

COMMONWEALTH OF PENNSYLVANIA



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October 8, 2026

Via Electronic Mail Only

Matthew L. Homsher, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

Re: Letter of Notification of PPL Electric Utilities Corporation Filed Pursuant to 52 Pa. Code Chapter 57 Subchapter G, for Approval to Build Approximately 1.1 Miles of New Parallel Double Circuit 230 kV Transmission Taps that are Needed to Connect the Existing Susquehanna-Harwood #1 & #2 Transmission Lines on the New Tomhicken 230 kV Switchyard that are Respectively Located in Luzerne County, Pennsylvania; Docket No. A-2025-3059443

Dear Secretary Homsher:

Attached for electronic filing please find the Office of Consumer Advocate's Main Brief in the above-referenced proceeding.

Copies have been served on the parties as indicated on the enclosed Certificate of Service.

Respectfully submitted,

/s/ Jacob Guthrie

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Enclosures

cc: Administrative Law Judge John M. Coogan (Via Email Only: jcoogan@pa.gov)
Administrative Law Judge Erin L. Gannon (Via Email Only: egannon@pa.gov)
Certificate of Service

CERTIFICATE OF SERVICE

Letter of Notification of PPL Electric :
Utilities Corporation filed pursuant to 52 :
PA Code Chapter 57 with respect to the :
approval to build approximately 1.1 miles : Docket No. A-2025-3059443
of new parallel double circuit 230 kV :
transmission taps that are needed to :
connect the existing Susquehanna- :
Harwood #1 & #2 transmission lines on the :
New Tomhicken 230 kV switchyard that :
are respectively located in Luzerne County, :
Pennsylvania :

I hereby certify that I have this day filed electronically on the Commission's electronic filing system and served a true copy of the following document, the Office of Consumer Advocate's Main Brief, upon parties of record in this proceeding in accordance with the requirements of 52 Pa. Code Section 1.54 (relating to service by a participant), in the manner and upon the persons listed below.

Dated this 8th day of October 2026.

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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

Re: Letter of Notification of PPL Electric :
Utilities Corporation filed pursuant to 52 PA. :
Code Chapter 57 with respect to the approval : Docket No. A-2025-3059443
to build approximately 1.1 miles of new :
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taps that are needed to connect the existing :
Susquehanna-Harwood #1 & #2 :
transmission lines on the New Tomhicken :
230 kV switchyard that are respectively :
located in Luzerne County, Pennsylvania :

MAIN BRIEF
OF THE
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I. INTRODUCTION

In the instant proceeding, PPL Electric Utilities Corporation (PPL Electric or Company) seeks approval from the Pennsylvania Public Utility Commission (Commission) to site and construct the first of a two-phase project to meet the interconnection and service needs of a single new data center customer (Customer One) the load of which is expected to increase in stages, ultimately reaching approximately 965 megawatts (MW) (Overall Project or Project).¹ The first phase of the Overall Project is the construction of the Tomhicken 230 kilovolt (kV) Switchyard Project in Hazle Township, Luzerne County, Pennsylvania (Phase One Project or Phase One) and is the subject of the instant Letter of Notification.² Phase One consists of (1) approximately 1.1 miles of new double-circuit 230 kV transmission taps connecting the existing Susquehanna-Harwood 230 kV Transmission Lines to a new Tomhicken 230 kV Switchyard; and (2) two new 0.1-mile 230 kV transmission lines connecting the Switchyard to a new customer-owned 230-34 kV substation.³

For the reasons explained further herein, the Office of Consumer Advocate (OCA) respectfully requests that the Commission deny PPL Electric's LON filing seeking approval of Phase One and direct PPL Electric to reapply for siting and construction of the Phase One facilities with sufficient evidence, described in full *infra*, to indicate that no reliability- or cost-related risks associated with the interconnection and service of Customer One are shifted to existing customers. Alternatively, the OCA respectfully requests that the Commission grant conditional approval of the Phase One LON, with approval conditioned upon appropriate safeguards addressing the

¹ PPL Electric St. 1 at 3.

² LON at 1.

³ LON at 1-2.

unresolved reliability, health and safety, and ratepayer-protection concerns established by the evidence of record. The OCA sets forth the following in support of its position.

II. PROCEDURAL HISTORY

On December 19, 2025, PPL Electric filed a LON, pursuant to 52 Pa. Code Section 57.72(d)(1)(iii) and (vi), seeking approval from the Commission to build Phase One.⁴ Phase One is capable of serving a portion of Customer One's initial requested load of 240 MW and up to 400 MW.⁵ The total estimated cost of the Phase One LON is approximately \$59.9 million, with PPL Electric's ratepayers being responsible for paying \$38.4 million (64% of the total Phase One costs) of that amount and the Customer being responsible for paying the remaining \$21.5 million (36% of the total Phase One costs).⁶

The Company's Application was assigned to the Office of Administrative Law Judge and further assigned to Administrative Law Judges (ALJs) Erin L. Gannon and John M. Coogan.

On December 30, 2025, after reviewing the Company's Phase One LON, the OCA filed a Notice of Intervention and Public Statement and on January 7, 2026, the OCA filed a Protest seeking to protect the interest of Pennsylvania's ratepayers. The OCA's focus in this matter has primarily involved investigation of the following areas: (1) the extent to which congestion currently exists in PPL Electric's territory and the regional transmission grid operated by PJM Interconnection, LLC (PJM)⁷; (2) the methods by which the Company and PJM determined the benefits and costs produced by Phase One; (3) whether Phase One is the most appropriate solution,

⁴ LON at 1.

⁵ PPL Electric St. 1 at 3.

⁶ PPL Electric St. 1 at 7.

⁷ PJM is the regional transmission organization (RTO) and independent system operator (ISO) for the vast majority of Pennsylvania, inclusive of the entirety of PPL Electric's service territory, in addition to all or portions of the transmission systems of twelve other states and the District of Columbia.

if one is needed at all; and (4) the impacts to Pennsylvania ratepayers and the PJM region if the Phase One Project is constructed.

On March 12, 2026, Ms. Erika Cook filed a Protest to the LON. On March 13, 2026, Mr. John Zola filed a Protest to the LON.

On April 7, 2026, PPL Electric filed the second phase (Phase Two or Phase Two Application) of the Overall Project, which is a full transmission line siting application that is designed to address future electrical load demands associated with Customer One and other interconnection and service requests from large load data center customers.⁸

On May 13, 2026, PPL Electric served its Direct Testimony, PPL Electric Statement 1, the Direct Testimony of Joseph Lookup; PPL Electric Statement 2, the Direct Testimony of Kyle Swartzentruber; PPL Electric Statement 3, the Direct Testimony of Peter Sparhaw; and PPL Electric Statement 4, the Direct Testimony of Austin Weseloh.

On June 30, 2026, two Public Input Hearing were held at Penn State University's Hazleton Campus. Site visits were also convened to view the affected properties in order for landowners to demonstrate the specific impacts of the Phase One LON Project in Pennsylvania.

On June 16, 2026, PPL Electric filed its Motion for Protective Order.

On July 8, 2026, the OCA submitted its Direct Testimony, consisting of OCA Statement 1, the Direct Testimony of Frank Felder, and OCA Statement 2, the Direct Testimony of Rao Konidena. Also on July 8, 2026, Mr. John Zola submitted his Direct Testimony and Ms. Erika Cook submitted her Direct Testimony.

⁸ *Application of PPL Electric Utilities Corporation, Filed Pursuant to 52 Pa. Code Chapter 57 Subchapter G, for Approval to (1) Bifurcate and Rebuild 4.4 Miles of the Existing Sunbury-Susquehanna #1 230 kV Transmission Line; (2) Construct 0.9 Miles of New Transmission Line Tap for Future 230 kV Double-Circuit Operation; (3) Raise Approximately 0.5 Miles of the Sunbury-Susquehanna 500 kV Transmission Line; and (4) Construct 11.2 Miles of New Double-Circuit 230 kV Transmission Line for Future Double-Circuit 500 kV Capacity, Located in Black Creek, Hazle, Hollenback, Nescopeck, and Sugarloaf Townships in Luzerne County, Pennsylvania, Docket Nos. A-2026-3061547 et al, Application (filed Apr. 7, 2026).*

On July 15, 2026, the OCA submitted OCA Statement 3, the Supplemental Direct Testimony of Zachary Teti.

On August 7, 2026, PPL Electric filed its Rebuttal Testimony, consisting of PPL Electric Statement 1-R, the Rebuttal Testimony of Joseph Lookup; PPL Electric Statement 2-R, the Rebuttal Testimony of Kyle Swartzentruber; PPL Electric Statement 3-R, the Rebuttal Testimony of Peter Sparhawk; PPL Electric Statement 4-R, Rebuttal Testimony of Chad Huber; PPL Electric Statement 5-R, the Rebuttal Testimony of John D. Taylor; and PPL Electric Statement 6-R, the Rebuttal Testimony of Bethany L. Johnson.

On September 4, 2026, the OCA filed its Surrebuttal Testimony, consisting of OCA Statement 1SR, the Surrebuttal Testimony of Frank A. Felder, Ph.D., and OCA Statement 2SR, the Surrebuttal Testimony of Rao Konidena. Also on September 4, 2026, Ms. Erika Cook submitted her Surrebuttal Testimony and Mr. John Zola submitted his Surrebuttal Testimony.

On September 14, 2026, PPL Electric filed its Rejoinder Testimony, consisting of PPL Electric Statement 1-RJ, the Rejoinder Testimony of Joseph Lookup; PPL Electric Statement 2-RJ, the Rejoinder Testimony of Kyle Swartzentruber; and PPL Electric Statement 5-RJ, the Rejoinder Testimony of John D. Taylor.

Evidentiary Hearings were held in person on September 17 and 18, 2026, during which PPL Electric witnesses Joseph Lookup and John D. Taylor, Ms. Erika Cook, and OCA witnesses Frank Felder and Rao Konidena were cross-examined. Also during the hearings, in pertinent part, the parties addressed the Written Statement of OCA Witness Rao Konidena relating to the Protective Order.

On September 22, 2026, ALJs Emily A. Farren and Steven K. Haas, presiding over the Phase Two Application, ordered suspension of the Phase Two Application procedural schedule

due to the ongoing Phase One LON and land use litigation over Customer One's proposed facilities, and directed PPL Electric to file a status report after a Commission order is entered in the Phase One LON proceeding, or 6 months after the date of the Order.

III. LEGAL STANDARDS

A. Burden of Proof

As the proponent of an order approving the LON, the Company has the burden of proof.⁹ To that end, PPL Electric must demonstrate that the Project is necessary to maintain adequate, efficient, safe, and reasonable service and facilities¹⁰ and meets the requirements of the Commission's regulations.¹¹ The party with the "burden of proof" has a duty to establish material facts by a preponderance of the evidence.¹² The "preponderance of the evidence" means that one party has presented evidence that is more convincing than the evidence presented by the other party.¹³

B. Transmission Line Siting Authority

Pursuant to the Commission's authority under 66 Pa. C.S. Section 1501 and the Environmental Rights Amendment, the Commission promulgated regulations for the siting and construction of high-voltage transmission lines codified at Chapter 57, Subchapter G, of Title 52 of the Pennsylvania Code.¹⁴ Section 57.71 of the Commission's Regulations states as follows:

Upon the application of a public utility for authorization to locate and construct a HV transmission line or any portion thereof, upon approval of the application by the Commission first had and obtained, and upon compliance with existing laws, it

⁹ 66 Pa. C.S. § 332.

