. 1, at p. 5; PPL Electric Exhibit JBL-1, at p. 5.
[71] PPL Electric St. 1, at p. 1; PPL Electric Exhibit JBL-1, at p. 16.
[72] PPL Electric Exhibit JBL-1, at p. 18.
[73] PPL Electric Exhibit JBL-1, at p. 19.
[74] PPL Electric St. 1, at p. 6. Mr. Lookup further explained that "'Pack-out rust' or 'pack rust' is a form of localized corrosion typical of steel components that develop a crevice into an open atmospheric environment, which results in rust packing between conjoined steel components. Pack-out rust accelerates the deterioration of asset health and can

Stanton-Summit #3 and #4 230 kV Transmission Lines were originally constructed in the early 1970s.[75] COR-TEN® lattice towers were commonly installed by the industry during this time because it was believed that the corrosion-resistant properties of weathering-steel would reduce future maintenance needs/costs.[76] These towers had an expected service life of approximately 75 years at the time they were installed.[77]

PPL Electric has conducted deliberate analyses of the prevalence of pack-out rust in COR-TEN® lattice towers, and the impacts of pack-out rust on the health of these assets. As explained by Mr. Lookup, in 2013 PPL Electric utilized a third-party contractor to perform an assessment of the COR-TEN® lattice structures on its 230 kV transmission lines under a steel structure capital maintenance program.[78] The assessment identified that 126 of 131 COR-TEN® structures (96%) inspected as a part of this assessment had one or more structure legs rated Condition C (poor) or Condition D (very poor); relatedly, twenty-five structures had one or more legs that were identified as "priority" and required immediate attention, and protective coating was applied to the 101 other non-priority structures.[79] PPL Electric conducted repairs to the "priority" structures, and applied protective coating to the Condition C or D structures not identified as "priority" in 2014.[80] Ongoing inspections since 2014 have confirmed these structures are continuing to degrade.[81]

The asset health concerns revealed by the 2013 inspection were further heightened by the discovery of pack-out rust in the section joints of the COR-TEN® lattice towers. As explained in PPL Electric Exhibit JBL-1:

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result in shearing off bolts, loss of structural integrity, members disconnecting from lattice towers, and tower failure." PPL Electric St. 1, at p. 6, n.1.

[75] PPL Electric Exhibit JBL-1, at p. 5.

[76] PPL Electric Exhibit JBL-1, at p. 6.

[77] PPL Electric Exhibit JBL-1, at p. 5.

[78] PPL Electric St. 1, at p. 6. PPL Electric explain the evaluation performed by the contractor in greater detail in LON Attachment 1 – Necessity Statement. *See* PPL Electric Exhibit JBL-1, at p. 6.

[79] PPL Electric St. 1, at p. 7.

[80] PPL Electric Exhibit JBL-1, at p. 6.

[81] PPL Electric Exhibit JBL-1, at p. 6.

> In particular, the protective surface coating of weathering steel that provides resistance to atmospheric corrosion, known as the patina, did not form properly on the structure joints and members due to moisture trapped between the joints. The trapped moisture prevented completion of the required wetting and drying cycle needed to form the patina. Over time, this has led to the formation of pack-out rust within the joints of connecting tower members and section-loss in the steel members and joints. When the pack rust becomes too severe, it can deform steel members and connecting hardware. It can shear off bolts, cause loss of structural integrity, cause members to disconnect from the tower, and even result in tower failure. PPL Electric is experiencing pack-out rust failures on its transmission line system, which are a leading indicator of ultimate structure failure as outlined above. Over the past few years, PPL Electric has encountered multiple instances of COR-TEN® tower members becoming detached, broken, and deformed/corroded to failure due to severe pack-out rust. Failures of this nature on a transmission tower create emergent safety and reliability concerns which must be proactively addressed.[82]

The negative impacts of pack-out rust on COR-TEN® structures have diminished the expected service life of the existing COR-TEN® lattice towers that comprise the Stanton-Summit #3 and #4 230 kV Transmission Lines from 75 to 50 years.[83] As these structures were installed approximately 50 years ago, they have effectively reached end-of-life.[84]

PPL Electric subsequently contracted three additional independent, non-affiliated inspection companies to conduct evaluations of COR-TEN® lattice towers and determine the overall condition of these towers on the PPL Electric Transmission System in 2019.[85] The contractors' reports revealed that "over 90% of the joints at each structure exhibited visible pack-out in the connections."[86] In addition, the reports showed that pack-out rust and section-loss was

[82] PPL Electric Exhibit JBL-1, at pp. 6-7 (emphasis added).
[83] PPL Electric Exhibit JBL-1, at p. 7.
[84] PPL Electric Exhibit JBL-1, at p. 7.
[85] PPL Electric St. 1, at pp. 7-8. The details of how these inspections were performed are explained in LON Attachment 1 – Necessity Statement. PPL Electric Exhibit JBL-1, at pp. 7-8.
[86] PPL Electric St. 1, at p. 8 (emphasis added).

most prominent on the lower portions of the towers where there was higher likelihood of moisture build up.[87]

A further, more robust, evaluation of COR-TEN® lattice towers was initiated in early 2020 to determine the full extent of the deterioration on the transmission system.[88] PPL Electric's Data Analytics Team used an statistical analysis and model to comprehensively determine the overall condition of the COR-TEN® lattice towers in a cost-efficient manner.[89] The statistical analysis determined that inspection of 192 randomly selected COR-TEN® towers would provide a statistically significant representation of all 1,284 COR-TEN® towers on the PPL Electric system.[90] The results of the random inspection and structure rating analysis performed in 2020 are reproduced below:[91]

TABLE 1-1: Structure Rating Summary

Overall Structure Rating			
Class	**Condition**	Structure Count	Percent
A	**Good**	0	0.0%
B	**Fair**	0	0.0%
C	**Poor**	95	49.5%
D	**Severe**	88	45.8%
F	**Priority**	9	4.7%

[87] PPL Electric St. 1, at p. 8.
[88] PPL Electric St. 1, at p. 8.
[89] PPL Electric St. 1, at p. 8.
[90] PPL Electric St. 1, at p. 8.
[91] PPL Electric Exhibit JBL-1, at p. 9 (Table 1-1).

The results of the 2020 inspection program confirmed the severity of deterioration noted during the 2019 inspection.[92]

Finally, PPL Electric retained RTR Energy Solutions, Inc. ("RTR") to prepare a condition assessment of the Stanton-Summit #3 and #4 230 kV Transmission Lines in March 2022.[93] RTR's assessment analyzed each joint of all 30 structures that comprise this transmission line.[94] Each structure was then assessed with a condition rating of "Mild" (less than 25% of total joints contain pack rust), "Moderate" (more than 25% but less than 50% of total joints contain pack rust), or "Severe" (more than 50% of total joints contain pack rust).[95] A summary of the results of the inspection are represented in Table 1-2 of LON Attachment 1 – Necessity Statement, which is reproduced below:[96]

TABLE 1-2: Structure Condition Rating Summary

Condition	Structure Count
Mild	0
Moderate	40
Severe	6
Total	46

While pack-out rust was observed in joints all the way up some towers, the majority was observed in the lower sections of the post legs where horizontal and diagonal members are bolted to the post leg.[97] Moreover, none of the structures were in "Mild" condition and "[o]ut of the 40 structures classified as 'moderate', the average percentage of total joints containing pack rust is

[92] *See* PPL Electric Exhibit JBL-1, at p. 9.
[93] PPL Electric St. 1, at p. 9.
[94] PPL Electric St. 1, at p. 9.
[95] PPL Electric St. 1, at p. 9; PPL Electric Exhibit 1, at p. 52.
[96] PPL Electric Exhibit JBL-1, at p. 10 (Table 1-2).
[97] PPL Electric Exhibit JBL-1, at p. 10.

approximately 46%."[98] This analysis showed that "the average structure that is classified as moderate in the assessment is very close to being considered 'severe' and the condition of the structures on the line are overall more severe."[99]

PPL Electric has clearly demonstrated that the existing COR-TEN® lattice towers have deteriorated and have been brought to the end of their service life much sooner than would have been anticipated. At roughly 50 years of age, the COR-TEN® lattice towers that comprise the Stanton-Summit #3 and #4 230 kV Transmission Lines have exceeded their useful life and can no longer be relied upon to safely operate as designed.[100] Due to the prevalence of pack-out rust in these lowers, there is an increased risk of (a) possible shearing of bolts, (b) members disconnecting from lattice towers, or (c) complete tower failure.[101] These conditions pose not only a significant asset health concern, but also a major safety risk to both the public and PPL Electric employees.[102]

b. PPL Electric's Project is necessary to prevent violations of NERC reliability standards and maintain reliable transmission service during planned and unplanned outages

The asset health and public safety concerns identified above are also important because a failure of the Stanton-Summit #3 and #4 230 kV Transmission Lines would also likely result in reliability issues for PPL Electric's Bulk Transmission System.[103] Mr. Lookup explained that "if these transmission lines fail, it is expected that the service of approximately 34,968 customers would be impacted for the next contingency."[104] Customers impacted would include "Williams Pipeline Compressor Station 605 and Metropolitan Insurance."[105]

[98] PPL Electric Exhibit JBL-1, at p. 10.
[99] PPL Electric Exhibit JBL-1, at p. 10.
[100] PPL Electric Exhibit JBL-1, at p. 11.
[101] PPL Electric Exhibit JBL-1, at p. 11.
[102] PPL Electric Exhibit JBL-1, at p. 11.
[103] PPL Electric Exhibit JBL-1, at p. 11.
[104] PPL Electric St. 1, at p. 10-11; *see also* PPL Electric Exhibit JBL-1, at p. 11.
[105] PPL Electric St. 1, at p. 10-11; *see also* PPL Electric Exhibit JBL-1, at p. 11.

Mr. Szmodis further elaborated on this need. Specifically, Mr. Szmodis identified both PPL Electric and PJM must "conduct load flow analysis according to NERC Standard TPL-001" when evaluating a specific need and potential solutions to that need.[106] Mr. Szmodis then explained that:

> The NERC Standard TPL-001 is a standard that all the electric utilities in the United States must abide by, and it lists out the type of contingencies that must be studied on a transmission system. These contingencies are taking pieces of equipment [out of] service, as an example, a transmission line, could be a generator, a transformer, and other pieces of equipment to ensure that the system does not have any overloads or voltage issues if some of these pieces of equipment are taken out of service.[107]

OCA's witness similarly admitted that PPL Electric must comply with this standard:

> Q. [ATTORNEY LENT] And transmission owners must also keep their assets in good condition to comply with NERC standards?
>
> A. [OCA WITNESS KONIDENA] Yes.
>
> …
>
> Q. [ATTORNEY LENT] If a transmission owner did not comply with NERC standards, would you consider that good utility practice?
>
> A. [OCA WITNESS MR. KONIDENA] If a transmission owner does not comply with the NERC standards, is it good utility practice? No, because there will be fines.[108]

NERC Standard TPL-001 serves an important purpose.[109] Indeed, this standard requires PPL Electric to plan for scenarios where aspects of the bulk transmission system are taken out of service (e.g., for maintenance) to ensure that the loss of other facilities does not result in disruptions on the transmission grid.

[106] PPL Electric St. 2-R at 13.
[107] Tr. 86.
[108] Tr. 113-114 (emphasis added).
[109] Tr. 86.

Furthermore, PPL Electric showed that the increased relevance of severe weather, and changing weather patterns, will impact the reliability of the existing COR-TEN® lattice towers.[110] Specifically, the risks of failure increase where a wind event impacts a structurally compromised COR-TEN® lattice tower.[111]

c. The Project resolves the identified needs on a more efficient and cost-effective basis that the alternatives evaluated by PPL Electric prior to the submission of the LON

The Project will address the asset health and public safety needs associated with COR-TEN® lattice tower replacement, as well as the related reliability and system resiliency needs that would result from a failure of these towers. With respect to the COR-TEN® asset health and public safety condition, the Project will immediately and fully resolve the deteriorated condition of the existing structures on a long-term basis by removing the existing COR-TEN® lattice towers and replacing them with steel monopoles.[112] By fully rebuilding these structures, PPL Electric will resolve the existing COR-TEN® issue and avoid the possibility of the issue worsening and/or recurring with respect to these structures and threatening public safety and the reliability of its transmission system.[113]

PPL Electric evaluated three potential solutions to address the degrading health of the Stanton-Summit #3 and #4 230 kV Transmission Lines.[114] The first alternative PPL Electric considered was to replace each of the existing COR-TEN® lattice towers with new standard lattice tower structures.[115] This alternative would have an initial replacement cost of $647,243 per structure.[116] However, this alternative would also require PPL Electric to replace the existing

[110] PPL Electric Exhibit JBL-1, at p. 12.
[111] PPL Electric Exhibit JBL-1, at p. 12.
[112] PPL Electric St. 1 at 11; PPL Electric Exhibit JBL-1, at pp. 16-17.
[113] PPL Electric St. 1 at 11-12; PPL Electric Exhibit JBL-1, at pp. 12-16.
[114] PPL Electric Exhibit JBL-1, at pp. 12-16.
[115] PPL Electric Exhibit JBL-1, at p. 13.
[116] PPL Electric Exhibit JBL-1, at p. 14.

conductors in 2026 (i.e., when the conductors reached their end of life) at an additional $256,402 per structure.[117] Moreover, there would be ongoing incremental operations and maintenance ("O&M") costs for these facilities for the remainder of their service lives.[118]