¹⁰ 66 Pa. C.S. §§ 332(a), 1501.

¹¹ 52 Pa. Code § 57.71 et seq.

¹² *Se-Ling Hosiery, Inc. v. Margulies*, 70 A.2d 854, 857 (Pa. 1950).

¹³ *Id.* at 856.

¹⁴ 52 Pa. Code §§ 57.71-57.77. The Commission's Regulations define a high-voltage line as "an overhead electric supply line with a design voltage greater than 100,000 volts" or 100 kilovolts (kV). 52 Pa. Code § 57.1.

shall be lawful for a public utility to commence construction of the HV transmission line or portion thereof.¹⁵

The Commission's regulations also set forth the criteria that must be met before a high-voltage transmission line is approved:

- (1) That there is a need for it.
- (2) That it will not create an unreasonable risk of danger to the health and safety of the public.
- (3) That it is in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth.
- (4) That it will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives.¹⁶

Pursuant to Section 57.76, the Commission must ensure that all criteria are met before it may approve the siting and construction of high-voltage transmission facilities.¹⁷ To reach its determination, the Commission will accept evidence and consider the following:

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

- (1) The present and future necessity of the proposed HV line in furnishing service to the public.
- (2) The safety of the proposed HV line.
- (3) The impact and the efforts which have been and will be made to minimize the impact, if any, of the proposed HV line upon the following:
 - (i) Land use.
 - (ii) Soil and sedimentation.
 - (iii) Plant and wildlife habitats.
 - (iv) Terrain.
 - (v) Hydrology.
 - (vi) Landscape.
 - (vii) Archeologic areas.

¹⁵ 52 Pa. Code § 57.71.

¹⁶ 52 Pa. Code § 57.76(a).

¹⁷ 52 Pa. Code § 57.76(a).

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

(4) The availability of reasonable alternative routes.¹⁸

In light of the Commission's obligations under the Environmental Rights Amendment in Pennsylvania's Constitution, as outlined in *Pa. Env't Def. Found. v. Commonwealth*, 161 A.3d 911, 930 (Pa. 2017) (*PEDF*), the Company has a heavy burden to meet each of the statutory and regulatory requirements for a transmission siting project that infringes upon the environmental rights of Pennsylvanians.

C. Need

The Commission and Commonwealth Court have historically interpreted the need criterion in transmission line proceedings broadly:

Because a finding of necessity may be found under Pennsylvania law if a project results in a decrease in prices, we do not view it an abuse of discretion for the Commission to consider evidence of increased consumer prices and weigh the competing cost impacts of the [] Project to determine the necessity of that project.¹⁹

In the same HV Line Application proceeding, the Commission stated:

With respect to consideration of the potential negative impact, including rate increases, to the customers in the Commonwealth, Transource asserts that this Commission is required to disregard such negative impact and weigh only the assertion of "need" for the proposed project as calculated under the PJM-approved criteria and methodology. We disagree. The potential negative and practical impact on the citizens and consumers of Pennsylvania is our concern, and it is properly within the scope of our consideration of the weight of all the evidence on the issue of "need."²⁰

¹⁸ 52 Pa. Code § 57.75(e)(1-4).

¹⁹ *Transource Pa., LLC v. Pa. PUC*, 278 A.3d 942, 966 (Pa. Cmwlth. 2022) (citing *Hess v. Pa. PUC*, 107 A.3d 246, 260 (Pa. Cmwlth. 2014)).

²⁰ *Application of Transource Pennsylvania, LLC for approval to acquire a certain portion of the lands of various landowners in York and Franklin Counties, Pennsylvania for the siting and construction of the 230 kV Transmission Line associated with the Independence Energy Connection East and West Projects as necessary or proper for the*

In *TRAILCo*, the Commission expressly held that it was “entirely appropriate” for the ALJs to examine “federal policy and national issues revolving around the transmission grid,” as well as “the potential costs of green house emissions, DSM and energy efficiency alternatives and whether the proposal was built to facilitate west-to-east transfers of generation” when making its “need” determination under Section 1501 of the Public Utility Code and Section 57.76(a)(1) of the Commission’s regulations.²¹ In a prior case where the Commission strictly applied “need” to mean “necessity from an engineering perspective,” the Commission’s decision was reversed on appeal.²²

D. Due Interests of Consumers

This Project may contribute to increased energy, ancillary services, and capacity costs, as well as increased capacity scarcity, that would harm Pennsylvania’s retail electricity consumers.²³ As a matter of law, a proceeding which involves an increase in rates involves a substantial property right, entitling ratepayers to notice and procedural due process.²⁴ Given that approval of the LON will substantially affect the interests of consumers, the Commission must “consistent with its other statutory responsibilities, take such action with due consideration to the interests of consumers.”²⁵

IV. STATEMENT OF THE CASE

PPL Electric proposes to interconnect Customer One to PPL Electric’s distribution system subject to the terms and conditions of Rate LP-6 of PPL Electric’s Tariff.²⁶ Given that the existing

service, accommodation, convenience or safety of the public, 2021 PA. PUC LEXIS 143, *62 (Order May 20, 2021) *aff’d Transource Pa., LLC v. Pa. PUC*, 278 A.3d 942 (Pa. Cmwlth. 2022) (*Transource 2021*).

²¹ *In re: Application of Trans-Allegheny Interstate Line Co.*, 2008 Pa. PUC LEXIS 35, *47-48 (Nov. 13, 2008) (*TRAILCo*).

²² *Pa. Power & Light Co. v. Pa. PUC*, 696 A.2d 248, 250 (Pa. Cmwlth. 1997) (“Nowhere in any of the foregoing statutory or regulatory provisions, nor in any other regulations promulgated under the Code, is there a requirement that the *necessity* which must be shown by a public utility corporation, such as PP&L, seeking to construct a transmission line, is that of necessity from an engineering prospective as concluded by the PUC.”) (emphasis in original).

²³ OCA St. 1 at 8.

²⁴ *McCloskey v. Pa. PUC*, 195 A.3d 1055, 1068 (Pa. Cmwlth. 2018) (citing *Barasch v. Pa. PUC*, 546 A.2d 1296, 1305-06 (Pa. Cmwlth. 1988); citing also U.S. Const. amend. XIV, § 1).

²⁵ 71 P.S. § 309-5.

²⁶ PPL Electric St. 1-R at 11.

transmission system cannot reliably serve Customer One's electricity demand of 965 MW, PPL Electric proposes to construct the Overall Project to reliably serve Customer One.²⁷ PPL Electric proposes to construct the Overall Project in two phases, Phase One and Phase Two.²⁸ PPL Electric witness Lookup testified that Customer One's demand will increase in stages to exceed 700 MW in the summer of 2028²⁹ and to a maximum contract peak load of approximately 965 MW by 2033.³⁰ For context, customer demand approaching 1,000 MW is roughly the size of one very large power plant.³¹ However, the evidence does not show the exact pace of the staged load growth.

A. Purported Benefits

1. Tomhicken Switchyard

A purported benefit of Phase One is that it will facilitate the interconnection of and service to a portion of Customer One's overall demand (up to 400 MW out of the total 965 MW).³² However, this benefit is speculative given that Customer One's facilities have not received necessary local land use approvals.³³ Another purported benefit of Phase One is the facilitation of the interconnection of future customers.³⁴ This benefit is also speculative because no customers have executed contracts for service to interconnect to the Tomhicken Switchyard.³⁵ Finally, the purported benefit that Phase One will add an additional switchyard to PPL Electric's 230 kV network³⁶ is speculative because it is contingent upon Customer One's load materializing as anticipated, which is uncertain to occur because of ongoing local land use litigation.³⁷

²⁷ PPL Electric St. 1 at 4.

²⁸ *Id.*

²⁹ Tr. 454:10-15.

³⁰ PPL Electric St. 1 at 3. The LON states that the customer's load would increase to approximately 1,980 MW by 2033. LON ¶ 10.

³¹ OCA St. 1 at 7.

³² PPL Electric St. 1 at 4; PPL Electric St. 1-R at 27.

³³ Zola Cross Exh. 2; Tr. 484:16-85:5.

³⁴ PPL Electric St. 1 at 5:6.

³⁵ Tr. 437-38.

³⁶ PPL Electric St. 1-R at 27.

³⁷ Zola Cross Exh. 2; Tr. 484:16-85:5.

2. Economic Development

While in its initial filing PPL Electric claimed that the interconnection of Customer One will facilitate and promote economic development in the region, PPL Electric did not submit testimony to substantiate this claim.³⁸

3. Reliability

The evidence calls into question PPL Electric's claimed reliability benefits and actually shows that the harms of the project center around reliability, as explained further below. At the outset, PPL Electric did not perform a forward-looking quantitative analysis demonstrating that the claimed benefits of the Phase One facilities will materialize.³⁹ Specifically, PPL Electric claimed that Phase One is beneficial to PPL Electric's existing ratepayers because it may "produce[] reliability benefits by creating another path for power to travel south from the Susquehanna 230 Switchyard" which may "increase operational flexibility, improve the Company's ability to take line outages in the area, and improve overall 230 kV system reliability."⁴⁰ However, PPL Electric's own evidence supporting its claimed network benefits assumes that both Phase One and Phase Two are constructed. As explained below, the evidence shows that the reliability-related harms of Phase One are more likely than benefits.

4. Costs and Rates

The evidence shows that interconnection of Customer One, based on the terms and conditions of Rate LP-6, an initial load of 12 MW, and the inclusion of the cost of the Phase One facilities in PPL Electric's transmission rate base, may produce up to \$4.68 in annual savings for a residential customer using 1,000 kWh per month, based on PPL Electric's transmission rates as

³⁸ LON ¶ 11.

³⁹ OCA St. 2 at 100.

⁴⁰ LON ¶¶ 11, 13.

of January 1, 2026.⁴¹ However, this same analysis is dependent upon certain assumptions that may or may not occur. While the projected rate impact is dependent these assumptions materializing, the record shows that other ratepayers will pay the costs of Phase One in transmission rates because PPL Electric plans to assign approximately \$38.4 million, or 64%, of the Phase One Project's total \$59.9 million cost to existing ratepayers, even though the Project was designed principally around the interconnection requirements of Customer One, a single data center customer.⁴² Even though other existing ratepayers will be assigned and allocated the costs of Phase One, the record establishes that the Project is not caused by existing ratepayers as it does not address a pre-existing reliability deficiency. The sole purpose of the Phase One Project is to interconnect and serve Customer One's peak demand and that, absent Customer One's interconnection request, no pre-existing reliability need existed that would otherwise require the Phase One Project.⁴³

B. Harms

1. Growing Resource Adequacy Shortage Due to Data Center Demand

The significance of Customer One's demand is explained by the broader conditions confronting the PJM region and Pennsylvania. PJM has acknowledged that its system is experiencing increasing resource adequacy concerns, with the 2027/2028 Base Residual Auction clearing 5.6% below the amount of capacity resources that PJM intended to procure in order to preserve its resource adequacy planning standard.⁴⁴ PJM anticipates that this resource adequacy shortage will continue into the future, one of the inciting factors for its proposed Reliability Backstop Procurement.⁴⁵ The Synapse resource adequacy reported conducted on behalf of the

⁴¹ PPL Electric Exh. BLJ-3R.