The second alternative considered by PPL Electric was to remediate the entire lattice tower line, which would include replacing badly damaged members with galvanized steel members, installing new hardware and spacers, and cleaning pack-out from affected joints.[119] The average estimated cost of remediation is approximately $200,943/structure.[120] However, PPL Electric rejected this alternative due to substantial uncertainties regarding its immediate and long-term effectiveness to address the COR-TEN® issue.[121] The Company explained that:

> [t]he contractors that provided the cost estimate have never performed a full weathering-steel COR-TEN® lattice tower remediation before. And, moreover, it is PPL Electric's understanding that complete remediation of COR-TEN® lattice towers has never been undertaken by another electric utility. Given the lack of industry experience with remediation, PPL Electric cannot adequately benchmark the efficacy and costs of this alternative. Rebuilding the subject transmission lines, as proposed by the Project, would avoid these potential unknown risks and costs.[122]

Furthermore, while remediation could extend the life of the structures, re-evaluation (at a minimum) and possible subsequent remediation every 10 years following the initial remediation may be required.[123] In addition, the health and safety risks associated with the assets' advanced age and degree of deterioration are so great that remediation would fail to adequately address the

[117] PPL Electric Exhibit JBL-1, at p. 14.
[118] PPL Electric Exhibit JBL-1, at p. 14.
[119] PPL Electric Exhibit 1, at p. 54.
[120] PPL Electric Exhibit 1, at p. 55. As further explained in Attachment 1 – Necessity Statement, this figure was developed using an average of three contractors' estimated costs to remediate each tower, which ranged from $140,000 to $240,000. PPL Electric Exhibit 1, at p. 50.
[121] PPL Electric Exhibit JBL-1, at p. 14.
[122] PPL Electric Exhibit JBL-1, at p. 14, n.16.
[123] PPL Electric Exhibit JBL-1, at p. 14.

poor asset health conditions.[124] Finally, PPL Electric explained that remediation would require additional O&M expense and would yet require the structures to be replaced in 30 years, resulting in additional duplicative projects to resolve the COR-TEN®-related asset health concerns.[125]

The third alternative evaluated by PPL Electric (i.e., the Proposed Solution, the Stanton-Summit Project, or the Project) was to fully rebuild the existing Stanton-Summit #3 and #4 230 kV Transmission Lines.[126] Importantly, the proposed rebuild is more cost-effective and much less risky than the remediation alternative.[127] In addition, the concerns regarding (1) the lack of full-remediation experience with COR-TEN® lattice towers, (2) the lack of evidence of the long-term remediation effectiveness for COR-TEN® lattice towers, and (3) the possible return of pack-out rust in the joints of remediated COR-TEN® lattice tower structures, are fully avoided by the proposed rebuild contemplated by the Project.[128] Furthermore, the proposed rebuild option avoids the ongoing O&M expense and additional, eventual reconductoring costs associated with the replacement alternative.[129] Finally, the Project has the additional benefit of improving performance by increasing clearances and improving lightning performance by replacing the existing lattice towers with monopoles.[130]

The proposed Project is also more cost-effective than the identified alternatives on a long-term cost of service basis.[131] The approximate total cost of the entire Project is $36.8 million.[132] PPL Electric presented a cost-of-service comparison over a 45-year and 75-year period for the proposed Project, and the other two alternatives,[133] which is reproduced below:

[124] PPL Electric Exhibit JBL-1, at p. 14.
[125] PPL Electric Exhibit JBL-1, at p. 14.
[126] PPL Electric Exhibit JBL-1, at p. 15.
[127] PPL Electric St. 1 at 12; PPL Electric Exhibit JBL-1, at p. 15.
[128] PPL Electric Exhibit JBL-1, at p. 15.
[129] PPL Electric Exhibit JBL-1, at p. 15.
[130] PPL Electric Exhibit JBL-1, at p. 15.
[131] PPL Electric St. 1, at p. 12.
[132] PPL Electric Exhibit JBL-1, at p. 17.
[133] PPL Electric Exhibit JBL-1, at p. 1.

TABLE 1-3: Cost of Service of Evaluated Options

Project Scope	45 Year Cost of Service ($M)	75 Year Cost of Service ($M)
Replace Structures on Stanton-Summit #3 and #4 230 kV Transmission Lines	$125.8	$150.9
Remediate Structures on Stanton-Summit #3 and #4 230 kV Transmission Lines	$116.7	$235.7
Full Rebuild Stanton-Summit #3 and #4 230 kV Transmission Lines	$111.2	$134.9

On a total cost-of-service basis, the Proposed Solution is approximately 88% of the cost of Alternative 1 (i.e., replacing the existing structures) on a 45-year basis and 95% of the cost of Alternative 1 on 75-year basis.[134] In addition, on a total cost-of-service basis, the Proposed Solution is approximately 89% of the cost of Alternative 2 (i.e., remediating the existing structures) on a 45-year basis and 57% of the cost of Alternative 2 on 75-year basis.[135]

3. OCA's Claim That There Is Not A Need For The Project Should Be Rejected

OCA asserted that Commission should reject the Stanton-Summit Project because PPL Electric has not "satisfied the need requirement" under 52 Pa. Code § 57.76(a)(1).[136] OCA's argument is based on its perception that the "existing PJM processes do not provide a robust

[134] PPL Electric Exhibit JBL-1, at p. 17.
[135] PPL Electric Exhibit JBL-1, at p. 17.
[136] OCA St. 1 at 7.

evaluation of potential alternatives and thus do not adequately protect PA ratepayers."[137] This argument should be rejected for several reasons.

a. OCA does not dispute the significant asset health and public safety needs identified by PPL Electric

The 46 COR-TEN® lattice towers at issue in this case are the subject of asset health and public safety concerns that are being accelerated by increased incidences of pack-out rust.[138] OCA does not address, let alone dispute, this identified need.

Indeed, OCA witness Mr. Konidena accepted PPL Electric's description of this need and acknowledged that "it is an asset health issue" and "a public safety issue."[139] He further reiterated this acceptance during cross-examination,[140] and crystallized the fact that OCA was not disputing the need to address the prevalence of pack-out rust in the Stanton-Summit #3 and #4 230 kV Transmission Lines as follows:

> Q. [ATTORNEY LENT] …[W]ould you agree with me that the rebuild of the Stanton-Summit…#3 and #4 230 kV transmission lines that is proposed in this Letter of Notification is intended to address incidences of pack out rust or pack rust in the existing lattice towers of those transmission lines?
>
> A. [OCA WITNESS KONIDENA] Correct.
>
> Q. [ATTORNEY LENT] And you don't dispute the fact that pack out rust does exist on these lattice towers.
>
> Right?
>
> A. [OCA WITNESS KONIDENA] That's right.
>
> Q. [ATTORNEY LENT] And your testimony does not call into question or dispute PPL Electric's…analysis of the existence of the packout rust on these towers.
>
> Correct?

[137] OCA St. 1 at 5-6.
[138] PPL Electric St. 1-R at 5; *see also* Section V.B.2.a., *supra*.
[139] OCA St. 1 at 8.
[140] Tr. 100-101.

A. [OCA WITNESS KONIDENA] That's correct.[141]

Contrary to OCA's assertion that PPL Electric did not satisfy 52 Pa. Code § 57.76(a)(1), OCA's witness admitted that (a) there is an asset health and public safety need for the Stanton-Summit Project and (b) the OCA does not dispute this need.

b. OCA's attempt to challenge existing PJM and Commission requirements and procedures related to HV transmission lines projects is not proper for this proceeding

As explained by PPL Electric witness Mr. Lookup, "once it is recognized that Mr. Konidena has not challenged the asset health and public safety concerns at issue, it becomes clear that his testimony simply raises his concerns with [the existing] PJM planning process generally, and with specific respect to Supplemental Projects."[142] However, these challenges are not properly raised this proceeding for several reasons.

OCA's witness admits that a request for the Commission to seek to change PJM's process with respect to its evaluation of Supplemental Projects "would be beyond the scope of this proceeding."[143] As Mr. Konidena admitted on cross, this proceeding only involves one Pennsylvania public utility, whereas PJM's process apply to numerous transmission owners across its footprint.[144] In addition, this proceeding only involves a single double circuit electric transmission line, whereas PJM's process apply to an entire electric transmission system that spans 13 states and the District of Columbia.[145]

Indeed, none of the concerns identified by Mr. Konidena are unique to this LON. Rather, his testimony provides his opinions regarding the PJM planning process for Supplement Projects,[146] which was approved by FERC and is part of the relevant transmission tariff, and is

[141] Tr. 98
[142] PPL Electric St. 1-R at 7.
[143] Tr. 102-103.
[144] Tr. 103.
[145] Tr. 103.
[146] *See* OCA St. 1 at 11-22.

required to be followed by PJM and the PJM Transmission Owners. Importantly, Mr. Konidena specifically admits that the concerns identified by his testimony are already the subject of an Advanced Notice Of Proposed Rulemaking ("ANOPR") at FERC, regarding the concept of an Independent Transmission Monitor.[147] He further notes that the Commission is actively participating in this proceeding, FERC has not acted, and any FERC order would be subject to rehearing.[148] As such, Mr. Konidena is asking the Commission to impose additional regulatory requirements on PPL Electric in this proceeding, outside of the FERC-approved tariff process, as an end-run around an existing FERC rulemaking process.

Despite admitting that a request to change PJM's process would be beyond the scope of this proceeding, the relief requested by OCA asks the Commission to apply a "heightened level of scrutiny" to Supplemental Projects approved by PJM.[149] This relief would constitute unlawful and improper rulemaking by the Commission.[150]

Critically, OCA admits that PPL Electric did investigate potential alternatives to the Stanton-Summit Project.[151] Nevertheless, OCA witness Mr. Konidena testified that PPL Electric did not investigate alternatives "as thoroughly as what should be required."[152] The following exchange occurred during the cross examination of Mr. Konidena:

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[147] OCA St. 1 at 22, n. 33.
[148] OCA St. 1 at 22, n. 33.
[149] PPL Electric St. 1-R at 7.
[150] *See Tire Jockey Serv. v. Commonwealth*, 915 A.2d 1165, 1186 (Pa. 2007) ("[W]hen an agency adopts a regulation pursuant to its legislative rule-making power, as opposed to its interpretive rule-making power, it is valid and binding upon courts as a statute so long as it is (a) adopted within the agency's granted power, (b) issued pursuant to proper procedure, and (c) reasonable."); *See also Re: Interim Guidelines for the Filing of Electric Transmission Line Siting Applications*, Docket No. M-2009-2141293, 2010 Pa. PUC LEXIS 2069, *66 (Final Order Establishing Interim Guidelines Entered Nov. 5, 2010) ("*Interim Guidelines Order*") ("[m]any of these comments are relevant to the transmission siting process generally and the Commission appreciates their submission. Additionally, many of these issues, while well-considered, have not been subject to review and comment by all parties and the unilateral inclusion of additional Interim Guidelines would have been unfair to certain parties and procedurally improper. Nevertheless, the Commission appreciates these comments, encourages their re-submittal and will give full consideration to these issues in the Proposed Rulemaking.")
[151] OCA St. 1 at 22. Additional details regarding the analysis of alternatives conducted by PPL Electric prior to filing the instant LON is discussed in Section V.B.3 *supra*, and additional details regarding the analysis of OCA's proposed alternatives conducted by PPL Electric during the course of this proceeding is discussed in Section V.B.3.d., *infra*.
[152] OCA St. 1 at 22 (emphasis added).

> Q. [ATTORNEY LENT] So what I'm asking, Mr. Konidena, is you state here that PPL Electric has investigated potential alternatives, but not as thoroughly as, and I quote, what should be required. When you use that phrase what should be required, isn't that different from what currently is required?
>
> A. [OCA WITNESS MR. KONIDENA] And for my clarification, Mr. Lent, I'm asking, are you asking about what is required under PJM's process, or are you asking about what is required under the Commission's process?
>
> Q. [ATTORNEY LENT] We'll start with under PJM's processes. Are you using the phrase what should be required as differentiated from what currently is required under PJM's processes?
>
> A. [OCA WITNESS MR. KONIDENA] Under PJM's process, I did not have any problem because stakeholders are required to provide alternatives. I didn't find anybody who provided alternatives, so PJM's process moves along. They don't wait for a state.
>
> Q. [ATTORNEY LENT] And coming back to this phrase again, when you use the phrase as thoroughly as what should be required, if we reference that term with respect to what the Commission requires, isn't that different from what is currently required by the Commission?
>
> A. [OCA WITNESS MR. KONIDENA] Yes.[153]

This exchange, in addition to OCA witness Mr. Konidena's subsequent confirmation PPL Electric had complied with existing PJM or Commission requirements,[154] makes clear that OCA is asking the Commission to expand and/or re-write its existing regulations applicable to the siting and construction of HV transmission lines.

Furthermore, the Commission has previously recognized that requiring utilities to consider alternatives that are beyond the Commission's existing regulations would require further rulemaking(s). In the *Interim Guidelines Order*, the Commission addressed and rejected the imposition of additional guidelines that would have required transmission siting applications to include documentation for each and every present and projected individual reliability criteria

[153] Tr. 105-106 (emphasis added).
[154] Tr. 120-121.

violation sought as justification for or otherwise related to the construction and siting of the proposed HV transmission line.[155] As explained by the Commission in the *Interim Guidelines Order*:

> OTS contends that inclusion of this information will: (1) give the Commission the opportunity to consider whether the proposed construction and siting will enhance reliability; (2) require applicants to describe available alternatives; and (3) require applicants to provide cost comparisons between construction of high voltage transmission, lower voltage lines or non-transmission alternatives.[156]

The Commission rejected OTS's proposal and explained:

> OTS' proposal addresses an issue that was not referenced as part of the Interim Guidelines and has not been subject to full review and comment. It would be inappropriate to include this proposed change in the Interim Guidelines at this time. The Commission believes the forthcoming Proposed Rulemaking would be the appropriate forum for consideration of this issue.[157]

Finally, Mr. Konidena's claim that the existing PJM process with respect to Supplemental Projects does not protect Pennsylvania ratepayers should also be rejected. As explained above, PPL Electric proposed the Stanton-Summit Project in order to fulfill its obligations to maintain a safe and reliable transmission system.[158] PJM's role as an RTO is to ensure transmission owning utilities (including PPL Electric) maintain their existing transmission systems consistent with requirements set forth in the TOA that is a part of the OATT.[159] The Supplemental Process is one process used by PJM to review and approve certain transmission projects proposed by transmission owners to comply with their obligation to maintain a safe and reliable transmission system.[160]

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[155] *Interim Guidelines Order*, at p. 39.
[156] *Interim Guidelines Order*, at p. 39.
[157] *Interim Guidelines Order*, at pp. 39-40 (emphasis added).
[158] *See* Section V.B.1., *supra*.
[159] PPL Electric St. 1, at pp. 4-5.
[160] *See* Section V.B.3.d., *supra*.

Mr. Konidena admitted that Pennsylvania ratepayers benefit from a safe electric transmission system.[161] Similarly, he admitted that they benefit from a reliable electric transmission system.[162] Furthermore, electric transmission lines are a necessary part of the electric grid.[163] PPL Electric has shown that by complying with PJM's Supplemental Process requirements, Pennsylvania ratepayers are protected and, indeed, benefitted.

Therefore, Mr. Konidena's recommendations and the relief sought are not appropriate for the instant LON proceeding.

c. OCA's legal argument that there is not a need for the Project because certain transmission and non-transmission alternatives should be evaluated is unsound

Section 57.76(a)(1) of the Commission regulations requires an electric utility to demonstrate "there is a need for [the proposed HV line]."[164] OCA has conceded that the sole basis for challenging the Stanton-Summit Project is its assertion that there is not a need for the Project under Section 57.76(a)(1).[165]

However, Section 57.76(a)(1) does not use the term "alternative" or "alternatives."[166] Rather, the term "alternatives" only appears in 57.76(a)(4), which requires that an electric utility demonstrate the proposed HV line "will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives."[167]

OCA's attempt to shoehorn an "available alternatives" challenge into a "need" challenge under 52 Pa. Code § 57.76(a)(1) is improper. OCA admitted that its challenge to this proceeding

[161] Tr. 102.
[162] Tr. 102.
[163] Tr. 102.
[164] 52 Pa. Code § 57.76(a)(1).
[165] *See* Section V.B.3.a., *supra*.
[166] 52 Pa. Code § 57.76(a)(1).
[167] 52 Pa. Code § 57.76(a)(4).

was limited to whether there was a need for the Project under 52 Pa. Code § 57.76(a)(1).[168] The plain language of this requirement makes no reference to a consideration of "available alternatives." Rather, the reference to "available alternatives" only appears in 52 Pa. Code § 57.76(a)(4), which OCA's witness admitted he did not render an opinion on.[169] It appears that the OCA has attempted to avoid raising its alternatives challenge in the context of Section 57.76(a)(4), because such a challenge would require an analysis of environmental impacts, which OCA did not perform and, moreover, would instead show that many of the alternatives they have proposed are unreasonable due to the incremental environmental impacts that would result relative to the proposed Project.[170]

Even if the OCA's argument that PPL Electric should be required to consider additional alternatives fell within the ambit of 52 Pa. Code § 57.76(a)(1)—and it does not—this argument simply ignores the regulation's use of the specific phrase term "[t]here is a need for it."[171] "A" need is an indefinite article, meaning that it lacks specificity for the proceeding noun, *i.e.*, "need"; conversely, "the" is a definite article, meaning that the proceeding noun, *i.e.*, "need," would be specific.[172] In arguing that PPL Electric be directed to evaluate additional alternatives—none of which effectively address the underlying need for the Project— the OCA effectively concedes that there is a need under 52 Pa. Code § 57.76(a)(1). Indeed, without an underlying need, *any* alternatives analysis would be superfluous.

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[168] OCA St. 1, at p. 7 (testifying that the OCA "do[es] not believe that PPL Electric has satisfied the need requirement for their proposed Project." (emphasis added)); *see also* PPL Electric St. 1-R, at p. 4, PPL Electric Exhibit JBL-1R, and PPL Electric Cross Exhibit 6.

[169] PPL Electric Cross Exhibit 6; Tr. 107-109. To the extent that OCA attempts to modify its challenge to the Project to encompass 52 Pa. Code § 57.76(a)(4), such a modification would constitute a violation of PPL Electric's due process rights. *See Hess*, 107 A.3d at 266. PPL Electric reserves the right to move to strike and/or reply to any arguments raised by the OCA that the Project does not satisfy 52 Pa. Code § 57.76(a)(4) in its Reply Brief.

[170] *See* Section V.B.3.d.ii.-iv., *infra*.

[171] 52 Pa. Code § 57.76(a)(1) (emphasis added).

[172] *See Patricca v. Zoning Bd. of Adjustment*, 590 A.2d 744, 751 (Pa. 1991) ("The word 'the' is a definite article and is used . . . before a noun, with specifying or particularizing effect, as opposed to the indefinite or generalizing force of the indefinite article 'a' or 'an'") (citations omitted).

While the OCA might dispute the legitimacy of "the" identified need for the Stanton-Summit Project, or believe the need(s) identified by the Company underlying the Project is insufficient, there is no record evidence to indicate the OCA believes there is not "a" need for the Project.[173] Indeed, the OCA acknowledges PPL Electric's identified need, stating that "it is an asset health issue" and a "public safety issue."[174] Simply put, the OCA's reading of 52 Pa. Code § 57.76(a)(1) imports a standard that is at odds with the plain text of the regulation and should be rejected.

For these reasons, OCA's attempt to argue there is not a need for the Project is legally unsound should be rejected.

d. The additional alternatives advanced by OCA provide no basis for concluding there is no need for the Stanton-Summit Project

The OCA argues "PPL [Electric] should be required to evaluate the potential alternatives, including those identified herein, in order for the Commission to fully evaluate PPL[Electric]'s proposed project."[175] OCA witness Mr. Konidena testified that the Commission should require PPL Electric to evaluate and/or transmission alternatives (including Dynamic Line Ratings ("DLR"), increasing the voltage of the existing Stanton-Summit #3 and #4 230 kV Transmission Lines to 500 kV, and the undergrounding of all or portion(s) of the existing Stanton-Summit #3 and #4 230 kV Transmission Lines),[176] and non-transmission alternatives (including the installation of a battery energy storage system ("BESS") at the Summit Substation, and demand response ("DR") and aggregation of distribution energy resources ("DER")).[177] The Commission should not grant the relief sought by OCA.

[173] The OCA apparently concedes as much in its Direct Testimony, explaining that "…PPL [Electric has not adequately investigated all available alternatives, I do not believe that PPL [Electric] has satisfied the need requirement for their proposed Project." *See* OCA St. 1, p. 6.
[174] OCA St. 1, p. 8.
[175] OCA St. 1 at 6.
[176] OCA St. 1 at 25, 26-34.
[177] OCA St. 1 at 25, 35-43.

i. OCA carries the burden of proving its proposed alternatives to the Project should be adopted

It is axiomatic that "the proponent of a rule or order has the burden of proof."[178] While PPL Electric bears the burden of proving that the Project satisfies the requirements of 52 Pa. Code § 57.76(a), and should be approved by the Commission, PPL Electric does not bear the burden of proof with respect to OCA's proposed alternatives. Rather, OCA specifically advanced various alternatives in its own direct testimony that the Commission should "order" PPL Electric to analyze or implement. As the proponent of these alternatives, OCA bears the burden of proving that they are feasible and reasonable.[179] OCA has failed to carry that burden.

ii. OCA's witness admitted that its proposed alternatives are not reasonable and would not constitute "good utility practice" from a cost or reliability perspective

A primary basis for OCA's recommendations is its position that "good utility practice" includes studying non-transmission alternatives and the consideration of "reasonable cost" when evaluating alternatives.[180] However, OCA witness Mr. Konidena admitted on cross-examination that it an alternative that does not address an identified need would not be "reasonable."[181] He also admitted that good utility practice involves pursuing a transmission line rebuild before the subject line or its tower structures fully deteriorate.[182] He further admitted that it is not just good utility practice to comply with NERC standards, but a compliance issue.[183] Moreover, Mr. Konidena admitted that if an alternative to a transmission line rebuild was more expensive than the rebuild itself, it would be less reasonable than the rebuild.[184] Finally, Mr. Konidena admitted

[178] 66 Pa.C.S. § 332(a).
[179] *See* 66 Pa.C.S. § 332(a); *NRG Energy*, 233 A.3d at 950-951 ("If NRG did not bear a burden to present something to support its methodology, it would be difficult, if not impossible, for [utility] to respond with evidence explaining why the alternative should not be accepted").
[180] OCA St. 1, at pp. 24-25.
[181] Tr. 109-110.
[182] Tr. 112-113.
[183] Tr. 113-114.
[184] Tr. 114.

that good utility practice would require a utility to determine if an alternative would have adverse reliability impacts if it was implemented, and that if an alternative to a transmission line rebuild had adverse reliability impacts it would not be a reasonable alternative.[185]

As explained in more detail below, each of the alternatives advanced by OCA is flawed in a specific manner that demonstrates it is unreasonable pursuant to Mr. Konidena's own testimony. Critically, each of the alternatives offered by OCA (except for the substantially more expensive undergrounding alternative) address a "congestion" need rather than the asset health and public safety need driving the Project. Therefore, none of the alternatives advanced can be considered reasonable alternatives to the proposed Project and, if implemented, would not be considered good utility practice.

iii. OCA's proposed transmission alternatives are unreasonable and should be rejected

Dynamic Line Ratings (DLR)

OCA witness Mr. Konidena first recommended that the Commission "should require PPL to provide a complete study on how the use of DLR technology may impact the need for the planned rebuilds of PPL's 230kV system."[186] PPL Electric Mr. Szmodis explained that "DLR is a technology that allows a transmission owner to set conductor ratings based upon real time values" by the use of "sensors on the conductor and sensors at other locations on a transmission line to obtain real time values" of various factors to establish a real-time rating for the conductor.[187] While this grid enhancing technology can be used to increase load capacity and address congestion, it does not address the asset health concern related to the prevalence of pack-out rust on the

[185] Tr. 115
[186] OCA St. 1, at p. 26.
[187] PPL Electric St. 1, at p. 11. Mr. Szmodis further explained that conductor rating is determine by static factors (e.g., conduct material and environment) as will as variable factors (e.g., (e.g., conductor maximum temperature, air temperature, wind speed, emissivity, and sun exposure), and the DLR permits a assumptions regarding these variable factors to instead use real time values.

Stanton-Summit #3 and #4 230 kV Transmission Lines.[188] Mr. Szmodis further explained that DLR "is not a technology that affects the standard steady-state load-flow analysis because you can not rely on a possible increase in conductor rating due to DLR during an electrical system event."[189] Therefore, DLR is neither feasible nor reasonable, and is not an appropriate alternative to the Project.

Upgrading the Stanton-Summit #3 and #4 230 kV Transmission Lines to 500 kV

OCA witness Mr. Konidena also recommended that the "Stanton – Summit 230 kV double circuit could be upgraded to a 500 kV transmission line because of the close proximity to Shickshinny – Lackawanna segment of the Susquehanna – Roseland 500 kV line"[190] and that the Commission "should direct PPL to estimate the benefits of upgrading to a 500 kV solution."[191] PPL Electric witness Mr. Szmodis identified a number of problems with this alternative, which demonstrate that it is not reasonable.

First, Mr. Szmodis explained that "upgrading the existing Stanton-Summit #3 and #4 230 kV Transmission Lines would primarily serve to add more capacity to these lines."[192] However, existing capacity on these lines is more than adequate for existing load and currently projected load growth.[193] Therefore, this alternative would simply add unneeded capacity at substantial additional cost.[194]

Second, this option would require substantial changes to PPL Electric's existing facilities. Both the Stanton Substation and Summit Substation would need 500/230 kV switchyards installed, in order to connect a 500 kV line between these substations and transform power from the 500 kV

[188] *See* PPL Electric St. 2, at p. 12; PPL Electric St. 2-R, at p. 9.
[189] PPL Electric St. 2-R, at p. 9.
[190] OCA St. 1, at p. 28.
[191] OCA St. 1, at p. 30.
[192] PPL Electric St. 2-R, at p. 11.
[193] PPL Electric St. 2-R, at p. 11.
[194] PPL Electric St. 2-R, at p. 11.

system to the 230 kV system.[195] This would require in the acquisition of approximately 20 acres of additional land near each substation.[196] Relatedly, PPL Electric would need to acquire additional ROW to widen the existing corridor to accommodate a new 500 kV line.[197] The need to both expand the substations and acquire and clear additional ROW would result in incremental land impacts compared to the Project.