⁴² LON ¶ 39.

⁴³ OCA St. 2 at 9.

⁴⁴ OCA St. 1 at 13; *see also* Tr. 626-27, 631-32 (explaining the impact of resource adequacy deficiency on loss of load expectation and how that expectation is determined through modeling).

⁴⁵ *See* OCA St. 1SR at 8-10 (describing PJM's targeted backstop auction procurement quantity to be the capacity shortfall for the 2028/2029 delivery year).

Commission indicates that the resource adequacy crisis is worsening in the coming years, increasing the number of load loss events to nearly six times the current resource adequacy planning criteria.⁴⁶ Importantly, the evidence shows that PPL Electric has conducted no analysis of the impact of Customer One's incremental load on regional resource adequacy, has not verified that Customer One has secured electric supply or that its electricity supplier can and will deliver sufficient supply to the PPL Electric system to meet the suppliers' obligations to all its customers, and as a matter of practice does not verify additional customers' impact on resource adequacy.⁴⁷

2. Reliability

The evidence shows that the harms include that Phase One, standing alone, is insufficient to safely and reliably serve Customer One's load above 400 MW and that no tariff mechanisms currently ensures that Customer One's usage will be curtailed should its demand exceed the threshold where reliability violations will occur.⁴⁸ Indeed, PPL Electric's own evidence establishes that Customer One's load will independently reach a level – at 400 MW – that will create identified North American Electric Reliability Corporation (NERC) reliability violations on the existing transmission system.⁴⁹ PPL Electric recognizes that additional transmission facilities, referred to as Phase Two,⁵⁰ and/or mandatory interruptible service, are necessary to address these future system conditions.⁵¹ Yet, Phase Two has not been approved yet by the Commission,⁵² and neither PPL Electric's tariff nor the contract between PPL Electric and Customer One based in the tariff, provide for mandatory interruptible service.⁵³

⁴⁶ Tr. 626:23-627:8.

⁴⁷ Tr. 475:20-477:23; OCA Cross Exh. 4 at 2 (“PPL Electric does not request confirmation that large load customers have secured adequate supply.”).

⁴⁸ PPL Electric St. 1 at 4.

⁴⁹ Tr. 443:15-21, 446:20-25.

⁵⁰ Tr. 443:15-444:14

⁵¹ Tr. 548:16-550:9.

⁵² Tr. 461:14-18.

⁵³ Tr. 478:4-11.

The record further shows that Phase One alone will not accommodate Customer One's full demand without producing reliability violations, specifically thermal overloads at or above 400 MW, or voltage violations at or above 700 MW, of additional load in the Hazleton area. The evidence shows that outage and safety risks associated with thermal overloads and voltage violations are potentially severe. Thermal overloads are a category of NERC reliability standard violations that occur when too much current flows through a transmission line, causing it to heat beyond its thermal rating.⁵⁴ Thermal overloads can cause line or other types of asset failures, power shifting to other lines resulting in other assets being overheated, or line sagging and associated fire risks.⁵⁵ Voltage violations are also a category of NERC reliability standard violations when a transmission line operates at a voltage, or responds to a sudden change in voltage, beyond its operating threshold.⁵⁶ Voltage violations, similarly, can cause cascading outages, loss of transmission lines, or other adverse effects on the reliability of the transmission system.⁵⁷ This evidence shows that if only the Phase One facilities are constructed, then PPL Electric's existing system would be unable to serve Customer One's full load of 965 MW.⁵⁸

To mitigate or prevent thermal overloads and voltage violations from occurring, the record shows that Phase Two facilities are necessary to resolve those conditions⁵⁹ and mandatory interruptible service is necessary to manage those conditions.⁶⁰ Yet, Phase Two is not part of this proceeding and has not been fully reviewed or approved by the Commission. Indeed, PPL Electric's own evidence supporting its claimed network benefits assumes that both Phase One and

⁵⁴ Tr. 447:1-5.

⁵⁵ Tr. 447:6-451:18, 747:25-748:23.

⁵⁶ Tr. 749:22-750:12

⁵⁷ Tr. 452:12-453:15, 748:25-749:20.

⁵⁸ Tr. 454:17-22.

⁵⁹ PPL Electric St. 1 at 4-5.

⁶⁰ *See* Tr. 548:16-550:9.

Phase Two are constructed. Thus, the record shows that Customer One's anticipated demand above 400 MW cannot be served safely and reliably by Phase One alone.

The record further shows that Customer One's service will not be curtailed if its demand or consumptions reaches levels that produce the identified thermal overloads and voltage violations.⁶¹ PPL Electric's witness testified during cross examination that Customer One will be curtailed in these conditions;⁶² however, the record shows there is no evidence to corroborate these statements of PPL Electric's witness. For example, the record shows that Rate LP-6 provides a voluntary interruptible service option,⁶³ and despite the availability of a voluntary interruptible service option, Customer One has elected firm service, not interruptible service, and PPL Electric agreed to the same.⁶⁴ The absence of a demonstrated curtailment mechanism is particularly significant because the record establishes that the resulting overloads and voltage violations can cause system outages for other customers and even potentially cascading outages.⁶⁵

3. Stranded Cost-Related Risks

Despite the estimated downwards pressure that the interconnection of Customer One would place on PPL Electric's residential customers' transmission service charges, PPL Electric will still be adding approximately 64%, \$38.4 million, of the Phase One facilities' costs to its transmission rate base.⁶⁶ If Phase Two of the Project is approved as proposed, this amount would increase by \$118.5 million, assigned entirely to PPL Electric's transmission customers, for a total ratepayer exposure of \$156.9 million.⁶⁷ PPL Electric did not state that 100% of the but-for costs of Customer One's interconnection would be directly assigned to Customer One but, instead, only the costs for

⁶¹ Tr. 551:1-554:11.

⁶² See PPL Electric Hearing Exh. 3; *see also* Tr. 542:9-554:11.

⁶³ Tr. 478:4-7.

⁶⁴ Tr. 478:8-11, 549:13-550:9.

⁶⁵ Tr. 448-53, 746-49.

⁶⁶ PPL Electric Exh. BLJ-3R.

⁶⁷ OCA St. 2 at 91.

facilities that have no degree of integration with PPL Electric's transmission network would be directly assigned.⁶⁸ Absent a 100% but-for cost assignment, existing customers are not completely protected from stranded costs if Customer One's load does not materialize.⁶⁹

4. Public Policy Consensus Addressing Data Centers

The evidence demonstrates that a public policy consensus exists, providing that data centers should be added to electricity systems in a manner that ensures the prevention of service reliability degradation and cost shifting for existing ratepayers.⁷⁰ Specifically, the Ratepayer Protection Pledge,⁷¹ White House National Energy Dominance Council and Governors of PJM States Statement of Principles,⁷² Federal Energy Regulatory Commission (FERC),⁷³ NERC,⁷⁴ PJM Board of Managers,⁷⁵ Governor of Pennsylvania,⁷⁶ and Commission⁷⁷ have all recognized that the interconnection of new, large load data center customers can create reliability- and cost-related risks for existing customers and that these risks and costs should be placed onto the data centers causing the risks and costs, and not shifted to other ratepayers. The record demonstrates that the completion of Phase One will present risk shifting, as PPL Electric has not put into place mechanisms to manage Customer One's load in light of known transmission constraints and a growing resource adequacy shortage, and cost shifting, as existing ratepayers will be assigned the costs of the Phase One Project.

⁶⁸ OCA St. 1 at 21.

⁶⁹ OCA St. 1SR at 16.

⁷⁰ OCA St. 1 at 6-25; OCA St. 1SR at 5-15, 17-20.

⁷¹ OCA St. 1 at 10-11; OCA St. 1SR at 3.

⁷² OCA St. 1 at 11.

⁷³ OCA St. 1 at 11.

⁷⁴ OCA St. 1 at 12.

⁷⁵ OCA St. 1 at 13-14; OCA St. 1SR at 8-11.

⁷⁶ OCA St. 1 at 16; OCA St. 1SR at 6-8.

⁷⁷ OCA St. 1 at 16-17; OCA St. 1SR at 5-6.

V. SUMMARY OF ARGUMENT

In this proceeding, PPL Electric must demonstrate, in relevant part, that (1) there is a need for the Phase One Project by demonstrating that the benefits outweigh the costs or harms of the Phase One Project; (2) the Phase One Project will not create an unreasonable risk of danger to the health and safety of the public; and (3) the Phase One Project will have a minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology, and the available alternatives.⁷⁸ As explained further below, PPL Electric failed to meet its burden of proof that the LON should be approved as proposed because PPL Electric did not present evidence sufficient to demonstrate that these three legal criteria are met by PPL Electric's proposal.

The relevant facts show there are benefits and harms related to the Phase One Project. However, PPL Electric did not demonstrate that the benefits outweigh the harms and, therefore, PPL Electric did not demonstrate a need for approval of Phase One. First, the benefits that PPL Electric claims will result from the Phase One facilities are speculative: Customer One is not permitted, due to an ongoing land use dispute, to construct its end-use facilities and begin taking service and, further, the claimed reliability benefits of the Phase One facilities are contingent on Commission approval of a separate, ongoing proceeding. Second, the addition of Customer One's significant load during a period of resource inadequacy for the foreseeable future exacerbates an already existing reliability risk for PPL Electric's existing customers, when existing customers are not contributing to resource inadequacy and PPL Electric has not met its statutory obligation to ensure Customer One will have sufficient electric supply through new capacity resources or interruptible service. Third, Customer One's bargained-for, contract peak load will cause thermal

⁷⁸ 52 Pa. Code § 57.76(a).

overloads and voltage violations if additional transmission facilities are not built, creating new reliability risks for PPL Electric's existing customers without sufficient tariffed or contractual remedies to permit PPL Electric to ensure that the load causing these reliability risks is not reached and, if it is reached, that Customer One will be interrupted without impacting existing customers. Fourth, and finally, Customer One's interconnection – while it may exert slight downwards pressure on residential customers' rates – will increase PPL Electric's overall transmission rates, assign and allocate costs to non-data center customers, and create new stranded cost-related risks contrary to federal, regional, and state public policy directives. Therefore, PPL Electric failed to demonstrate the need for Phase One.

PPL Electric did not demonstrate that the Phase One facilities would not create an unreasonable risk of danger to the health and safety of the public because the addition of Customer One to PPL Electric's system – without adequate just and reasonable tariff measures in place – will cause reliability risks associated with resource inadequacy and violations of NERC reliability standards, i.e. thermal overloads and voltage violations.

PPL Electric did not demonstrate that the Phase One facilities will have a minimum adverse impact to the environment because the public input hearing testimony presented in this case reflects significant potential environmental impact associated with the Phase One Project.

As a result, the Commission should deny the Phase One LON with instructions to refile a siting application for these facilities that provides evidence of a non-speculative need for the facilities and that PPL Electric has put into place tariff measures to mitigate reliability and rate risks associated with the interconnection and service of Customer One. If the Commission approves the Phase One LON, it should do so only subject to certain conditions, including the

demonstration of a need for the Project, approval of the Phase Two Application, and other such conditions as the Commission deems appropriate.

VI. ARGUMENT

Pursuant to Sections 332(a) and 1501 of the Public Utility Code, PPL Electric bears the burden of demonstrating that the Project is necessary to provide adequate, efficient, safe, and reasonable service and facilities.⁷⁹ Under the Commission's regulations governing high-voltage transmission lines, PPL Electric must demonstrate:

(1) That there is a need for it.

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

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

(4) That it will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives.⁸⁰

The Commission must therefore determine whether PPL Electric has satisfied each of these requirements before authorizing construction of the Project.

For the reasons set forth in full below, the OCA submits that PPL Electric has failed to meet its burden of proof. Specifically, PPL Electric has failed to demonstrate (1) that the Phase One facilities are needed; (2) that the Phase One facilities will not create an unreasonable risk of danger to the health and safety of the public; and that (3) the Phase One facilities are in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth. For these reasons, the OCA respectfully requests that the LON be denied and that PPL Electric be directed to reapply for the siting and construction of the Phase One facilities,

⁷⁹ 66 Pa. C.S. §§ 332(a), 1501.

⁸⁰ 52 Pa. Code § 57.76(a).

inclusive of evidence demonstrating that sufficient protections are in place to ensure that the Phase One facilities are needed and will not shift reliability- or cost-related risks to PPL Electric's existing customers, consistent with the Commission's regulations and Public Utility Code.

A. PPL Electric failed to demonstrate that Phase One is needed because it will have a net adverse impact on current PPL Electric ratepayers.

While the OCA's witnesses did "not contest the need for the Tomhicken Switchyard to serve" Phase One facilities to interconnect and begin service to Customer One,⁸¹ the Commission's inquiry does not end there. The determination of "need" for purposes of Section 57.76(a)(1) of the Commission's regulations is not narrowly construed.⁸² Indeed, the Commonwealth Court has previously found that "necessity from an engineering perspective" is not determinative of whether need is established.⁸³ The Commission has previously, and the Commonwealth Court has affirmed, a broader application of the need determination, which considers a cost-benefit analysis inclusive of considerations of federal, regional, state, and local "policy issues revolving around the transmission grid."⁸⁴ As a result, the Commission cannot mechanically apply the "need"

⁸¹ See OCA St. 2 at 45. To be clear, such statement of "need" is limited to stating that, without the Phase One facilities, PPL Electric would be unable to connect and serve Customer One.

⁸² *Hess v. Pa. PUC*, 107 A.3d 246, 260 (Pa. Cmwlth. 2014).

⁸³ *Pa. Power & Light Co. v. Pa. PUC*, 696 A.2d 248, 250 (Pa. Cmwlth. 1997).

⁸⁴ *In Re: Application of Trans-Allegheny Interstate Line Company (TrAILCo) For approval: 1) for a certificate of public convenience to offer, render, furnish or supply transmission service in the Commonwealth of Pennsylvania; 2) authorization and certification to locate, construct, operate and maintain certain high-voltage electric substation facilities; 3) authority to exercise the power of eminent domain for the construction and installation of aerial electric transmission facilities along the proposed transmission line routes in Pennsylvania; 4) approval of an exemption from municipal zoning regulation with respect to the construction of buildings; and 5) approval of certain related affiliated interest arrangements*, 2008 Pa. PUC LEXIS 35, *47-48 (Order Nov. 13, 2008) (*TrAILCo*) *aff'd* *Energy Conservation Council of Pa. v. Pa. PUC*, 995 A.2d 465, 484-86 (Pa. Cmwlth. 2010) (*ECC I*); *Applications of Transource Pennsylvania, LLC for approval of the Siting and Construction of the 230 kV Transmission Line Associated with the Independence Energy Connection -- East and West Projects in portions of York and Franklin Counties, Pennsylvania; Petitions of Transource Pennsylvania, LLC for a finding that a building to shelter control equipment at the Rice Substation in Franklin County, Pennsylvania and the Furnace Run Substation in York County, Pennsylvania are reasonably necessary for the convenience or welfare of the public; Application of Transource Pennsylvania, LLC for approval to acquire a certain portion of the lands of various landowners in York and Franklin Counties, Pennsylvania for the siting and construction of the 230 kV Transmission Line associated with the Independence Energy Connection East and West Projects as necessary or proper for the service, accommodation, convenience or safety of the public*, 2021 PA. PUC LEXIS 143, *57-58 (Order May 20, 2021) (*Transource 2021*) *aff'd* *Transource Pa., LLC v. Pa. PUC*, 278 A.3d 942, 960-61 (Pa. Cmwlth. 2022).

determination to examine *only* the need for additional facilities to interconnect Customer One, but must, instead, consider whether the benefits of approving the LON outweigh the costs.⁸⁵

The OCA submits in the following sections that the benefits do not outweigh the costs. Specifically, (1) it is uncertain whether Customer One will require an interconnection and, if it does interconnect, the Phase One facilities will provide no reliability benefits to PPL Electric's other customers prior to the construction of the Phase Two facilities; (2) PPL Electric has failed to verify that the interconnection of Customer One will not negatively impact regional resource adequacy and, therefore, the reliability of its system; (3) the interconnection and service of Customer One will create NERC violations without adequate controls in PPL Electric's tariff to ensure continued reliable service; and (4) Customer One's interconnection will cause current PPL Electric ratepayers to pay transmission costs they would not otherwise be required to pay. For these reasons, PPL Electric has failed to carry its burden of proof, and the Commission should disapprove PPL Electric's LON and direct PPL Electric to reapply for siting authority with the evidence identified by the OCA *infra* to ensure that the Phase One Project will not negatively impact PPL Electric's existing customers.⁸⁶

⁸⁵ *Bell Atl. – Pa., Inc. v. Pa. PUC*, 672 A.2d 352 (Pa. Cmwlth. 1995) (the Commission is required to render consistent opinions that affirm, overrule, or distinguish prior opinions).

⁸⁶ *See* 52 Pa. Code § 57.75(e) (“At hearings held under this section, the Commission will accept evidence upon, and in its determination of the application it will consider, *inter alia*, the following matters: (1) The present and future necessity of the proposed HV line in furnishing service to the public.”). The OCA submits that the additional evidence it recommends the Commission require PPL Electric to furnish is captured within Section 57.75(e)(1), evidence of present and future necessity. However, to the extent that PPL Electric disagrees with this assertion, the Commission will accept evidence on matters explicitly identified in Section 57.75(e) “*inter alia*” all other evidence necessary to determine the approval or disapproval of the siting application; therefore, the plain text of the Commission's regulations provide that the Commission's taking of evidence is not strictly limited in this proceeding or similar proceedings.

1. PPL Electric failed to demonstrate that the Phase One facilities will produce benefits to new and/or existing customers.

PPL Electric has failed to meet its burden of proof with respect to the purported need for the Phase One Project arising out of Customer One’s interconnection requirements or other purported reliability-related benefits associated with the Phase One facilities. As a result, the Commission should give little weight to PPL Electric’s averments regarding need for the Phase One Project when reaching its ultimate determination. Prior Commission decisions which approved the construction of transmission facilities while other regulatory approvals were pending included independent and substantial evidence that construction must take place regardless of the outcome of the pending approvals.⁸⁷ For the reasons set forth below, no such evidence exists in this case and, without the interconnection of Customer One, the Phase One Project is not needed.

First, Customer One “is the need driver for this [LON]”⁸⁸ but does not yet have the requisite zoning and land use approvals to construct its end use facilities.⁸⁹ OCA witness Konidena testified that “[if] the Customer does not interconnect, the need driver for this project disappears, and the Tomhicken Switchyard serves no demonstrated independent system reliability purpose.”⁹⁰ Further, that “[a]uthorizing construction [of Phase One] before the Customer’s ability to interconnect is resolved would expose Pennsylvania ratepayers to \$38.4 million in costs for infrastructure that may never serve its intended purpose.”⁹¹ However, PPL Electric requests that the Commission leave it up to the Company’s discretion to proceed with construction “if a need persists” in PPL Electric’s estimation.⁹² Due to the lack of evidence supporting that a need to interconnect

⁸⁷ *Energy Conservation Counsel of Pa. v. Pa. PUC*, 25 A.3d 440, 452 (Pa. Cmwlth. 2011) (*ECC II*).

⁸⁸ PPL Electric St. 1 at 5:8.

⁸⁹ See Zola Cross Exh. 2; Tr. 484:16-85:5; *NP Hazleton Holdings I, LLC v. Hazle Twp. Bd. of Supervisors et al*, Docket No. 827 CD 2026, (Pa. Cmwlth., Appeal Filed June 10, 2026) (providing that an appeal of the order admitted to evidence as Zola Cross Exh. 2 is on appeal before the Commonwealth Court).

⁹⁰ OCA St. 2 at 62.

⁹¹ OCA St. 2 at 62.

⁹² PPL Electric St. 1-R at 14-15.

Customer One exists at this time, the Commission should find that PPL Electric failed to meet its burden of proof regarding need and affirmatively reject PPL Electric's attempt to obtain Commission approval to construct the Phase One facilities without a showing of the customer-driven need which gave rise to this case.

Second, while PPL Electric argues that the Phase One facilities are “potentially” needed if Customer One does not complete the development of its facility,⁹³ the Company has failed to adequately support its assertion. PPL Electric has not executed a contract with any other customer to directly interconnect to the Phase One facilities.⁹⁴ PPL Electric was not planning, nor did PJM plan, any upgrades for the Susquehanna-Harwood #1 or #2 lines prior to Customer One's interconnection request.⁹⁵ Neither of the Susquehanna-Harwood #1 or #2 lines were heavily loaded to the point where the lines created reliability violations in recent years.⁹⁶ The Susquehanna-Harwood #1 and #2 lines previously experienced some congestion, but the congestion has been alleviated since PPL Electric installed Dynamic Line Ratings (DLR) over three years ago.⁹⁷ As stated by OCA witness Konidena, the Phase One facilities “do[] not provide existing ratepayers with any incremental N-1 reliability margin beyond what is needed to serve this customer.”⁹⁸ PPL Electric did not demonstrate that, other than the customer interconnection, any reliability-related need exists for the Phase One facilities.

Third, PPL Electric has not secured Commission approval for the siting and construction of Phase Two, meaning that the purported reliability-related benefits associated with Phase Two

⁹³ PPL Electric St. 1 at 5:6

⁹⁴ Tr. 437-38.

⁹⁵ Tr. 461; OCA St. 2 at 12 (“the load growth on the Susquehanna-Harwood corridor from PPL Electric's existing customers was not creating any reliability need”).

⁹⁶ OCA St. 2 at 9, 20 (“Without this customer's load addition, no P1 reliability violation exists on the existing S[usquehanna]-H[arwood] lines.”).

⁹⁷ OCA St. 2 at 9, 34 (“PPL further confirmed that DLR activation on the Susquehanna-Harwood path — combined with terminal equipment upgrades — resolved the congestion PPL's witness cited in direct testimony.”).

⁹⁸ OCA St. 1 at 58.

are speculative and should be given little weight. Namely, PPL Electric divided its project into two halves, Phase One – the subject of this proceeding – and Phase Two – the subject of a separate, ongoing transmission line siting case.⁹⁹ Any purported benefits relying on the Commission’s issuance of an order in a pending proceeding necessarily presume Commission approval where no such approval exists.