Third, this alternative would result in the removal of two 230 kV lines and the installation of a single 500 kV line, which would have a dramatic effect on the west to east power flow of the electric transmission system.[198] This would also require a study by PJM, which has not been conducted, to determine its reliability impacts.[199] Critically, Mr. Konidena has conducted no such study,[200] and admitted that such analysis was outside the scope of his engagement by the OCA.[201]

Finally, this alternative would be substantially more costly than the proposed Project. PPL Electric witness Mr. Szmodis estimated the cost to construct two new 500 kV substations and the contemplated transmission line to be approximately $150 million.[202] The Project as proposed is estimated to cost $36.8 million.[203]

Undergrounding Some or All of the Stanton-Summit #3 and #4 230 kV Transmission Lines

OCA witness Mr. Konidena also recommended that the Commission should require PPL Electric should evaluate undergrounding all or a portion of the Stanton-Summit #3 and #4 230 kV

[195] PPL Electric St. 2-R, at p. 12.
[196] PPL Electric St. 2-R, at p. 13.
[197] PPL Electric St. 2-R, at p. 13.
[198] PPL Electric St. 2-R, at pp. 13-14.
[199] PPL Electric St. 2-R, at pp. 13-14.
[200] PPL Electric St. 2-R, at p. 13-14 (citing PPL Electric Exhibits CS-3R and CS-4R).
[201] Tr. 115-116 ("Q. [ATTORNEY LENT] And again, speaking broadly about your Direct Testimony, have you analyzed the impact to the reliability of the transmission system of each alternative proposed in your Direct Testimony relative to the project proposed by PPL Electric? A. [OCA WITNESS MR. KONIDENA] A. No, I have not, because mine is a limited scope, engagement-wise, by the Office of Consumer Advocate. I was only hired to look at whether PPL explored all alternatives. So it's a very limited scope.").
[202] PPL Electric St. 2-R at 13.
[203] PPL Electric St. 1, at p. 12.

Transmission Lines as an alternative to the Project.[204] PPL Electric witness Mr. Szmodis explained that "[i]t is preferred to build a transmission line above-ground when the requisite rights of way ("ROW") are owned or acquirable."[205] This is due to the fact that undergrounding (1) is substantially more costly,[206] (2) would result in incremental ROW and environmental impacts,[207] and (3) would increase the difficulty and expense of performing maintenance and addressing outages.[208] While there may be reliability benefits associated with undergrounding, they are negligible[209] in this circumstance and offset by the fault identification and maintenance issues identified by Mr. Szmodis.[210] Furthermore, OCA witness Mr. Konidena did not actually analyze the reliability impacts of this alternative.[211]

Finally, undergrounding a portion of the line(s) would result in the worst of both overhead and underground construction. PPL Electric witness Mr. Szmodis explained that undergrounding a portion of the line would only make the Project more expensive with no ascertainable reliability benefit.[212]

iv. OCA's proposed non-transmission alternatives are not feasible or reasonable

Installation of a Battery Energy Storage System (BESS) at the Summit Substation

OCA witness Mr. Konidena also proposed that a BESS located at the Summit Substation with a rating of 26.2 MW/104.8 MWh is a potential alternative to the Project.[213] Mr. Szmodis showed that installation of a BESS was not a reasonable alternative for a number of reasons.

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[204] *See* OCA St. 1, at pp. 31, 33, 34. Mr. Konidena attempts to indicate he is not endorsing the undergrounding option. OCA St. 1, at p. 34. However, he stated that this option is "an alternative" to the Project. OCA St. 1, at p. 34.
[205] PPL Electric St. 2, at p. 8.
[206] PPL Electric St. 2, at p. 8 (comparing the $14.8-$24 million mile cost of underground a 69 kV transmission project to the $3-$5 million per mile cost of constructing an overhead 230 kV transmission line).
[207] PPL Electric St. 2, at p. 9; PPL Electric St. 2-R, at p. 17.
[208] PPL Electric St. 2-R, at p. 18.
[209] PPL Electric St. 2-R, at pp. 18-19.
[210] PPL Electric St. 2-R, at pp. 18-19.
[211] *See* footnote 205, *supra*.
[212] PPL Electric St. 2-R, at p. 20.
[213] OCA St. 1, at pp. 35-36.

First, the BESS would primarily address congestion concerns.[214] These concerns are unrelated to the asset health and public safety concerns that are driving the Project. In addition, a BESS sufficient to serve the load served by the Stanton-Summit #3 and #4 230 kV Transmission Lines for four hours would cost approximately $287 million.[215] Moreover, "[a] BESS with enough capacity to reliably replace the Stanton-Summit Transmission lines would cost billions of dollars."[216] Therefore, this alternative would target a non-existent concern, while being substantially more expensive and failing to address the underlying need for the Project.

Second, the BESS alternative rating used by Mr. Konidena (i.e., 26.2 MW/104.8 MWh) is flawed and inconsistent with standard industry transmission planning practices. Mr. Szmodis explained that "[o]n a peak system load day with all equipment in service, there is about 26.2 MW on each of these transmission lines."[217] If the Stanton-Summit #3 and #4 230kV Transmission Lines were removed, then having equipment out of service would require a BESS to serve 287 MW of flow at the subject transmission substations. The BESS alternative proposed by Mr. Konidena would also be substantially more expensive.

Third, the BESS alternative proposed by OCA would require the acquisition of additional land at the Summit Substation.[218] This would result in incremental land impacts which do not exist today, and which Mr. Konidena has not accounted for in his testimony.

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[214] PPL Electric St. 2-R, at pp. 21-22 (citing *The Economics of Battery Energy Storage*, Rocket Mountain Institute, p. 16 (October 2015), https://rmi.org/wp-content/uploads/2017/03/RMI-TheEconomicsOfBatteryEnergyStorage-FullReport-FINAL.pdf; *Spatiotemporal Arbitrage of Large-Scale Portable Energy Storage for Grid Congestion Relief*, Guannan He, Da Szhang, Xidong Pi, Qixin Chen, Sounmya Kar, Jay Whitacre, https://arxiv.org/ftp/arxiv/papers/1811/1811.09924.pdf; *Evaluation of Energy Storage Providing Virtual Transmission Capacity*, Tu A. Nguyen, Raymond H. Byrne, https://www.osti.gov/servlets/purl/1884172).
[215] PPL Electric St. 2, at p. 11. Mr. Szmodis further explained that, due to the nature of transmission outages, a BESS would need to operate for more than 4 hours, which would further increase the costs. PPL Electric St. 2-R, at p. 25.
[216] PPL Electric St. 2-R, at p. 23.
[217] PPL Electric St. 2-R, at p. 24.
[218] PPL Electric St. 2-R, at p. 22.

Finally, a BESS would add unnecessary operational complexity.[219] As Mr. Szmodis testified, "Although work is being done on batteries being used on the transmission system (the so-called Storage as a Transmission Only Asset or SATOA initiatives), there are not appropriate tariff structures in place to enable this at this time."[220] OCA witness Mr. Konidena also testified that transmission utilities are "not well-positioned" to own BESS,[221] further undermining his claim that PPL Electric should consider this alternative.

Demand Response (DR)/Distributed Energy Resource (DER)

OCA witness Mr. Konidena also claimed that "[a] combination of Demand Response and DERs with the right BESS size could defer the need to rebuild Stanton lines until a longer-terms solution is in place, such as an underground transmission line or a 500 kV overhead line."[222] As with many of OCA's other alternatives, neither DR or DER serves to address the asset health and public safety concerns driving the Project; rather, they address congestion by reducing demand on the transmission grid.[223] Mr. Konidena seems to recognize that these alternatives are not feasible, and admits that "[a]ggregation of DERs cannot replace the need for a transmission line."[224] Furthermore, Mr. Szmodis explained that an attempt to remove the Stanton-Summit #3 and #4 230 kV Transmission Lines from service, would result in low-voltage violations and overload violations that could not be resolved through DR and DER under NERC Standard TPL-001.[225]

v. PPL Electric analyzed OCA's proposed alternatives during the course of this proceeding and demonstrated that they are not feasible or reasonable

OCA's primary concern appears to be that the "existing PJM processes do not provide a

[219] PPL Electric St. 2-R, at p. 23.
[220] PPL Electric St. 2-R, at p. 23.
[221] Tr. 117.
[222] OCA St. 1, at pp. 41-42.
[223] PPL Electric St. 2-R, at p. 27.
[224] OCA St. 1, at p. 42.
[225] PPL Electric St. 2-R, at p. 28.

robust evaluation of potential alternatives and thus do not adequately protect PA ratepayers."[226] Therefore, it argues, "PPL should be required to rigorously evaluate the potential alternatives, including those identified herein, in order for the Commission to fully evaluate PPL's proposed project."[227]

OCA's concern and the relief it requests simply ignore the fact that PPL Electric analyzed and evaluated all alternatives raised during the course of this proceeding. As succinctly summarized by PPL Electric witness Mr. Szmodis, "after receiving and responding to discovery requests from the OCA regarding the Company's consideration of these alternatives, the Company anticipated that OCA might attempt to propose specific alternatives to the Project."[228] Mr. Szmodis then explained how "PPL Electric reviews its transmission and distribution systems, and considers alternatives other than the construction of overhead transmission and distribution lines to address the needs of the system" and "why each of the presented alternatives was not a feasible or reasonable alternative in the context of the above-captioned LON."[229] Mr. Szmodis then went on to further rebut OCA's direct testimony regarding each of the proposed transmission and non-transmission alternatives, as explained above.[230]

During cross examination, OCA witness Mr. Konidena recognized that PPL Electric has evaluated the alternatives proposed by OCA during the course of this proceeding. After admitting that he had reviewed PPL Electric's direct testimony, its rebuttal testimony, and its responses to discovery requests, Mr. Konidena testified as follows:

> Q. [ATTORNEY LENT] And so my question to you, Mr. Konidena is, during the course of this proceeding, hasn't PPL Electric reviewed each of the alternatives that you proposed in your Direct Testimony?

[226] OCA St. 1, at pp. 5-6.
[227] OCA St. 1, at p. 44.
[228] PPL Electric St. 2-R, at pp. 5-6.
[229] PPL Electric St. 2-R, at pp. 5-6.
[230] PPL Electric St. 2-R, at pp.

> A. [ATTORNEY LENT] Yes and no. I think basically you're saying yes, PPL has reviewed these options, but PPL has reviewed these options within the context of the data request.

While he tried to qualify this testimony by stating that PPL Electric "has not provided these options initially when they provided their testimony," the fact remains that PPL Electric thoroughly analyzed these alternatives when OCA raised them in the context of this proceeding and demonstrated none were reasonable as compared to the Project. Therefore, OCA's basis for its concerns regarding the evaluation of alternatives—while lacking in merit—has been fully addressed during the course of this proceeding.

4. Conclusion Regarding Project Need

PPL Electric has demonstrated that the Stanton-Summit Project is needed to immediately resolve the identified asset health and public safety concerns associated with the existing COR-TEN® lattice towers that comprise the Stanton-Summit #3 and #4 230 kV Transmission Lines. Importantly, OCA does not dispute this need and admits that the prevalence of pack-out rust on the existing structures constitutes an asset health and public safety concern. While the OCA has advanced a number of alternatives to the Project as proposed, OCA has failed to demonstrate that any of its proposed alternatives are reasonable. Rather, as explained above, OCA's challenge to the need for the Project is improper and legally unsound, and the alternatives advanced by the OCA are undermined by the testimony of its own witness. Moreover, even if OCA's concerns regarding the need for PPL Electric to evaluate additional alternatives were valid—and they are not—PPL Electric addressed these concerns by thoroughly evaluating each alternative advanced by the OCA during the course of this proceeding. Therefore, and for the reasons more fully explained in the PPL Electric's testimony and exhibits, the ALJs and the Commission should find and determine that there is a need for the Stanton-Summit Project.

C. THE STANTON-SUMMIT PROJECT WILL NOT CREATE AN UNREASONABLE RISK OF DANGER TO THE HEALTH AND SAFETY OF THE PUBLIC

The second requirement under Section 57.76 of the Commission's regulations for approval of the siting and construction – or rebuild – of transmission lines is that the project will not create an unreasonable risk of danger to the health and safety of the public. As explained below, the Project will be designed, constructed, and maintained to ensure the health and safety of the public.

1. The Rebuilt Transmission Lines Associated With The Stanton-Summit Project Will Meet And Exceed The NESC Standards

The rebuilt Stanton-Summit #3 and #4 230 kV Transmission Lines associated with the Stanton-Summit Project will be designed, constructed, operated, and maintained in a manner that meets or surpasses all applicable NESC minimum standards and all applicable legal requirements.[231] The Commission has held in numerous cases that transmission lines that meet or exceed the NESC requirements do not create an unreasonable risk of danger to the health and safety of the public.[232]

In addition to the safety features incorporated by designing the line in accordance with or in excess of the NESC, PPL Electric designs and constructs projects with high regard to both public and employee safety and follows or exceeds all codes and requirements.[233] PPL Electric's safety rules include: procedures to allow work to be performed on energized facilities in a safe manner, including specific tagging procedures; the use of temporary safety grounds on de-energized facilities for employee lineman safety during maintenance, construction, or reconstruction work;

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[231] PPL Electric St. 1, at p. 16.