For example, the spacing of, and number of bays in, the proposed Tomhicken Switchyard are the direct result of accommodating the future Phase Two facilities, if approved.¹⁰⁰ The proposed Tomhicken Switchyard is specifically designed to have line termination points for Phase Two.¹⁰¹ Phase One’s ability to facilitate service to new customers through providing additional 230 kV pathways requires Phase Two’s construction in order to provide those pathways.¹⁰² Absent the construction of Phase Two, or the addition of customer interconnections, the Tomhicken Switchyard provides no marginal benefit to PPL Electric’s transmission system other than that provided any hypothetical 230 kV switchyard that splits an existing 230 kV double-circuit corridor:¹⁰³ this showing is insufficient to, by itself, demonstrate a need for the Phase One facilities.¹⁰⁴ The Commission’s approval of the LON based on purported benefits associated with

⁹⁹ See *Application of PPL Utilities Corporation, Filed Pursuant to 52 Pa. Code Chapter 57 Subchapter G, for Approval to (1) Bifurcate and Rebuild 4.4 Miles of the Existing Sunbury-Susquehanna #1 230 kV Transmission Line; (2) Construct 0.9 Miles of New Transmission Line Tap for Future 230 kV Double-Circuit Operation; (3) Raise Approximately 0.5 Miles of the Sunbury-Susquehanna 500 kV Transmission Line; and (4) Construct 11.2 Miles of New Double-Circuit 230 kV Transmission Line for Future Double-Circuit 500 kV Capacity, Located in Black Creek, Hazle, Hollenback, Nescopeck, and Sugarloaf Townships in Luzerne County, Pennsylvania*, Docket Nos. A-2026-3061547 *et al.*

¹⁰⁰ OCA St. 2SR at 22; Tr. 458.

¹⁰¹ OCA St. 2SR at 21.

¹⁰² PPL Electric St. 1-R at 27.

¹⁰³ This is before considering that, with the inclusion of Customer One’s load, the existing Susquehanna-Harwood #1 and #2 230 kV corridor will be less capable of power delivery than at present. See PPL Electric St. 1-R at 27 (“the initial Phase 1 scope does not directly increase the capacity of the Susquehanna – Harwood corridor”); see also PPL Electric St. 1 at 4-5 (the Phase One facilities will be unable to serve Customer One’s full load of 965 MW without causing reliability violations).

¹⁰⁴ See OCA St. 2 at 58 (“Without Phase 2 and without the customer, the Tomhicken Switchyard carries approximately 1,400 MVA of existing corridor flow — the same Susquehanna-Harwood load that was being served before the project, now rerouted through a new switching point. Rerouting creates no new value for existing ratepayers.”) (citations omitted).

the construction of *any* new 230 kV switchyard would give PPL Electric free reign to propose a new 230 kV switchyard where no other independent system benefit exists.

In sum, PPL Electric failed to satisfy its burden of proof to demonstrate need. PPL Electric did not present sufficient evidence to demonstrate (1) Customer One will be able to commence service; (2) the Phase One facilities provide reliability benefits independent of interconnecting a new customer; or (3) the Phase One facilities provide reliability benefits independent of Phase Two. As a result, the record evidence presented in this proceeding indicates that the Commission should disapprove the LON for failure to satisfy the requirements of Section 57.76(a)(1) of the Commission's regulations.¹⁰⁵ However, if the Commission determines to approve the LON, then the OCA respectfully requests that the Commission condition such approval on (1) the ability of Customer One to obtain the necessary permits and approvals to construct its own facilities and commence service,¹⁰⁶ and (2) the Commission's approval of Phase Two of the Overall Project, to the extent that such approval would provide the reliability benefits averred by PPL Electric in this proceeding.

2. Approval of Phase One will create the potential for resource inadequacy and, therefore, reliability risks to existing PPL Electric customers.

PPL Electric failed to present evidence that it had conducted sufficient due diligence to ensure that the construction of the Phase One facilities and subsequent interconnection of Customer One will not degrade the reliability of its transmission system through resource inadequacy. Absent a showing from PPL Electric that the interconnection of Customer One will

¹⁰⁵ 52 Pa. Code § 57.76(a)(1).

¹⁰⁶ PPL Electric witness Lookup testified that, upon the advice of PPL Electric counsel, the Commission may consider imposing such a condition on its approval of the LON. PPL Electric St. 1-R at 14:16-21. *See* 52 Pa. Code § 57.76(a) ("The Commission will issue its order, with its opinion, if any, *either granting or denying the application, in whole or in part, as filed or upon the terms, conditions or modifications*, of the location, construction, operation or maintenance of the line as the Commission may deem appropriate.") (emphasis added); *but see* 52 Pa. Code § 57.72(d)(5) ("The Commission will review and, by order, approve or disapprove a letter of notification.").

not adversely impact regional resource adequacy, approval of the LON would compromise the reliability of PPL Electric's system. Therefore, the OCA recommends that the Commission deny the LON unless and until PPL Electric has attained such assurances, as described by OCA witness Felder.

Resource adequacy is a component of electric system reliability. The General Assembly defined reliability in the Public Utility Code as follows:

“Reliability.” 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.¹⁰⁷

The FERC has reached similar conclusions.¹⁰⁸ The FERC, however, has made it expressly clear that its authority does not preempt state action to preserve resource adequacy, including in the PJM region.¹⁰⁹ The Public Utility Code encourages that electric utilities work with regional and federal entities “to ensure the continued provision of adequate, safe and reliable electric service to the citizens and businesses of this Commonwealth.”¹¹⁰

As a result, though there are aspects of resource adequacy assurance beyond the scope of the Commission's jurisdiction, the Commission and the EDCs it regulates are nevertheless charged with maintaining reliability, including resource adequacy, for the electric system.¹¹¹ The General

¹⁰⁷ 66 Pa. C.S. § 2803.

¹⁰⁸ See, e.g., *Planning Res. Adequacy Assessment Reliability Std.*, 134 FERC P61,212, ¶ 25 (2011) (“If resources cannot meet load, or are insufficient to provide a reserve margin above expected load, then instability, uncontrolled separation or cascading failures can result from the unanticipated loss of a system element. If this situation occurs, reliable operation is not achieved due to resource inadequacy.”)

¹⁰⁹ *Id.* at ¶¶ 20-26; *Cal. Indep. Sys. Operator Corp.*, 116 FERC P61,274, ¶ 1112 (2006); see also 16 U.S.C. § 824o(i)(3) (preserving state authority to act on matters of reliability, except where such action would be inconsistent with a NERC reliability standard).

¹¹⁰ 66 Pa. C.S. § 2805(a).

¹¹¹ 66 Pa. C.S. § 1501.

Assembly has specifically identified that, in carrying out its duties to maintain system reliability, in pertinent part:

[T]he electric distribution company shall implement procedures to require all electric generation suppliers to deliver energy to the electric distribution company at locations and in amounts which are adequate to meet the energy supplier's obligations to its customers.¹¹²

Put simply, part of an EDC's obligation to maintain the integrity of its distribution system expressly includes ensuring that retail customers' electric supply is sufficient and delivered where the customer needs it. The Commonwealth Court has also identified that an EDC plays a unique and irreplaceable role in maintaining system reliability: "only the distributor is in position to enhance system reliability because of the myriad of generators and transmission companies that place power in a particular distribution grid."¹¹³ Further, the Court recognized that "some mechanism has to be in place so that during periods of peak demand, there are no brownouts or blackouts on the system," and that the Commission can "order customers by whatever scheme to curtail usage during abnormal peaks" so long as substantial evidence supports that there is no reasonable alternative.¹¹⁴

If a utility were to interconnect a new customer, and the interconnection of that customer would worsen system reliability for existing customers – including through creating resource inadequacy – then such interconnection would constitute unreasonable or undue discrimination in service.¹¹⁵ As the Commission has stated, "discrimination will be found if any unreasonable preference or difference in the treatment of one party versus another is shown in the provision of service": a utility must offer a reasonable justification when it provides service to one class of

¹¹² 66 Pa. C.S. § 2807(a).

¹¹³ *PP&L Indus. Customer Alliance v. Pa. PUC*, 780 A.2d 773, 782 (Pa. Cmwlth. 2001).

¹¹⁴ *Id.*

¹¹⁵ 66 Pa. C.S. § 1502.

customers while denying the same to another.¹¹⁶ During historical periods of resource inadequacy, the Superior Court reversed Commission action as an unlawful discrimination in service when residential customers' access to scarce resources was threatened as a result of Commission-authorized extensions of the distribution system.¹¹⁷ Through successive iterations of the Public Utility Code, the General Assembly preserved that the conditions under which a utility is required to offer extensions of service are subject to a utility's "reasonable rules and regulations governing the conditions under which it shall be required to render service."¹¹⁸

To the extent that PPL Electric argues that "resource adequacy" is distinct from "reliability,"¹¹⁹ PPL Electric's arguments are directly contrary to the General Assembly's intent because reliability for purposes of the Electricity Generation Customer Choice and Competition Act is defined to include resource adequacy.¹²⁰ Furthermore, at hearings, PPL witness Lookup identified some of the reliability risks associated with resource inadequacy on the transmission system, including equipment overloading, conductor failure, and equipment failures.¹²¹ In order to

¹¹⁶ *Pa. PUC v. Columbia Gas of Pa., Inc.*, 2018 Pa. PUC LEXIS 431, *75, *77 (Order Dec. 6, 2018) (*Columbia 2018*).

¹¹⁷ *United Nat. Gas Co. v. Pa. PUC*, 33 A.2d 752, 757 (Pa. Super. 1943) ("orders of the Commission relative to the furnishing of gas to applicants outside the *distribution system* of the company must be reasonable, and based on the benefit to the consuming public, not merely on the benefit to the individual applicant. There may be discrimination between classes of consumers, provided it is not unreasonable and rests on a sound basis of fact...") (emphasis in original); *Pa. Gas Co. v. Pa. Pub. Serv. Comm'n*, 83 Pa. Super. 557, 566 (Pa. Super. 1924) ("If a greater quantity of gas is not reasonably obtainable, and the present supply is insufficient for present domestic use, the commission may not require the company to extend its lines into additional or annexed territory even for domestic use.").

¹¹⁸ 66 Pa. C.S. § 1501.

¹¹⁹ PPL Electric St. 5-R at 54-55; Tr. 510-11. The OCA further notes that PPL Electric witness Taylor was unable to, or elected not to, testify at hearings regarding the extent to which PPL Electric and PJM, as entities responsible for transmission planning, consider resource adequacy, despite making statements regarding the same in his testimony. Tr. 502:19-03:20, 507:3-9, 511:3-10, 512:10-15, 513:13-14:16. Mr. Taylor's testimony, therefore, should be afforded little weight on this issue.

¹²⁰ 1 Pa. C.S. § 1921(b); *Phila. Gas Works v. Pa. PUC*, 249 A.3d 963, 970 (Pa. 2021) ("The plain language of a statute is the best indication of the General Assembly's intent, and where the statutory language is clear and unambiguous, we must give effect to the plain language thereof.").

¹²¹ Tr. 471:13-72:10. While the OCA does not have reason to dispute that PPL Electric and PJM's operators are capable of utilizing automatic or manual equipment to prevent such failures, transmission planning processes require planning contingencies for equipment failures because they can and do occur. Tr. 469:22-70:3; OCA St. 1 at 5 (defining an "N-1 contingency" as "the loss of a single transmission element such as a transmission line or transformer — a routine event that all transmission systems must be designed to survive."). The Commission should look beyond an averment that PPL Electric operates its system to be safe and engage more closely with planning that may exacerbate reliability

preserve the integrity of the transmission system, PPL Electric would resort to implementing its emergency procedures, which include instituting rolling blackouts throughout its transmission and distribution systems.¹²² In short, the direct consequence of resource inadequacy is that customers lose service. OCA witness Felder provided the following overview:

[I]f large loads are added to the electric power system without sufficient new supply to serve them or without meaningful policies to curtail their electricity consumption during times of supply shortages, then the reliability, specifically the resource adequacy, of the system will be degraded. This degradation could result in mandatory load shedding of ordinary ratepayers, such as residential customers. As more load is added to PJM that is not sufficiently supplied or curtailable, the frequency, magnitude, and duration of potential mandatory load-shedding events increase.¹²³

Other than having general conversations with potential large load customers regarding their source of electric supply, PPL Electric makes no effort to ensure that its potential large load customers have secured adequate generation supply.¹²⁴ PPL Electric does not request documentation¹²⁵ from its customers regarding their source of generation supply, or if they will be taking default service.¹²⁶ The Company does not verify if their customers' choice of supply is new or would qualify under "bring your own capacity" requirements.¹²⁷ The failure to collect these data demonstrates a deficiency in PPL Electric's practices and procedures. Customer One has also elected to take firm (i.e., uninterruptible) service from PPL Electric, despite an interruptible option.¹²⁸ As stated by OCA witness Felder, "[b]y interconnecting large-load customers without

risk, placing greater burdens on PPL Electric's operators to maintain the transmission grid and increasing opportunities for system failures.

¹²² Tr. 472:12-73:1.

¹²³ OCA St. 1 at 8 (citations and footnotes omitted).

¹²⁴ Tr. 476:1-77:23; OCA St. 1 at 17.

¹²⁵ Tr. 476:18-23.

¹²⁶ OCA St. 1 at 17; OCA Cross-Exh. 4 at 2.

¹²⁷ Tr. 475:8-12; OCA St. 1 at 17; OCA Cross-Exh. 4 at 2.

¹²⁸ Tr. 477:25-78:11.

ensuring sufficient supply to serve them, PPL Electric is not providing safe and reliable service to all customers.”¹²⁹

The record evidence in this case demonstrates why this deficiency is particularly egregious: the PJM region is currently facing a resource inadequacy crisis. Beginning next summer, in the 2027/2028 delivery year, PJM forecasts that the region will not have sufficient capacity resources (e.g., power plants, energy storage, demand response, etc.) to meet its reliability requirement, for the first time in the history of the current capacity market construct.¹³⁰ The current period of resource inadequacy can be attributed to the growth in large load, data center customers.¹³¹ At hearings, Dr. Felder testified that the Commission recently published a study indicating that, in the next few years, Pennsylvanians should expect loss of load events more frequently (nearly six times more frequently) than at present, due to decreased resource adequacy.¹³² In other words, the current resource adequacy shortfall is creating reliability risks for Pennsylvania retail electric customers, including PPL Electric customers, that may result in instituting rolling blackouts to preserve the integrity of the transmission system until resource adequacy can be restored.¹³³

This is why a number of federal, regional, and state policy initiatives are under way, which OCA witness Felder identified:

- The Ratepayer Protection Pledge, which data center developers and utilities, including PPL Electric, signed to procure new capacity resources to prevent resource adequacy shortfalls.¹³⁴

¹²⁹ OCA St. 1SR at 12.

¹³⁰ OCA St. 1 at 13 (*quoting* PJM, Board Decisional Letter on Critical Issue Fast Path – Large Load Additions, January 16, 2026, p. 1).

¹³¹ OCA St. 1, n. 29 (*quoting* PJM Independent Market Monitor, CIFP-LLA [Critical Issues Fast Path – Large Load Additions], October 9, 2025, p. 1).

¹³² Tr. 626-27.

¹³³ *Id.* (the report “show[s] that the criteria for one day, one time, ten year criteria, one day 10 years criteria will be violated six times or so, 5.9 more than the standard...”).

¹³⁴ OCA St. 1 at 10-11; OCA St. 1SR at 3.

- The White House National Energy Dominance Council and Governors of PJM States Statement of Principles, which recognized the need to mitigate against resource adequacy risk.¹³⁵
- The FERC, which initiated a potential rulemaking and show cause proceeding with PJM to ensure reliable service.¹³⁶
- NERC, which referred to resource adequacy-related reliability risk, including in the PJM region, as a “five-alarm fire.”¹³⁷
- The PJM Board of Managers, which initiated two FERC filings to procure new capacity resources and establish a new interim resource adequacy service construct for new data center, large load customers.¹³⁸
- The Governor of Pennsylvania, who recommended pursuing an all-encompassing energy strategy to mitigate capacity shortfalls, including issuance of an Executive Order to protect Pennsylvania consumers.¹³⁹
- The Commission, which issued its Large Load Model Tariff to mitigate against risk-shifting, recognizing that additional work needs to be done to ensure reliable service.¹⁴⁰

These policy initiatives are described in full in Dr. Felder’s Direct and Surrebuttal testimonies. However, they are “ongoing,” meaning that they require additional action at the individual EDC level to be implemented, including through proceedings such as this one.¹⁴¹ Since Dr. Felder’s Surrebuttal Testimony, for example, Vice Chair Barrow moved for further Commission action on EDC-level implementation of these overarching state and federal policy objectives, including “incorporate[ing] a pre-emergency provision that implements curtailment protocols” in EDCs’ tariffs, and the Motion passed unanimously.¹⁴² This Motion demonstrates not

¹³⁵ OCA St. 1 at 11.

¹³⁶ OCA St. 1 at 11.

¹³⁷ OCA St. 1 at 12.

¹³⁸ OCA St. 1 at 13-14; OCA St. 1SR at 8-11.

¹³⁹ OCA St. 1 at 16; OCA St. 1SR at 6-8.

¹⁴⁰ OCA St. 1 at 16-17; OCA St. 1SR at 5-6.

¹⁴¹ OCA St. 1SR at 8.

¹⁴² *Motion Directing Staff to Issue Tentative Order Pursuant to the Public Utility Commission’s Provisions at 52 Pa. Code Section 57.52 (Emergency load control and energy conservation by electric utilities) and Establish a Technical Conference On Large Computational Load Cost Allocation*, Item No. 3064961-CMR, Motion of Vice Chair Barrow at 2 (Sep. 10, 2026).

only that these policy initiatives are “ongoing,” but also that they require further action from PPL Electric and other Pennsylvania EDCs to be implemented, including through adjustments to tariffs and operating procedures. Pursuant to the Commission’s decision in *TrAILCo*, it is appropriate to consider these types of policy considerations in this proceeding.¹⁴³

In the opinion of Dr. Felder, a long-standing nationally and internationally recognized expert on the issue of resource adequacy,¹⁴⁴ the 965 MW addition¹⁴⁵ of Customer One’s new load during the current period of resource inadequacy creates reliability risks for PPL Electric’s existing customers.¹⁴⁶ As a result, the interconnection and service of Customer One would be unreasonably and/or unduly discriminatory to PPL Electric’s existing customer base.¹⁴⁷ PPL Electric should maintain “reasonable rules and regulations governing the conditions under which it shall be required to render service” in order to prevent this type of unreasonable and undue discrimination.¹⁴⁸

In order to address and remediate such potential discrimination and unreasonable service, the Commission should undertake a resource adequacy analysis when evaluating transmission line siting proceedings that are designed to interconnect new, large load customers that may negatively impact resource adequacy in Pennsylvania.¹⁴⁹ There is no opportunity other than in this proceeding

¹⁴³ *TrAILCo* at *47-48.

¹⁴⁴ See OCA Exh. FF-1 (providing the 30-page resume and bibliography of Dr. Felder on matters of, *inter alia*, resource adequacy).

¹⁴⁵ Dr. Felder compared 1,000 MW (or 1 GW) to the size of a very large power plant, meaning that Customer One would place demands on PPL Electric’s system which would require a new, large power plant to offset. OCA St. 1 at 7.

¹⁴⁶ OCA St. 1 at 17 (“PPL does not provide any further explanation of how to apply its obligation to serve in a situation when there [is] insufficient supply to meet demand, such as the situation that presently exists in PJM and is likely to persist and increase over time.”).

¹⁴⁷ 66 Pa. C.S. § 1502.

¹⁴⁸ 66 Pa. C.S. § 1501.

¹⁴⁹ See OCA St. 1SR at 14 (“the issues of maintaining reliability and protecting ordinary ratepayers from unwarranted cost increases are within this proceeding’s scope.”).

to limit the interconnection and service of Customer One unless and until resource adequacy can be assured.

PPL Electric failed to produce evidence of *any* resource adequacy assurances from Customer One.¹⁵⁰ Instead, PPL Electric has sought to evade its burden under the Public Utility Code to provide safe, adequate, and reliable service.¹⁵¹ Therefore, the OCA recommends that the Commission disapprove the LON and direct PPL Electric to refile,¹⁵² inclusive of evidence that the connection and service of Customer One would not comprise the reliability of its system for existing PPL Electric customers.

The OCA submits that the evidence necessary to demonstrate that Customer One would not be detrimental to resource adequacy, and, thereby, reliability, could take a number of forms. First, Customer One could satisfy the “bring your own new capacity” requirements established by PJM – either by contract or through the one-time Reliability Backstop Procurement – and be recorded as such in PJM and PPL Electric’s large load registry.¹⁵³ Second, Customer One could take service under PJM’s proposed Interim Resource Adequacy Service (IRAS) proposal, which would place the customer on an interruptible rate, where the customer’s service would be interrupted before – and to the extent of preventing – pre-emergency load management, such as dispatch of demand response resources.¹⁵⁴ PPL Electric’s Rate LP-6 tariff classification for new large load customers already includes a voluntary interruptible rate, meaning that the customer’s election to take service on an interruptible basis would require no further modification to PPL

¹⁵⁰ OCA St. 1 at 17 (“PPL has not determined whether the New Customer, or its suppliers, is bringing its own new capacity; what the New Customer’s impact on resource adequacy, energy, capacity, and ancillary costs is; or whether the New Customer is compliant with the White House Ratepayer Protection Pledge.”).

¹⁵¹ OCA St. 1 at 17 (“PPL’s position is that it is not responsible for the reliability and affordability implications of large loads.”); 66 Pa. C.S. §§ 1501, 2807(a).

¹⁵² 52 Pa. Code § 57.72(d)(5).

¹⁵³ OCA St. 1SR at 9-10.

¹⁵⁴ OCA St. 1SR at 10-11.

Electric's tariff. PPL Electric was unable to produce evidence that Customer One satisfied either requirement.¹⁵⁵

The OCA presents a reasonable path forward to ensure that Customer One still has the opportunity to take service from PPL Electric, but PPL Electric must make further evidentiary showings before doing so would be reasonable. Where reliability benefits are averred to result from a proposed transmission line, it is appropriate for the Commission to consider if reliability harms would result, instead.¹⁵⁶ For these reasons, the OCA submits that PPL Electric's support for the LON is insufficient, and that PPL Electric has failed to meet its burden of proof to demonstrate that the increased reliability risk associated with approval of the LON is outweighed by the speculative, purported benefits. Therefore, the Commission should disapprove the LON as proposed.