[232] *See, e.g.*, *Application of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa. Code Chapter 57, Subchapter G, for Approval of the Siting and Construction of the Pennsylvania Portion of The Proposed Susquehanna-Roseland 500 kV Transmission Line*, Docket Nos. A-2009-2082652, *et al.*, 2010 Pa. PUC LEXIS 434 at *166 (Opinion and Order entered Feb. 12, 2010); *Application of PP&L for Approval to Locate and Construct a 138 kV Transmission Line Between West Allentown and Salisbury Substations*, Docket No. A-00104160 (Order dated July 20, 1984); *Application of PP&L for Authorization to Locate and Construct its Hamlin 138 kV Electric Transmission Line*, Docket No. A-00101826 (Order entered Apr. 3, 1981); *Larken v. Philadelphia Electric Co.*, 39 Pa. PUC 777 (1961).

[233] PPL Electric Exhibit JBL-4, at p. 4.

pre-grounding voltage tests to confirm a line is de-energized; pre-climbing inspection of pole and/or structure integrity; and the required use of appropriate safety gear.[234]

2. The Application Adequately Addresses Electric And Magnetic Field Mitigation

The Commission has found that electric and magnetic fields (also referred to jointly as electromagnetic fields or "EMF") from transmission lines do not pose a danger to the health and safety of the public.[235] Nevertheless, PPL Electric has taken EMF mitigation into account.[236]

Ground clearances for the proposed Project will be increased between approximately 3.0 and 7.0 feet higher than those required by the NESC standard in order to reduce the magnetic field exposure.[237] The proposed rebuild of the Stanton-Summit #3 and #4 230 kV Transmission Lines will continue to allow for double-circuit operation, which will allow for reverse phasing.[238] A reduction in magnetic field exposure is anticipated due to the higher ground clearances and reverse phasing.[239]

3. PPL Electric's Evidence Regarding Health And Safety Is Undisputed

Importantly, no party has challenged PPL Electric's evidence showing that Project will not create an unreasonable risk of danger to the health and safety of the public. The only other active party in this proceeding, the OCA, did not present testimony disputing otherwise.[240] Indeed, PPL Electric delineated various health and safety concerns that guided the Company during its evaluation of potential alternatives to the Project.[241]

4. Conclusion Regarding Health And Safety

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[234] PPL Electric Exhibit JBL-4, at pp. 4-5.
[235] *Application of Pennsylvania Power & Light Co.*, Docket Nos. A-110500F0196, *et al.*, 1994 Pa. PUC LEXIS 65, *67 (Initial Decision issued Oct. 21, 1994) ("Based on the extensive scientific evidence developed to date, which has been discussed in the preceding section, it is clear that EMF should not be regarded as a health hazard.").
[236] PPL Electric St. 1, at pp. 16-17; *see also* PPL Electric Exhibit JBL-4, at p. 5.
[237] PPL Electric St. 1, at pp. 16-17; *see also* PPL Electric Exhibit JBL-4, at p. 5.
[238] PPL Electric St. 1, at pp. 16-17; *see also* PPL Electric Exhibit JBL-4, at p. 5.
[239] PPL Electric St. 1, at pp. 16-17; *see also* PPL Electric Exhibit JBL-4, at p. 5.
[240] *See generally* OCA St. 1.
[241] *See* PPL Electric Exhibit JBL-1, at pp. 12-15.

The undisputed evidence presented by PPL Electric satisfies the criteria set forth in Section 57.76(a)(2) of the Commission's regulations and demonstrated that the Stanton-Summit Project will not create an unreasonable risk of danger to the health and safety of the public.[242] Therefore, and for the reasons more fully explained above, the ALJs and the Commission should find that the Stanton-Summit will not create an unreasonable risk of danger to the health and safety of the public, pursuant to 52 Pa. Code § 57.76(a)(2).

D. THE STANTON-SUMMIT PROJECT IS IN COMPLIANCE WITH APPLICABLE STATUTES AND REGULATIONS PROVIDING FOR THE PROTECTION OF NATURAL RESOURCES

The third requirement under Section 57.76 of the Commission's regulations for approval of the siting and construction of transmission lines is that the project is in compliance with applicable statutes and regulations, providing for the protection of the natural resources of this Commonwealth.[243] Although it is not an environmental permitting agency, the Commission is required to comply with the directives set forth in Article I, Section 27 of the Pennsylvania Constitution, *i.e.*, the Environmental Rights Amendment.[244] In carrying out these obligations, the Commonwealth may subject the individual rights of citizens to clean air, pure water, and to the preservation of natural, scenic, historic, and esthetic values to reasonable regulation.[245]

PPL Electric has provided information on regulatory permit requirements and agency coordination regarding cultural and environmental resources.[246] This information effectively addresses and exceeds all the requirements of the Commission's regulations.

[242] 52 Pa. Code § 57.76(a)(2).
[243] 52 Pa. Code § 57.76(a)(3).
[244] *PEDF*, 161 A.3d at 931.
[245] *PEDF*, 161 A.3d at 931; *see also Penelec*, at pp. 12-14.
[246] PPL Electric Exhibit JBL-3, at pp. 3-8; *see also* PPL Electric St. 1.

Indeed, PPL Electric witness Mr. Joseph B. Lookup explained PPL Electric's analysis of environmental and land use impacts contained in Attachment 3 – Description of Project Area.[247] Importantly:

- The proposed Project will not affect any national parks, state parks, local parks, recreational areas, or natural landmarks. None of these features are located within the Project Area. Review of the National Conservation Easement Database and PA Conserved Lands websites notes that no conserved lands are crossed by the Project;[248]

- No State Historic Preservation Office ("SHPO") listed or eligible properties are crossed by the Project but the Bedell-Courtright Farmstead (SHPO resource Number 2011RE00513) borders the north side of the ROW along Ransom Road in the central portion of the Project Area. No effect to this resource is anticipated by the proposed Project activities;[249]

- No unique geological, scenic, or natural areas are located within the Project Area;[250]

- A Pennsylvania Natural Diversity Inventory ("PNDI") was run for the Project on October 8, 2021, to assess the potential presence of threatened and endangered species and/or special concern species. Specific agencies reviewing the Project included the following:

    1. Pennsylvania Game Commission,

    2. Pennsylvania Fish and Boat Commission,

    3. Pennsylvania Department of Conservation and Natural Resources, and

    4. U.S. Fish and Wildlife Service.[251]

- PDCNR is the only agency that responded with potential threatened and endangered species concerns within the Project Area. Surveys for the identified plant species of concern were conducted in spring and fall 2022. The specific plant species identified by PDCNR were not found in the Project Area, but a different plant species of concern was found in a location that will not be affected by Project activities. PPL Electric will continue to consult with the PDCNR regarding avoidance of this protected species.[252]

[247] *See generally* PPL Electric St. 1.
[248] PPL Electric St. 1, at p. 18.
[249] PPL Electric St. 1, at p. 18.
[250] PPL Electric St. 1, at p.19.
[251] PPL Electric St. 1, at pp. 20-21.
[252] PPL Electric St. 1, at pp. 20-21.

Attachment 3 – Description of Project Area further demonstrates that the Project will not impact various environmental resources, cultural resources and land uses, or that PPL Electric has coordinated (or will coordinate) with the appropriate state and/or federal agencies to obtain all necessary permits.[253]

While all transmission lines will have some impact to the natural and/or human environment, it is important to recognize that the Project is limited to rebuilding existing transmission lines located entirely within the ROW, which is currently dedicated to utility use and occupied by transmission lines. No portion of the Project will be located outside of the existing ROW, nor will the Project substantially alter the existing ROW. Furthermore, the Project will also decrease the maximum height and average height of towers,[254] and decrease the ground impacts of the structures comprising the Stanton-Summit #3 and #4 230 kV Transmission Lines.[255]

Moreover, the need for a siting study is obviated by the fact that any alternative route would require the location of transmission lines where none presently exist. In this regard, the existing ROW would have fewer environmental impacts and constitute the preferred ROW in comparison to other reasonable alternatives.

PPL Electric has also committed to obtain all required permits prior to construction of the Project, and will comply with any and all conditions placed on such permits by those agencies that have appropriate jurisdiction over environmental matters.[256] As a general matter, the Commission has found compliance with the applicable environmental statutes and regulations where the

[253] *See* PPL Electric St. 1, at p. 21 (presenting Attachment 3 – Project Area Description).
[254] PPL Electric St. 1, at pp. 15-16; *See also* PPL Electric Exhibit JBL-2. The existing COR-TEN® lattice tower structures range in height from between approximately 120-170 feet with an average structure height of approximately 144 feet. The proposed double-circuit monopole structures to replace the COR-TEN® lattice towers will range in height between approximately 110 and 165 feet with an average structure height of approximately 140 feet.
[255] PPL Electric St. 1, at pp. 15-16. The existing COR-TEN® lattice towers have a wider base than the proposed steel monopoles.
[256] PPL Electric St. 1, at p. 6; PPL Electric Exhibit JBL-3, at pp. 3-7.

applicant agrees to obtain any and all environmental permits necessary prior to construction and to comply with any conditions on those permits during construction.[257]

Finally, at no point during this matter did the OCA contend that the Project was or is in violation of applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth. In this regard, PPL Electric's evidence regarding 52 Pa. Code § 57.76(a)(3) is undisputed.

Therefore, and for the reasons more fully explained above, the ALJ and the Commission should find that PPL Electric has demonstrated the Project complies with applicable statutes and regulations providing for the protection of the natural resources of the Commonwealth, pursuant to 52 Pa. Code § 57.76(a)(3) and *PEDF*.

E. THE STANTON-SUMMIT PROJECT WILL HAVE MINIMUM ADVERSE ENVIRONMENTAL IMPACTS

The Commission's law and policy regarding the siting of HV transmission lines also require an electric utility to show that an HV transmission line will have minimum adverse environmental impacts considering the electric power needs of the public.[258] Importantly, a utility is not required to conduct a siting study or to evaluate alternative routes for an HV transmission line project that is the subject of a Letter of Notification.[259] PPL Electric has (a) presented clear

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[257] *See, e.g., Application of Pennsylvania Electric Company For Approval to Locate and Construct the Bedford North-Osterburg East 115 kV HV Transmission Line Project Situated in Bedford and East St. Clair Townships, Bedford County, Pennsylvania*, Docket Nos. A-2011-2247862, *et al*., 2012 Pa. PUC LEXIS 298 at *61 (Initial Decision Feb. 9, 2012) (Opinion and Order Denying Exceptions entered June 7, 2012); *Application of Trans-Allegheny Interstate Line Company for the Approval to Locate, Construct, Operate and Maintain Certain High Voltage Electric Transmission Line Facilities and to Exercise the Power of Eminent Domain to Construct and to Install the Proposed Aerial Electric Transmission Line Facilities Along the Proposed Route, Being a 138 kV Transmission Line and Related Facilities Collectively, the Osage-Whiteley Line Facilities or Project, in Portions of Dunkard Township, Perry Township, and Whiteley Township, Greene County in Southwestern Pennsylvania*, Docket Nos. A-2010-2187540, *et al*., 2011 Pa. PUC LEXIS 2028 (Recommended Decision issued Mar. 28, 2011) (Opinion and Order entered Mar. 15, 2012); *Application of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa. Code Chapter 57, Subchapter G, for Approval of the Siting and Construction of the Pennsylvania Portion of The Proposed Susquehanna-Roseland 500 kV Transmission Line*, Docket Nos. A-2009-2082652, *et al*., 2010 Pa. PUC LEXIS 434 at *191-201 (Opinion and Order entered Feb. 12, 2010).

[258] *See, e.g.*, 52 Pa. Code § 57.76(a)(4).

[259] *See* 52 Pa. Code § 57.72(d)(4).

evidence that demonstrates the Project will have a minimum adverse environmental impact, and (b) rebutted the OCA's unsubstantiated recommended potential alternatives to the Project. Therefore, the ALJs and the Commission should find and determine, consistent with the Commission's existing HV transmission line siting regulations, that the Project will have minimum adverse environmental impacts considering the electric needs of the public.

Here, PPL Electric has demonstrated that the Stanton-Summit Project will have minimum adverse environmental impacts. Importantly, the Project involves the construction of an HV Transmission Line that is less than 8 miles in length,[260] and that will be constructed within an existing electric transmission ROW.[261] These features of the Project alone are the types of features that have previously led the Commission to conclude an HV transmission line will have minimum adverse environmental impacts.

PPL Electric also demonstrated the proposed location for the Project is optimal and minimizes potential impacts. PPL Electric witness Mr. Lookup explained:

> [T]he proposed rebuild Project is to take place entirely within the Company's existing ROW where the Stanton-Summit #3 and #4 230 kV Transmission Lines are already located. Thus, a rebuild within the same ROW containing existing structures will have minimum environmental impacts compared to any greenfield transmission line construction alternative, or any other alternative that would require new construction outside of the existing ROW. As such, an analysis of alternative routes would be redundant, at best.[262]

Mr. Lookup went on to explain that:

> PPL Electric's environmental evaluation of the project area included identification and identification of impacts to cultural resources, unique geological, scenic, natural areas, wetlands, waterways, and threatened or endangered species as explained above. Moreover, it is important to emphasize that because the proposed Project does

[260] PPL Electric St. 1, at pp. 5-6 ("The Project proposes to rebuild approximately 7.7 miles of existing double-circuit 230 kV transmission lines that connect the Stanton Substation and Summit Substation, i.e., the Stanton-Summit #3 and #4 230 kV Transmission Lines.")
[261] PPL Electric St. 1, at p. 22.
[262] PPL Electric St. 1, at p. 22.