3. Approval of Phase One will create potential NERC reliability violations and, therefore, reliability risks to existing PPL Electric customers.

PPL Electric witness Lookup testified that the interconnection and service of Customer One will create reliability concerns based on the construction of Phase One facilities, alone:

A second phase of the Project, which is the subject of a Full Siting Application, filed on April 6, 2026, at Docket No. A-2026-3061547, will be needed to address the Customer's future electrical needs and demands, as well as the needs and demands of future customers and PPL's system needs.

The projected load growth will create overloads on the Susquehanna-Tomhicken #1 and #2 230 kV Transmission Lines, which will require additional improvements to the 230 kV network in this area to continue to provide reliable service.

Specifically, the Susquehanna-Tomhicken #1 and #2 230 kV Transmission Lines become overloaded when the load increases by approximately 400 MW in the Hazleton area. The loss of one of the Susquehanna-Tomhicken 230 kV lines in a single contingency (P1) or multiple contingency with a fault plus stuck breaker (P4)

¹⁵⁵ Tr. 475:7-19; OCA Cross-Exh. 4 at 2.

¹⁵⁶ See *Transource*, 278 A.3d at 966 ("Because a finding of necessity may be found under Pennsylvania law if a project results in a decrease in prices, *Hess*, 107 A.3d at 260, we do not view it an abuse of discretion for the Commission to consider evidence of **increased** consumer prices and weigh the competing cost impacts of the IEC Project to determine the necessity of that project.") (emphasis in original).

category overloads the remaining in-service line. When the load addition in the Hazleton area approaches approximately 700 MW, the loss of both Susquehanna-Tomhicken #1 and #2 230 kV Transmission Lines for a multiple contingency with the common structure (P7) category results in voltage violations at both the Tomhicken Switchyard and the Harwood Substation.¹⁵⁷

Put simply, the 965 MW addition of Customer One is sufficient to require an additional set of transmission network upgrades which are the subject of a second proceeding, without other new load.¹⁵⁸

However, there is no record evidence to support whether and to what extent the Commission will approve the facilities proposed in Phase Two.¹⁵⁹ Because Customer One has an Electric Service Agreement (ESA)¹⁶⁰ for transmission withdrawal rights of up to 965 MW – and PPL Electric’s system will incur thermal overload and voltage violation contingency violations if the Customer’s load ramps to 400 MW and 700 MW, respectively – permitting Customer One’s interconnection without adequate and specific guardrails could negatively impact reliability for PPL Electric’s other customers.¹⁶¹ Therefore, unless and until PPL Electric can present evidence which indicates that all facilities necessary to serve Customer One’s contracted load amount will be in service, the LON should not be approved.

As described *supra*, PPL Electric has an obligation to provide safe, adequate, and reliable service to its customers.¹⁶² That service cannot be discriminatory, meaning that customers receive unreasonable or undue differences in the safety, adequacy, and/or reliability of their electric

¹⁵⁷ PPL Electric St. 1 at 4:7-5:2.

¹⁵⁸ OCA St. 2 at 11-12 (“No other contingency category produced violations requiring Phase 2 infrastructure — confirming that all Phase 2 need is attributable to this customer’s load addition.”).

¹⁵⁹ Tr. 461:14-18 (Phase Two is still ongoing).

¹⁶⁰ PPL Electric utilizes ESAs as a contract for retail electric distribution service with customers taking service at 69 kV or higher, meaning that the customer falls under PPL Electric’s Rate LP-5 or Rate LP-6. Tr. 437:-38:4. Rate LP-6 is specifically designed to include new, large load customers, including Customer One. PPL Electric St. 1-R at 11.

¹⁶¹ Tr. 455:10-14 (“Q. So the system after construction of phase one would only be able to accommodate a certain level of additional load from Customer Number 1. Is that right?” “A. Yes, that’s correct.”).

¹⁶² 66 Pa. C.S. §§ 1501, 2807(a).

service.¹⁶³ The Commission, under the Public Utility Code, is obligated to ensure “safe and reliable electric service to all consumers in the Commonwealth, including” conformity with the reliability standards required by NERC.¹⁶⁴

Customer One’s anticipated peak demand is sufficient to create NERC reliability violations. OCA witness Konidena testified: “this customer’s maximum demand of 965 MW alone exceeds both the 400 MW and 700 MW thresholds — meaning this customer’s load is independently sufficient to trigger both the P1/P4 [thermal] overloads and the P7 voltage violations that drive Phase 2, regardless of whether other queue customers also contribute.”¹⁶⁵ PPL Electric was aware of these potential reliability violations at the time that the Phase One Project was designed.¹⁶⁶ Both the 400 MW and 700 MW thresholds would be surpassed in the summer of 2028.¹⁶⁷ While P1, P4, and P7 are categories of contingency violations – meaning that they represent threats to transmission system reliability in the event of an equipment malfunction – PPL Electric’s system must be planned to handle such contingencies in the event they occur.¹⁶⁸

To better enable Commission review of these reliability challenges, the OCA provides a brief definition of (1) thermal overloads, and (2) voltage violations, including what causes them and what risks are associated with them. Both are violations of NERC reliability standards.¹⁶⁹ First, thermal overloads refer to the physical heating effect on conductors – the cables facilitating the

¹⁶³ 66 Pa. C.S. § 1502; *Columbia 2018* at *75; *see also* 66 Pa. C.S. § 2804(6) (“the commission shall require that a public utility that owns or operates jurisdictional transmission and distribution facilities shall provide transmission and distribution service to all retail electric customers in their service territory and to electric cooperative corporations and electric generation suppliers, affiliated or nonaffiliated, on rates, terms of access and conditions that are comparable to the utility’s own use of its system.”).

¹⁶⁴ 66 Pa. C.S. § 2804(1); *see also* 16 U.S.C. § 824o(i)(3) (preserving state authority to act on matters of reliability, except where such action would be inconsistent with a NERC reliability standard).

¹⁶⁵ OCA St. 2 at 63.

¹⁶⁶ OCA St. 2 at 84.

¹⁶⁷ Tr. 454.

¹⁶⁸ OCA St. 2 at 5 (“an N-1 contingency is the event; an N-1 reliability deficiency is the consequence when the system was not adequately planned to handle that event.”).

¹⁶⁹ Tr. 446, 743, 749-50.

flow of power – due to the electrical current flowing through the line causing the conductor to heat in excess of the temperature at which it is rated to operate.¹⁷⁰ Risks associated with thermal overloads include equipment failures, including overloaded equipment, and reliability relays tripping circuit breakers, cutting off the flow of power automatically between sections of PPL Electric’s system.¹⁷¹ When circuit breakers trip, power can be shifted to other transmission lines, creating the potential for additional overheated conditions.¹⁷² Overheated lines can sag, hanging lower than initially designed and potentially creating fire risks.¹⁷³

Second, the P7 voltage violations associated with the addition of 700 MW to the Susquehanna-Tomhicken #1 and #2 lines represent voltage change violations, meaning that the voltage levels at the proposed Tomhicken switchyard and existing Harwood substation would rapidly change following a contingency event, and the substation equipment could not safely regulate that change in voltage.¹⁷⁴ Voltage violations can worsen reliability by interfering with PPL Electric’s ability to operate its equipment along the transmission lines, or the lines could be out of service.¹⁷⁵ Due to current being re-routed to other lines in the event of a voltage violation, such violations carry a risk of cascading outages, where each line that is utilized to re-route current may also experience voltage violations and need to be isolated from the grid.¹⁷⁶

Phase Two is intended to resolve these NERC reliability violations.¹⁷⁷ However, there is no record evidence to support the conclusion that Phase Two will be approved, or that it will be approved as proposed by PPL Electric. As a result, if Customer One is permitted to fully ramp to

¹⁷⁰ OCA St. 2 at 8, n. 11.

¹⁷¹ Tr. 447-48.

¹⁷² Tr. 448.

¹⁷³ Tr. 448-51.

¹⁷⁴ OCA St. 2 at 70.

¹⁷⁵ Tr. 453.

¹⁷⁶ Tr. 453.

¹⁷⁷ Tr. 454.

its contracted amount of 965 MW, the customer's interconnection will worsen grid reliability and the Phase One LON should be disapproved.

To the extent that PPL Electric argues that its ESA with Customer One, or distribution tariff, permit it to prevent the customer from operating at 400 MW, 700 MW, or up to its full bargained-for load of 965 MW, record evidence indicates otherwise. Specifically, the OCA requested that PPL Electric identify specifically which provisions of its ESA with the customer and tariff would permit it to curtail the customer's service in the event its load exceeds the thresholds for NERC reliability violations.¹⁷⁸ PPL Electric indicated several provisions of the customer ESA may permit interruption of Customer One's load if it exceeds 400 MW or 700 MW: Sections 1, 9, 14, 25¹⁷⁹, and Schedule D.¹⁸⁰ PPL Electric also stated that Rule 5A of its retail electric distribution tariff would permit such curtailment because it "provides that customers cannot operate equipment in a way that damages the Company's system."¹⁸¹

However, these contractual and tariff provisions are not sufficiently specific to identify that Customer One can experience interruptions for operating its facilities within the bounds of its contractual peak demand, especially considering that the customer is not taking service under an interruptible rate.¹⁸² Section 1 and Schedule D of the ESA provide only that electric service is conditioned on completion of Phase One, as well as Phase Two; however, this averment conflicts with the phased nature of the Project, where "Phase 1 will serve the Customer's initial load" and "Phase 2 is needed to serve the Customer's projected load of 965 MW," which PPL Electric described as "separate needs."¹⁸³ If Customer One's service is conditioned on construction of *both*

¹⁷⁸ Tr. 444-46, 542-54; PPL Electric Hearing Exh. 3.

¹⁷⁹ Section 25 of the ESA provides only that PPL Electric's retail electric tariff distribution controls any conflicts between the ESA and the tariff. The OCA does not address Section 25 in detail in this Section.

¹⁸⁰ PPL Electric Hearing Exh. 3.

¹⁸¹ PPL Electric Hearing Exh. 3.

¹⁸² Tr. 478, 549.

¹⁸³ Compare PPL Electric Hearing Exh. 3 and Tr. 542-43, 550 with PPL Electric St. 1-R at 18.

Phase One and Phase Two facilities, then PPL Electric could have submitted the Overall Project as a single transmission line siting proceeding; however, it did not. Though PPL Electric witness Lookup claimed that Schedule D provides that Customer One cannot exceed 400 MW of load unless and until Phase Two is completed, such a reading expands far beyond the plain terms of the ESA.¹⁸⁴

Regarding Section 9 of the ESA, PPL Electric overstates the extent to which the ESA term assures the Company's ability to interrupt Customer One's service in the event that its load would exceed the 400 MW thermal violation threshold.¹⁸⁵ To the extent that the ESA between PPL Electric and Customer One is similar to the form ESA provided as PPL Electric Exhibit JBL-1R, Section 9 of the form ESA is limited to "maintenance, repair or replacement activities," not to reliability-related emergency outages.¹⁸⁶ According to PPL Electric, Section 9 merely provides that the customer must cooperate by following reliability and outage orders in accordance with PPL Electric's tariff.¹⁸⁷ However, it does not provide, specifically, that Customer One must curtail any demand in excess of 400 MW or that a reliability or outage order will be issued in response to an increase in load in excess of 400 MW.¹⁸⁸ Rather, PPL Electric's assertions rely on general terms and conditions without identifying the conditions under which PPL Electric can or should be certain that Customer One will create reliability risks.