> not contemplate development outside of the existing HV transmission line ROW, all else being equal, it will result in fewer environmental impacts than alternatives that involve greenfield construction of transmission infrastructure where none currently exists.[263]

Mr. Lookup also noted that there were no conditions imposed by any permitting agencies for the Project related to environmental concerns.[264] The Project – and PPL Electric's analysis under the applicable regulation – as to environmental impacts is undisputed and, for that reason, the Commission should find that the Project comports with the directive of 52 Pa. Code § 57.76(a)(4).

[263] PPL Electric St. 1, at pp. 22-23.
[264] PPL Electric St. 1, at p. 23.

VI. CONCLUSION

WHEREFORE, PPL Electric Utilities Corporation respectfully requests that Administrative Law Judges Mark A. Hoyer and Darlene Heep, and the Pennsylvania Public Utility Commission:

- (1) approve the above-captioned "Letter Of Notification Of PPL Electric Utilities Corporation, Filed Pursuant To 52 Pa. Code Chapter 57 Subchapter G, For Approval To Rebuild The Existing Double-Circuit Stanton-Summit #3 And #4 230 kV Transmission Lines Connecting the Stanton 230 kV Substation And A Two-Pole Turn Structure That Are Respectively Located In Luzerne And Lackawanna Counties, Pennsylvania"; and

- (2) grant such other approvals and/or waivers as are necessary or appropriate under all of the circumstances.

Respectfully submitted,

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Date: September 15, 2023

Attorneys for PPL Electric Utilities Corporation

APPENDIX A

PROPOSED FINDINGS OF FACT

APPENDIX A
PROPOSED FINDINGS OF FACT

PPL Electric Utilities Corporation ("PPL Electric" or "Company"), proposes the following findings of fact:

A. BACKGROUND

1. PPL Electric furnishes electric service to approximately 1.4 million customers throughout its certificated service territory, which includes all or portions of twenty-nine counties and encompasses approximately 10,000 square miles in eastern and central Pennsylvania.

2. PPL Electric is a public utility that provides electric distribution, transmission, and provider of last resort services in Pennsylvania subject to the regulatory jurisdiction of the Commission.

3. PPL Electric is also a "public utility" as defined by the Federal Power Act, 16 U.S.C. § 824(e), a transmission owner, and a member of PJM Interconnection, L.L.C. ("PJM").

4. PPL Electric proposes to rebuild the existing Stanton-Summit #3 and #4 230 kV Transmission Lines associated with the Stanton-Summit Project. The Stanton-Summit Project involves rebuilding the existing double circuit Stanton-Summit #3 and #4 Transmission Lines connecting the Stanton 230 kV Substation ("Stanton Substation") and a two-pole structure (Structures 56275-N-4751(L)/56274-N-47518(R)) located approximately 1.4 miles north of the Summit 230-69 kV Substation that are respectively located in Luzerne and Lackawanna Counties, Pennsylvania.[1]

[1] PPL Electric St. No. 1, at p. 2.

B. THERE IS A NEED FOR THE STANTON-SUMMIT PROJECT

5. PPL Electric has a responsibility to provide transmission assets and maintain them in an adequate, efficient, safe, reliable, and reasonable manner to meet the needs of the electric system and the expectations of its customers.[2]

6. PPL Electric applies its Transmission Asset Management Procedure as part of its system performance and condition assessment process.[3]

7. These performance and condition assessments identify system needs and prioritize projects based on several variables such as equipment age, condition, maintenance schedule, and impact on system reliability and asset performance to ensure a reliable electric grid and service to its customers.[4]

8. System needs are identified using the Company's Transmission Asset Management Procedure based on the overarching goals of reducing outage frequency and duration, improving system reliability, decreasing system maintenance cost, and maintaining operational flexibility to ensure safe and reliable electric service of the transmission system and to PPL Electric's customers.[5]

9. PPL Electric witness Mr. Joseph B. Lookup explained PPL Electric's role as a member of PJM.[6]

10. The Stanton-Summit Project is a Supplemental Project.[7]

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[2] PPL Electric St. No. 1, at p. 3.
[3] PPL Electric St. No. 1, at p. 3.
[4] PPL Electric St. No. 1, at p. 3.
[5] PPL Electric Exhibit No. JBL-1, at p. 4.
[6] PPL Electric St. No. 1, at pp. 4-5.
[7] PPL Electric St. No. 1, at p. 14.

11. Mr. Lookup explained that PPL Electric presented its plan to address COR-TEN® needs on the 230 kV system at the October 2020 PJM TEAC meeting.[8]

12. As a part of this presentation, the Company shared the need with PJM stakeholders to address COR-TEN® towers on the Stanton-Summit #3 and #4 230 kV Transmission Lines (need # PPL-2020-0006).[9]

13. The Stanton-Summit Project was developed consistent with the PPL Electric's comprehensive transmission planning process and was reviewed by PJM stakeholders and included in PJM's RTEP as project s2367.[10]

14. The Stanton-Summit Project is required to address the substantial prevalence of pack-out rust in the existing COR-TEN® lattice towers that comprise the existing Stanton-Summit #3 and #4 230 kV Transmission Lines.[11]

15. The Stanton-Summit Project will rebuild the existing double-circuit Stanton-Summit #3 and #4 230 kV Transmission Lines.[12]

16. The existing transmission lines are approximately 7.7 miles long and connect the Stanton Substation and Summit Substation.[13]

17. All the COR-TEN® lattice structures as well as the conductor at the 46 locations will be replaced.[14]

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[8] PPL Electric St. No. 1, at p. 14.
[9] PPL Electric St. No. 1, at p. 14.
[10] PPL Electric St. No. 1, at p. 14.
[11] PPL Electric St. No. 1, at p. 10.
[12] PPL Electric St. No. 1, at p. 12; PPL Electric Exhibit JBL-1, at p. 16.
[13] PPL Electric St. No. 1, at p. 5.
[14] PPL Electric St. No. 1, at p. 12; PPL Electric Exhibit JBL-1, at p. 2.

18. The weathering-steel lattice towers that comprise the Stanton-Summit #3 and #4 230 kV Transmission Lines were originally constructed in the early 1970s.[15]

19. COR-TEN® lattice towers were commonly installed by the industry during this time because it was believed that the corrosion-resistant properties of weathering-steel would reduce future maintenance needs/costs.[16]

20. These towers had an expected service life of approximately 75 years at the time they were installed.[17]

21. In 2013, PPL Electric utilized a third-party contractor to perform an assessment of the COR-TEN® lattice structures on its 230 kV transmission lines under a steel structure capital maintenance program.[18]

22. The assessment identified that 126 of 131 COR-TEN® structures (96%) inspected as a part of this assessment had one or more structure legs rated Condition C (poor) or Condition D (very poor); relatedly, twenty-five structures had one or more legs that were identified as "priority" and required immediate attention, and protective coating was applied to the 101 other non-priority structures.[19]

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[15] PPL Electric St. No. 1, at p. 6; PPL Electric Exhibit JBL-1, at p. 6.
[16] PPL Electric Exhibit JBL-1, at p. 6.
[17] PPL Electric St. No. 1, p. 6; PPL Electric Exhibit JBL-1, at p. 5.
[18] PPL Electric St. No. 1, at p. 7. PPL Electric explain the evaluation performed by the contractor in greater detail in Attachment 1 – Necessity Statement. *See* PPL Electric Exhibit JBL-1, at p. 6.
[19] PPL Electric St. No. 1, at p. 7.

23. The asset health concerns revealed by the 2013 inspection were further heightened by the discovery of pack-out rust in the section joints of the COR-TEN® lattice towers. [20]

24. The negative impacts of pack-out rust on COR-TEN® structures have diminished the expected service life the existing COR-TEN® lattice towers that comprise the Stanton-Summit #3 and #4 230 kV Transmission Lines from 75 to 50 years.[21]

25. These structures have effectively reached end-of-life.[22]

26. PPL Electric subsequently contracted three additional independent, non-affiliated inspection companies to conduct evaluations of COR-TEN® lattice towers and determine the overall condition of these towers on the PPL Electric Transmission System in 2019.[23]

27. The contractors' reports revealed that "over 90% of the joints at each structure exhibited visible pack-out in the connections."[24]

28. In addition, the reports showed that pack-out rust and section-loss was most prominent on the lower portions of the towers where there was higher likelihood of moisture build up.[25]

29. Another evaluation of COR-TEN® lattice towers was initiated in early 2020 to determine the full extent of the deterioration on the transmission system.[26]

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[20] PPL Electric Exhibit JBL-1, at p. 6 (emphasis added).
[21] PPL Electric Exhibit JBL-1, at p. 7.
[22] PPL Electric Exhibit JBL-1, at p. 7.
[23] PPL Electric St. No. 1, at p. 7. The details of how these inspections were performed are explained in Attachment 1 – Necessity Statement. PPL Electric Exhibit JBL-1, at p. 8.
[24] PPL Electric St. No. 1, at p. 8 (emphasis added).
[25] PPL Electric St. No. 1, at p. 8.

30. PPL Electric's Data Analytics Team used a statistical analysis and model to comprehensively determine the overall condition of the COR-TEN® lattice towers in a cost-efficient manner.[27]

31. The results of the 2020 inspection program confirmed the severity of deterioration noted during the 2019 inspection.[28]

32. PPL Electric retained RTR Energy Solutions, Inc. ("RTR") to prepare a condition assessment of the Stanton-Summit #3 and #4 230 kV Transmission Lines in October 2021.[29]

33. RTR's assessment analyzed each joints of all 46 structures that comprise this transmission line.[30]

34. Each structure was then assessed with a condition rating of "Mild" (less than 25% of total joints contain pack rust), "Moderate" (more than 25% but less than 50% of total joints contain pack rust), or "Severe" (more than 50% of total joints contain pack rust).[31]

35. The majority of the pack-out rust was observed in the lower sections of the post legs where horizontal and diagonal members are bolted to the post leg.[32]

36. No structures were in "Mild" condition and "the average percentage of total joints containing pack rust is approximately 46%. This shows that the average structure that is

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[26] PPL Electric St. No. 1, at p. 8.
[27] PPL Electric St. No. 1, at p. 8.
[28] PPL Electric St. No. 1, at p. 8.
[29] PPL Electric St. No. 1, at p. 9.
[30] PPL Electric St. No. 1, at p. 9.
[31] PPL Electric St. No. 1, at pp. 9-10; PPL Electric Exhibit JBL-1, at p. 10.
[32] PPL Electric Exhibit JBL-1, at p. 10.

classified as moderate in the assessment is very close to being considered 'severe' and the condition of the structures on the line are overall more severe"[33]

37. At roughly 50 years of age, the COR-TEN® lattice towers that comprise the Stanton-Summit #3 and #4 230 kV Transmission Lines have exceeded their useful life and can no longer be relied upon to safely operate as designed.[34]

38. Possible shearing of bolts, members disconnecting from lattice towers, or complete tower failure pose a major safety risk to both the public and PPL Electric employees.[35]

39. Mr. Lookup explained that "if these transmission lines fail, it is expected that the service of approximately 34,968 customers would be impacted for the next contingency."[36]

40. Customers impacted would include "customers such as Williams Pipeline Compressor Station 605 and Metropolitan Insurance."[37]

41. The risks of structure failure increase where a wind event impacts a structurally compromised COR-TEN® lattice tower.[38]

42. The Project will immediately and fully resolve the deteriorated condition of the existing structures on a long-term basis by removing the existing COR-TEN® lattice towers and replacing them with steel monopoles.[39]

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[33] PPL Electric Exhibit JBL-1, at p. 10.
[34] PPL Electric St. No. 1, at p. 10; PPL Electric Exhibit JBL-1, at p. 11.
[35] PPL Electric St. No. 1, at p. 10; PPL Electric Exhibit JBL-1, at p. 11.
[36] PPL Electric St. No. 1, at p. 11; *see also* PPL Electric Exhibit JBL-1, at p. 5.
[37] PPL Electric St. No. 1, at p. 11; *see also* PPL Electric Exhibit JBL-1, at p. 5.
[38] PPL Electric Exhibit JBL-1, at p. 11.
[39] PPL Electric St No. 1, at p. 11.

43. By rebuilding these structures, PPL Electric will resolve the existing COR-TEN® issue and avoid the possibility of the issue worsening and/or recurring with respect to these structures and developing into both a reliability and public safety issue.[40]

44. PPL Electric evaluated three potential solutions to address the degrading health of the Stanton-Summit #3 and #4 230 kV Transmission Lines.[41]

45. The first alternative PPL Electric considered was to replace each of the existing COR-TEN® lattice towers with new standard lattice tower structures.[42]

46. The second alternative considered by PPL Electric was to remediate the entire lattice tower line, which would include replacing badly damaged members with galvanized steel members, installing new hardware and spacers, and cleaning pack-out from affected joints.[43]

47. The proposed rebuild is more cost-effective and much less risky than the remediation alternative.[44]

48. Concerns regarding (1) the lack of full-remediation experience with COR-TEN® lattice towers, (2) the lack of evidence of the long-term remediation effectiveness for COR-TEN® lattice towers, and (3) the possible return of pack-out rust in the joints of remediated COR-TEN® lattice tower structures, are fully avoided by the proposed rebuild contemplated by the Project.[45]

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[40] PPL Electric Exhibit JBL-1, at pp. 12-13.
[41] PPL Electric Exhibit JBL-1, at pp. 12-13.
[42] PPL Electric Exhibit JBL-1, at p. 14
[43] PPL Electric Exhibit JBL-1, at p. 14.
[44] PPL Electric Exhibit JBL-1, at p. 15.
[45] PPL Electric Exhibit JBL-1, at pp. 14-15.

49. The proposed rebuild option avoids the ongoing O&M expense and additional, eventual reconductoring costs associated with the replacement alternative.[46]

50. The Project has the additional benefit of improving performance by increasing clearances and improving lightning performance by replacing the existing lattice towers with monopoles.[47]

51. The Office of Consumer Advocate ("OCA") acknowledges that the need for the Project is an "asset health issue" and a "public safety issue."[48]

52. PPL Electric evaluated the alternatives proffered by the OCA.[49]

53. None of the alternatives advanced by the OCA are feasible or reasonable for PPL Electric to pursue. [50]

54. The use of dynamic line ratings ("DLR") is not a technology that affects the standard steady-state load-flow analysis and is not feasible or reasonable, nor an appropriate alternative to the Stanton-Summit Project as proposed.[51]

55. Upgrading the existing Stanton-Summit #3 and #4 230 kV Transmission Lines to a 500 kV transmission line would simply add unneeded capacity at substantial additional cost and would require substantial changes to PPL Electric's existing facilities.[52]

56. Undergrounding some or all of the Stanton-Summit #3 and #4 230 kV Transmission Lines would be substantially more costly, result in incremental ROW and

[46] PPL Electric Exhibit JBL-1, at p. 15.
[47] PPL Electric Exhibit JBL-1, at p. 15.
[48] OCA St. No. 1, at p. 8.
[49] PPL Electric St. No. 2-R, at pp. 5-6.
[50] PPL Electric St. No. 2-R, at pp. 5-6.
[51] PPL Electric St. No. 2-R, at p. 9.
[52] PPL Electric St. No. 2-R, at pp. 11-12.

environmental impacts, and would increase the difficulty and expense of performing maintenance and addressing outages.[53]

57. Installation of a battery energy storage system ("BESS") would target a non-existent concern, be substantially more expensive, would fail to comply with NERC Standard TPL-001, would require the acquisition of additional land at the Summit Substation, and would add operational complexity as compared to the Project as proposed.[54]

58. Demand Response ("DR") and Distributed Energy Resources ("DER") cannot replace the need for a transmission line.[55]

59. Removal of the Stanton-Summit #3 and #4 230 kV Transmission Lines from service would result in low-voltage violations and overload violations that could not be resolved through DR and DER under NERC Standard TPL-001.[56]

C. THE STANTON-SUMMIT PROJECT WILL NOT CREATE AN UNREASONABLE RISK OF DANGER TO THE HEALTH AND SAFETY OF THE PUBLIC

60. The rebuilt Stanton-Summit #3 and #4 230 kV Transmission Lines associated with the Stanton-Summit Project will be designed, constructed, operated, and maintained in a manner that meets or surpasses all applicable NESC minimum standards and all applicable legal requirements.[57]

[53] PPL Electric St. No. 2, at p. 9; PPL Electric St. No. 2-R, at pp. 17-19.
[54] PPL Electric St. No. 2-R, at pp 21-24.
[55] OCA St. No. 1, at p. 42.
[56] PPL Electric St. No. 2-R, at p. 28.
[57] PPL Electric St. No. 1, at p. 16; PPL Electric Exhibit JBL-4, at p. 1.

61. PPL Electric designs and constructs projects with high regard to both public and employee safety and follows or exceeds all codes and requirements.[58]

62. PPL Electric's safety rules include: procedures to allow work to be performed on energized facilities in a safe manner, including specific tagging procedures; the use of temporary safety grounds on de-energized facilities for employee lineman safety during maintenance, construction, or reconstruction work; pre-grounding voltage tests to confirm a line is de-energized; pre-climbing inspection of pole and/or structure integrity; and the required use of appropriate safety gear.[59]

63. PPL Electric has taken EMF mitigation into account.[60]

64. Ground clearances for the proposed Project will be increased between approximately 3.0 and 7.0 feet higher than those required by the NESC standard, in order to reduce the magnetic field exposure.[61]

65. The proposed rebuild of the Stanton-Summit #3 and #4 230 kV Transmission Lines will continue to allow for double-circuit operation, which will allow for reverse phasing.[62]

66. A reduction in magnetic field exposure is anticipated due to the higher ground clearances and reverse phasing.[63]

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[58] PPL Electric Exhibit JBL-4, at p. 4.
[59] PPL Electric Exhibit JBL-4, at pp. 4-5.
[60] PPL Electric St. No. 1 at pp. 16-17; *see also* PPL Electric Exhibit JBL-4, at p. 5.
[61] PPL Electric St. No. 1 at pp. 16.
[62] PPL Electric St. No. 1 at pp. 16.
[63] PPL Electric St. No. 1 at pp. 16-17.

D. THE STANTON-SUMMIT PROJECT IS IN COMPLIANCE WITH STATUTES AND REGULATIONS PROVIDING FOR THE PROTECTION OF NATURAL RESOURCES

67. The Stanton-Summit Project will be constructed entirely within the existing rights-of-way currently occupied by the existing Stanton-Summit #3 and #4 230 kV Transmission Lines.[64]

68. In addition, the Project facilities will be rebuilt upon the same structure alignment as the existing facilities.[65]

69. PPL Electric conducted an online review of the Project Area and surrounding landscape through the Pennsylvania Historical and Museum Commission State Historic and Archaeological Resources Exchange site.[66]

70. No State Historic Preservation Office ("SHPO") listed or eligible properties are crossed by the Stanton-Summit Project.[67]

71. The Bedell-Courtright Farmstead (SHPO Resource Number 2011RE00513) borders the north side of the ROW along Ransom Road in the central portion of the Project Area. No effect to this resources is anticipated by the proposed Project activities.[68]

72. No national parks, state parks, local parks, recreational areas, or natural landmarks will be affected by the Project, because none are located in the Project Area.[69]

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[64] PPL Electric Exhibit JBL-3, at p. 1.
[65] PPL Electric Exhibit JBL-3, at p. 1.
[66] PPL Electric St. No. 1, at pp. 18-19.
[67] PPL Electric St. No. 1, at p. 19.
[68] PPL Electric St. No. 1, at p. 19.
[69] PPL Electric St. 1, at p. 18.

73. No federal or state designated unique geological, scenic, or natural areas will be affected by the Project, because none are located within the Project Area.[70]

74. PPL Electric completed a Pennsylvania Natural Diversity Inventory ("PNDI") for the Project and, while certain endangered or threatened plant species were identified, the plants species of concern was found in a location that will not be affected by Project activities. PPL Electric will continue to consult with the Pennsylvania Department of Conservation and Natural Resources.[71]

75. PPL Electric will obtain all required permits for Project construction and will comply with any and all conditions placed on such permits.[72]

E. THE STANTON-SUMMIT PROJECT WILL HAVE MINIMAL ADVERSE ENVIRONMENTAL IMPACTS

76. The Stanton-Summit Project does not require a siting and route selection analysis because the Project involves rebuilding an existing transmission line located entirely within existing ROW.[73]

77. No conditions were imposed by any permitting agencies related to environmental concerns for the Stanton-Summit Project.[74]

78. The Stanton-Summit Project will have minimum environmental impacts compared to any greenfield transmission line construction alternative because the Project is to take place entirely within the Company's existing ROW.[75]

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[70] PPL Electric St. No. 1, at p. 19.
[71] PPL Electric St. No. 1, at pp. 20-21.
[72] PPL Electric Exhibit JBL-3, at pp. 6, 8.
[73] PPL Electric St. No. 1, at p. 22.
[74] PPL Electric St. No. 1, at p. 23.
[75] PPL Electric St. No. 1, at p. 22.

APPENDIX B

PROPOSED CONCLUSIONS OF LAW

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PPL Electric Utilities Corporation ("PPL Electric" or the "Company") proposes the following conclusions of law:

1. PPL Electric is seeking Commission approval of the rebuild of an existing overhead high voltage transmission line. Section 332(a) of the Public Utility Code ("Code")[1] provides that the party seeking a rule or order from the Commission has the burden of proof in that proceeding.

2. It is axiomatic that "[a] litigant's burden of proof before administrative tribunals as well as before most civil proceedings is satisfied by establishing a preponderance of evidence which is substantial and legally credible."[2]

3. The preponderance of evidence standard requires proof by a greater weight of the evidence.[3] This standard is satisfied by presenting evidence more convincing, by even the smallest amount, than that presented by another party.[4]

4. Additionally, any finding of fact necessary to support an adjudication of the Commission must be based upon substantial evidence.[5]

5. Substantial evidence is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.[6] Although substantial evidence must be "more than a scintilla and must do more than create a suspicion of the existence of the fact to be established,"[7]

[1] 66 Pa.C.S. § 332(a).
[2] *Samuel J. Lansberry, Inc. v. Pa. PUC*, 578 A.2d 600, 602 (Pa. Cmwlth. 1990).
[3] *Commonwealth of Pennsylvania v. Williams*, 557 Pa. 207, 732 A.2d 1167 (Pa. 1999).
[4] *Brown v. Commonwealth of Pennsylvania*, 940 A.2d 610, 614 n.14 (Pa. Cmwlth. 2008).
[5] *Met-Ed Indus. Users Group v. Pa. PUC*, 960 A.2d 189, 193 n.2 (Pa. Cmwlth. 2008) (citing 2 Pa.C.S. § 704).
[6] *Borough of E. McKeesport v. Special/Temporary Civil Service Commission*, 942 A.2d 274, 281 (Pa. Cmwlth. 2008).
[7] *Kyu Son Yi v. State Board of Veterinarian Medicine*, 960 A.2d 864, 874 (Pa. Cmwlth. 2008) (citation omitted).

the "presence of conflicting evidence in the record does not mean that substantial evidence is lacking."[8]

6. If the applicant sets forth a *prima facie* case, then the burden shifts to the opponent.[9] Establishing a *prima facie* case requires either evidence sufficient to make a finding of fact permissible or evidence to create a presumption against an opponent which, if not met, results in an obligatory decision for the proponent.

7. Once a *prima facie* case on a point has been established, if contrary evidence is not presented, there is no requirement that the applicant produce additional evidence in order to sustain its burden of proof.[10]

8. Under Section 332(a) of the Public Utility Code, the party proposing a Commission rule or order has the burden of proof. Thus, while PPL Electric ultimately has the burden of proof to show that the Project is needed, the Office of Consumer Advocate bears the burden of proof as to the reasonableness of its suggested alternatives to the Project, as well as the burden of proof to show that the Commission should require additional analysis of its purported alternatives on the part of PPL Electric beyond what the Commission's regulations require.[11]

9. Pursuant to Section 1501 of the Public Utility Code, an electric utility has a statutory obligation to provide safe, adequate, and reliable service to its customers.[12]

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[8] *Allied Mechanical and Elec., Inc. v. Pennsylvania Prevailing Wage Appeals Board*, 923 A.2d 1220, 1228 (Pa. Cmwlth. 2007) (citation omitted).
[9] *McDonald v. Pennsylvania Railroad Co.*, 348 Pa. 558, 36 A.2d 492 (Pa. 1940).
[10] *District of Columbia's Appeal*, 343 Pa. 65, 21 A.2d 883 (Pa. 1941). *See, e.g., Application of Pennsylvania Power & Light Co.*, Docket Nos. A-110500F0196, *et al.* 1994 Pa. PUC LEXIS 65 (Initial Decision issued Oct. 21, 1994) (holding that the company met its burden to prove that there was an immediate need for the reinforcement of the power supply where the need for the project was uncontested and no party presented any evidence challenging the need for the project).
[11] *See* 66 Pa.C.S. § 332(a); *NRG Energy, Inc. v. Pa. PUC*, 233 A.3d 936, 950-951 (Pa. Cmwlth. 2020), *appeal denied*, 244 A.3d 346 (Pa. 2021) ("If NRG did not bear a burden to present something to support its methodology, it would be difficult, if not impossible, for [utility] to respond with evidence explaining why the alternative should not be accepted").
[12] 66 Pa.C.S. § 1501.

10. The Commission's regulations provide that an electric utility may not construct HV transmission lines, *i.e.*, electrical lines with a voltage of 100 kV or higher, without prior Commission approval.[13] As explained by the Commonwealth Court, the Commission's transmission line siting regulations set forth the following:

> (1) the procedures for applying for approval of an HV line -- 52 Pa. Code § 57.72; (2) the procedures for hearings on HV line applications -- 52 Pa. Code § 57.75; and (3) what the [Commission] will consider when deciding whether to approve or deny an HV line application -- 52 Pa. Code § 57.76(a). These regulations, and 52 Pa. Code § 57.76 in particular, represent a codification of the review required by article I, section 27 of the Pennsylvania Constitution. *Re Proposed Electric Regulation*, 1976 Pa. PUC LEXIS 114, 49 Pa. P.U.C. 709, 712 (March 2, 1976) (stating that the "review required by article I, section 27 is being incorporated into our siting regulations").[14]

11. In order to grant an application for the construction and siting of a HV transmission line, the Commission must find and determine the following as to the proposed 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 the available technology and the available alternatives.[15]

12. The Public Utility Code does not define "need"; however, Pennsylvania courts have recognized that there is a need for reliable regional electric service and transmission systems.[16]

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[13] 52 Pa. Code § 57.71.

[14] *Energy Conservation Council of Pennsylvania v. Pa. PUC*, 995 A.2d 465, 477-78 (Pa. Cmwlth. 2010) (hereinafter "*Trailco*").

[15] 52 Pa. Code § 57.76(a).

13. The General Assembly has recognized the importance of ensuring the reliability of electric transmission systems, and the provision of sufficient electrical power at affordable rates. Section 2802(12) of the Code states that "[r]eliable electric service is of the utmost importance to the health, safety and welfare of the citizens of the Commonwealth. Electric industry restructuring should ensure the reliability of the interconnected electric system by maintaining the efficiency of the transmission . . . system."[17] Section 2802(20) of the Code provides, *inter alia*, that ensuring the reliability of electric service depends on conscientious maintenance of transmission systems, and that electric system operators shall establish inspection, maintenance, repair and replacement standards.[18]

14. Section 2803 of the Code defines "reliability" as:

> Includes adequacy and security. As used in this definition, "adequacy" means the provision of sufficient generation, transmission and distribution capacity so as to supply the aggregate electric power and energy requirements of consumers, taking into account scheduled and unscheduled outages of system facilities; and "security" means designing, maintaining and operating a system so that it can handle emergencies safely while continuing to operate.[19]

15. The Commonwealth Court of Pennsylvania has explained that nowhere in any of the foregoing statutory or regulatory provisions is there a requirement that a public utility demonstrate a "need" for the installation of the transmission line from an "engineering" perspective.[20]

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[16] *Stone v. Pa. PUC*, 162 A.2d 18, 19-221 (Pa. Super. 1960); *Dunk v. Pa. PUC*, 232 A.2d 231, 234-35 (Pa. Super. 1967).
[17] 66 Pa.C.S. § 2802(12).
[18] 66 Pa.C.S. § 2802(20).
[19] 66 Pa.C.S. § 2803.
[20] *Pennsylvania Power & Light Co. v. Pa. PUC*, 696 A.2d 248, 250 (Pa. Cmwlth. 1997).

16. An electric utility can demonstrate that the transmission line project is needed where the project resolves violations of the utility's internally developed planning and reliability criteria.[21]

17. The plain language of 52 Pa. Code § 57.76(a)(1) states that an electric utility must demonstrate there is "a" need for a transmission line project.[22] "A" need is an indefinite article, meaning that it lacks specificity for the proceeding noun, *i.e.*, "need"; conversely, "the" is a definite article, meaning that the proceeding noun, *i.e.*, "need," would be specific.[23] It is well settled that a public utility must decide in the first instance what facilities are needed and where to locate those facilities; unless the public utility acted in an arbitrary or capricious manner, its decision should remain undisturbed.[24]

18. The Commission is not a "super board of directors" that acts to second guess a utility.[25] Therefore, so long as a utility demonstrates there is "a" need for a given project, it has satisfied the requirement of 52 Pa. Code § 57.76(a)(1).

19. PPL Electric has met its burden of proof to demonstrate that there is a need for the proposed Stanton-Summit Project.

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[21] *See Hess v. Pa. Pub. Util. Comm'n*, 107 A.3d 246, 262-263 (Pa. Cmwlth. 2014), *appeal denied*, 632 Pa. 678, 117 A.3d 1282 (Pa. 2015); *Application of PPL Electric Utilities Corporation filed Pursuant to 52 Pa. Code Chapter 47, Subchapter G, for Approval of the Siting and Construction of the North Lancaster Honey Brook # 1 & # 2 138/69 kV Transmission Lines in Lancaster County, Pennsylvania*, Docket Nos. A-2014-2430565 *et al*., 2015 Pa. PUC LEXIS 77, at *49 (Initial Decision issued Feb. 27, 2015) *adopted without modification* (Order entered Apr. 23, 2015) ("*PPL North Lancaster-Honey Brook*") (holding that a project which alleviates violations of an electric utility's own planning criteria provides sufficient evidence to support a finding of need).

[22] 52 Pa. Code § 57.76(a)(1).

[23] *See Patricca v. Zoning Bd. of Adjustment,* 590 A.2d 744, 751 (Pa. 1991) ("The word 'the' is a definite article and is used . . . before a noun, with specifying or particularizing effect, as opposed to the indefinite or generalizing force of the indefinite article 'a' or 'an'") (citations omitted).

[24] *See e.g., Lower Chichester Township v. Pa. PUC,* 119 A.2d 674 (Pa. Super 1956); *Abbington Electric Co. v. Pa. PUC,* 198 A. 901 (Pa. Super 1938).

[25] *Metropolitan Edison Co. v. Pa. P.U.C.*, 437 A.2d 76, 80 (Pa. Cmwlth. 1982) ("The Commission is not empowered to act as a super board of directors for the public utility companies of this state.") (citations omitted); *See also Pa. P.U.C., et al. v The Columbia Water Co.*, Docket Nos. R-2008-2045157, *et al.* 2009 Pa. PUC LEXIS 1423 (Opinion and Order entered May 28, 2009).

20. With respect to health and safety, the Commission has held that transmission lines that meet or exceed the National Electric Safety Code ("NESC") requirements do not create an unreasonable risk of danger to the health and safety of the public.[26]

21. PPL Electric has met its burden of proof to demonstrate that the proposed Stanton-Summit Project will not create an unreasonable risk of danger to the health and safety of the public.

22. With respect to natural resources and the environment, the Pennsylvania Supreme Court has concluded that Article I, Section 27 of the Pennsylvania Constitution, *i.e.*, the Environmental Rights Amendment,[27] placed Pennsylvania's public natural resources in trust and named the Commonwealth as its trustee, to conserve and maintain those resources for the benefit of all people, including future generations.[28] In carrying out these obligations, the Commonwealth, and its agencies, may subject the individual rights of citizens to clean air, pure water, and to the preservation of natural, scenic, historic, and esthetic values to reasonable regulation.[29]

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[26] *See Application of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa. Code Chapter 57, Subchapter G, for Approval of the Siting and Construction of the Pennsylvania Portion of The Proposed Susquehanna-Roseland 500 kV Transmission Line*, Docket Nos. A-2009-2082652, *et al.*, 2010 Pa. PUC LEXIS 434, at *166 (Opinion and Order entered Feb. 12, 2010); *Application of PP&L for Approval to Locate and Construct a 138 kV 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 138 kV Electric Transmission Line*, Docket No. A-00101826 (Order entered Apr. 3, 1981); *Larken v. Philadelphia Electric Co*., 39 Pa. PUC 777 (1961).

[27] PA. CONST. art. I, § 27.

[28] *Pa. Environmental Defense Foundation v. Com. Of Pa.*, 161 A.3d 911 (Pa. 2017) ("*PEDF*").

[29] *PEDF*, 161 A.3d at 931; *see also 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 Nos. A-2016-2565296 *et al*., at pp. 12-14 (Order entered March 8, 2018) ("*Penelec*").

23. The Commission has determined that its existing rules and policy satisfy its obligations under the Environmental Rights Amendment as described in *PEDF*.[30] The Commission further explained in *Penelec* that:

> The Commission's regulatory scheme for high-voltage line transmission siting cases, therefore, provides for a robust, evidence-based deliberative process that provides due process for all interested parties. The Commission, consistent with our role as a fiduciary responsible for the preservation of the Commonwealth's natural resources, and consistent with PEDF, acts with prudence, loyalty and impartiality when adhering to these regulations. In this manner, we fulfill our responsibility to protect the public's natural resources from depletion or degradation, while also allowing legitimate development that improves the lot of Pennsylvania's citizenry, as the Pennsylvania Supreme Court recognized in *Robinson Township v. Com. of Pa.*, 623 Pa. 564, 658, 83 A.3d 901, 958 (2013).[31]

24. Generally, the Commission has found compliance with the applicable environmental statutes and regulations where the applicant agrees to obtain any and all necessary environmental permits prior to construction and to comply with any conditions on those permits during construction.[32] The applicant is not required to receive all necessary permits before the

[30] *Penelec*, at pp. 13-14 ("Our siting Regulations are in accord with the Environmental Rights Amendment by requiring that the environmental impact of the proposed transmission siting route be minimized."); *see also* 52 Pa. Code §§ 69.3105, 69.3106.

[31] *Penelec*, p. 14.

[32] *See, e.g., Joint Letter of Notification of Mid-Atlantic Interstate Transmission, LLC And PPL Electric Utilities Corporation For The Martins Creek-Siegfried #2 230 Kilovolt Transmission Line Loop to Klecknersville 230 Kilovolt Substation Project in Moore Township, Northampton County, Pennsylvania*, Docket Nos. A-2022-3036551, *et al.* (Initial Decision issued June 21, 2023) *adopted without further Commission action* (Final Order entered July 26, 2023); *Application of Pennsylvania Electric Company For Approval to Locate and Construct the Bedford North-Osterburg East 115 kV HV Transmission Line Project Situated in Bedford and East St. Clair Townships, Bedford County, Pennsylvania*, Docket Nos. A-2011-2247862, *et al.*, 2012 Pa. PUC LEXIS 298 at *61 (Initial Decision Feb. 9, 2012) (Opinion and Order Denying Exceptions entered June 7, 2012); *Application of Trans-Allegheny Interstate Line Company for the Approval to locate, construct, operate and maintain certain high voltage electric transmission line facilities and to exercise the power of eminent domain to construct and to install the proposed aerial electric transmission line facilities along the proposed route, being a 138 kV transmission line and related facilities collectively, the Osage-Whiteley Line Facilities or Project, in portions of Dunkard Township, Perry Township, and Whiteley Township, Greene County in Southwestern Pennsylvania*, Docket Nos. A-2010-2187540, *et al.*, 2011 Pa. PUC LEXIS 2028 (Recommended Decision Mar. 28, 2011) (Opinion and Order entered July 24, 2012); *Application of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa. Code Chapter 57, Subchapter G, for Approval of the Siting and Construction of the Pennsylvania Portion of The Proposed Susquehanna-Roseland 500 kV Transmission*

Commission may approve the transmission line, or before construction of the proposed line begins.[33]

25. The Commission has concluded an applicant can satisfy 52 Pa. Code § 57.76(a)(3) by demonstrating that a rebuilt transmission line will be located entirely within existing ROW and "state and federal agencies have confirmed that they either have no concerns regarding impacts on endangered or threatened species, or that they will work with [the applicant] to ensure that the construction does not negatively impact such species."[34]

26. PPL Electric has met its burden of proof to demonstrate that the proposed Stanton-Summit Project is in compliance with applicable statutes and regulations, providing for the protection of the natural resources of this Commonwealth.

27. With respect to the selection of a proposed route for a high-voltage transmission line under 52 Pa. Code § 57.76(a)(4), the Commonwealth Court of Pennsylvania has held that a utility's route for a proposed HV transmission line should be approved where the record evidence shows that the utility's route-selection process was reasonable, and that the utility properly considered the factors relevant to siting a transmission line.[35]

28. The Commission has concluded that where a transmission "will be constructed entirely on existing ROW and…the line is being rebuilt, consideration of an alternative route is unnecessary."[36]

Line, Docket Nos. A-2009-2082652, *et al*., 2010 Pa. PUC LEXIS 434 at *191-201 (Opinion and Order entered Feb. 12, 2010).

[33] *Energy Conservation Council of Pennsylvania v. Pa. PUC*, 25 A.3d 440, 452 (Pa. Cmwlth. 2011) (hereinafter "*Susquehanna-Roseland*").

[34] *Breinigsville-Alburtis Order*, at p. 19.

[35] *Susquehanna-Roseland*, at 449-50 (quoting *Trailco*, 995 A.2d 465, 479-80).

[36] *Breinigsville-Alburtis Order*, at p. 6 (emphasis added); *See also Application of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa. Code Chapter 57 Subchapter G, For Approval to Rebuild The Existing Summit-Lackawanna #1 and #2 230 Kv Transmission Lines Connecting the Summit 230-69 Kv Substation and The Lackawanna 500-230-69 Kv Substation in Lackawanna County, Pennsylvania*, Docket No. A-2022-3030969, p. 32 (Initial Decision issued Nov. 22, 2022) *adopted without further Commission action* (Final Order entered Dec. 23,

29. PPL Electric has met its burden of proof to satisfy 52 Pa. Code § 57.76(a)(4).

2022) ("[t]he need for a siting study is further obviated by the fact that any alternative route would require the location of transmission lines where none presently exist; in this regard, the existing ROW would have fewer environmental impacts and constitute the preferred ROW in comparison to other reasonable alternatives.")

APPENDIX C

PROPOSED ORDERING PARAGRAPHS

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PROPOSED ORDERING PARAGRAPHS

PPL Electric Utilities Corporation ("PPL Electric" or the "Company") proposes the following ordering paragraphs:

1. The Letter of Notification Of PPL Electric Utilities Corporation, Filed Pursuant To 52 Pa. Code Chapter 57 Subchapter G, For Approval To Rebuild The Existing Double-Circuit Stanton-Summit #3 And #4 230 kV Transmission Lines Connecting the Stanton 230 kV Substation And A Two-Pole Turn Structure That Are Respectively Located In Luzerne And Lackawanna Counties, Pennsylvania filed at Docket No. A-2022-3037374, is approved.

2. The Protest of the Office of Consumer Advocate filed at Docket No. A-2022-3037374 is denied.

3. All other such approvals that are necessary or appropriate to approve the above-captioned application are granted.

4. The proceeding at Docket No. A-2022-3037374 be marked closed.