PPL Electric's reliance on its tariff are also incomplete and, thereby, Section 14 of the ESA which purportedly requires Customer One to be subject to the terms and conditions of PPL

¹⁸⁴ Tr. 550.

¹⁸⁵ See PPL Electric Hearing Exh. 3.

¹⁸⁶ PPL Electric Exh. JBL-1R at 4. At hearings, Mr. Lookup stated specifically that outage and reliability orders were related specifically to updates to PPL Electric's system, consistent with the form ESA. Tr. 548-49. Based on the record evidence, therefore, it is reasonable to conclude that Section 9 of Customer One's ESA pertains to maintenance, repair, or replacement activities and not to reliability or outage orders associated with general system reliability.

¹⁸⁷ PPL Electric Hearing Exh. 3.

¹⁸⁸ PPL Electric Hearing Exh. 3; Tr. 544.

Electric's tariff.¹⁸⁹ Mr. Lookup was unable to identify a specific provision of PPL Electric's tariff that would require Customer One to disconnect from the grid or otherwise reduce its load if that load exceeded 400 MW; instead, Mr. Lookup merely pointed to the tariff's statements that PPL Electric must provide safe and reliable service.¹⁹⁰ Namely, under a generic "safe and reliable" requirement, it is troubling that a customer would have their load interrupted or curtailed prior to the initiation of a manual load shedding event (i.e., the customer would be interrupted without any other customers being interrupted¹⁹¹) when that customer is taking firm service.¹⁹²

Furthermore, according to PPL Electric, Tariff Rule 5A provides that customers cannot operate equipment in a way that damages the Company's system.¹⁹³ PPL Electric witness Lookup clarified that the customers' equipment, for purposes of Tariff Rule 5A, is limited to the customer-owned equipment at the point of interconnection with PPL Electric's system, not the customer facilities which exist beyond the point of interconnection.¹⁹⁴ When asked if Customer One could exceed 400 MW of load while operating its customer-owned substation "consistent with good utility practice,"¹⁹⁵ Mr. Lookup stated that they could.¹⁹⁶ In other words, so long as the customer maintains the facilities visible to PPL Electric at the point of interconnection in good working condition, then Rule 5A does not provide the authority that PPL Electric asserts it does.

¹⁸⁹ PPL Electric Hearing Exh. 3.

¹⁹⁰ Tr. 544:2-8 ("[Q.] Does PPL Electric's electric tariff require that a customer would have to manually switch to backup generation or otherwise disconnect from the grid if its load would exceed 400 megawatts?" "A. The tariff would be safe, reliable. So we would have to direct a order for permitted outage again. And in this particular, if you're referencing the 400 outages, yes, it would - it would have to disconnect them from the grid."), 545:6-9 ("[Q.] And can you tell me where in PPL Electric's tariff I would find that provision?" "A. The tariff would simply go back to a couple difference sections of reliable and safe.").

¹⁹¹ Tr. 550.

¹⁹² Tr. 544-45.

¹⁹³ PPL Electric Hearing Exh. 3.

¹⁹⁴ Tr. 551.

¹⁹⁵ See Tr. 494 (defining Good Utility Practice, as that term appears in PPL Electric Exh. JBL-1R as "safe and reliable power").

¹⁹⁶ Tr. 553-54.

In summary, while PPL Electric witness Lookup testified during cross examination that Customer One will be curtailed under identified reliability risk-creating conditions,¹⁹⁷ the record shows there is no evidence to corroborate this testimony. Therefore, PPL Electric's witness's bald assertions on the stand about the existence of interruptible service are not substantiated with other credible evidence of record to show how or when PPL Electric can or will subject Customer One to service interruptions for purposes of maintaining reliable service. For example, the record shows that Rate LP-6 provides a voluntary interruptible service option,¹⁹⁸ and despite the availability of a voluntary interruptible service option, Customer One has elected firm service, not interruptible service, and PPL Electric agreed to the same.¹⁹⁹ The absence of a demonstrated curtailment mechanism is particularly significant because the record establishes that the resulting overloads and voltage violations can cause system outages for other customers and even potentially cascading outages.²⁰⁰

Based on PPL Electric's assertions, PPL Electric intends to draw excessive authority from unspecific portions of its ESAs and tariffs, which do not adequately establish interruptible service as a term and condition of the customer's service. However, the Rate LP-6 tariff and other generic provisions of the tariff do not put Customer One or other customers on notice that PPL Electric intends to provide interruptible service to Customer One under certain conditions (i.e., when Customer One's demand exceeds 400 MW before Phase Two facilities are placed into service),²⁰¹

¹⁹⁷ See PPL Electric Hearing Exh. 3; *see also* Tr. 542:9-554:11.

¹⁹⁸ Tr. 478:4-7.

¹⁹⁹ Tr. 478:8-11, 549:13-550:9.

²⁰⁰ Tr. 448-53, 746-49.

²⁰¹ Tr. 549:20-25 ("But I mean, as directed based off of availability of resource adequacy, as discussed earlier, or safe and reliable power, there would still be an ability, right, to operate the system in a safe, reliable manner that would curtail a customer or customers, as you required.").

especially when Customer One has elected not to take interruptible service.²⁰² To be clear, PPL Electric was unable to identify any provision of its tariff or the ESA with Customer One that informed the customer to what level they must keep their load in order to ensure the uninterrupted operations of their facilities.

For purposes of ensuring that both PPL Electric and its customers are accountable during situations which require the exercise of load control procedures such as customer interruptions, including what customer behaviors are necessary to prevent the exercise of such procedures, PPL Electric's tariff and/or ESAs with customers must state the need for the same explicitly. In this proceeding, PPL Electric has failed to demonstrate, as applied to Customer One, that necessary procedural guardrails are in place and may be relied on based on the customer's actions behind the point of interconnection. As a result, the OCA submits that PPL Electric has failed to meet its burden of proof that approval of the Phase One facilities will maintain safe, adequate, and reliable service for PPL Electric's customers. The OCA respectfully requests that the LON be disapproved and that PPL Electric be directed to refile and provide evidence that it has implemented and agreed to specific contractual terms which inform Customer One of the limitations as to its service unless and until Phase Two of the Project is approved.

4. Phase One will harm current PPL Electric ratepayers by assigning costs inconsistent with federal, regional, and state policy initiatives.

PPL Electric indicated in the LON that the Phase One facilities will be assigned 64% to PPL Electric's transmission customers, or \$38.4 million, and 36% to Customer One, or \$21.5 million, for a total of \$59.9 million.²⁰³ Notably, if Phase Two of the Project is approved as

²⁰² Tr. 549 ("There's a voluntary interruptible rate versus firm transmission service. But I mean, as directed based off of availability of resource adequacy, as discussed earlier, or safe and reliable power, there would still be an ability, right, to operate the system in a safe, reliable manner that would curtail a customer or customers, as you required.").

²⁰³ OCA St. 2 at 91.

proposed, this amount would increase by \$118.5 million, assigned entirely to PPL Electric's transmission customers, for a total ratepayer exposure of \$156.9 million.²⁰⁴ The OCA does not assert that PPL Electric is claiming this amount as an addition to its transmission rate base or proposing a cost assignment for purposes of Commission review and approval. Rather, the OCA submits that the evidence in this proceeding is indicative of potential harm to PPL Electric's customers if the Company is permitted to construct the facilities as proposed, due to PPL Electric's assertions regarding the rate base claim and resulting assignment of costs.²⁰⁵ Such harms are an integral component of need and weigh in favor of disapproving the LON.²⁰⁶

Primarily, the OCA's concern is that PPL Electric lacks controls and procedures at the time of initiating retail electric distribution service to protect its existing customers. As described *supra*, PPL Electric must maintain service that does not unreasonably or unduly discriminate between new and existing customers.²⁰⁷ This includes maintaining reasonable tariff rules and procedures regarding the conditions under which PPL Electric will provide service to new customers.²⁰⁸

While transmission rates, including cost assignment and allocation between retail customers, are subject to the FERC's jurisdiction,²⁰⁹ the terms and conditions of retail service are

²⁰⁴ OCA St. 2 at 91.

²⁰⁵ *Cf. McCloskey v. Pa. PUC*, 195 A.3d 1055, 1069 (Pa. Cmwlth. 2018) (when approving a Section 1329 acquisition, the Commission must assess the impact on rates because the ultimate impact on rates is determined by approval or disapproval of the sale and subsequent inclusion of the Section 1329 rate base in rates, even though the weighing of such impact is a separate legal test from determining the rate base to be included).

²⁰⁶ *TrAILCo* at *47-48; *Transource 2021* at *57-58.

²⁰⁷ 66 Pa. C.S. § 1502.

²⁰⁸ 66 Pa. C.S. § 1501.

²⁰⁹ *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities, Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order 888, 75 FERC P61,080 (1996), Order at 31,783 *aff'd New York v. FERC*, 535 U.S. 1, 22-23 (2002) (affirming the FERC's extension of its jurisdiction over retail, unbundled, interstate transmissions); *Mansfield Mun. Elec. Dept. v. New England Power Co.*, 97 FERC P61,134, 61,613-14 (2001), *order on reh'g*, 98 FERC P61,115 (2002) (providing the test utilized by the FERC to determine whether facilities are network facilities for purposes of cost assignment); *see also* 16 U.S.C. § 824d(a) (providing the FERC with jurisdiction over the rates set for sales of electricity, including transmissions, in interstate commerce).

not.²¹⁰ In addition to determinations regarding the same from FERC, PPL Electric has obtained Commission approval to implement a tariffed rate class dedicated to new large load customers²¹¹ and the Commission has adopted a Large Load Model Tariff to provide overarching policy guidelines regarding what EDC large load tariff provisions should include as conditions of retail service.²¹² These retail distribution tariffs include matters which bear directly on EDCs' FERC-jurisdictional rate base and cost assignment provisions, including stranded cost protections and treatment of transmission network upgrade costs which the new large load customer caused the EDC to incur.²¹³ As a result, any argument that distribution tariff and contractual provisions which touch and concern matters of FERC-jurisdictional ratemaking preclude Commission action on such matters is unsupported by law and recent Commission orders.²¹⁴

This is why OCA witness Felder raised matters of federal, regional, and state policy regarding consumer protections that must be guaranteed in retail electric distribution tariffs and contracts for retail service: without Commission oversight and approval, retail distribution customers will go unprotected. To reiterate the policy determinations Dr. Felder identified:

- The Ratepayer Protection Pledge, which data center developers and utilities, including PPL Electric, signed and agreed that data centers will “pay for all new power delivery infrastructure upgrades to service their data centers.”²¹⁵

²¹⁰ *Compare Tri-State Generation and Transmission Ass’n*, 193 FERC P61,070, ¶¶ 45-52 (2025) (*Tri-State I*) and *Cmwlth. Ed. Co.*, 194 FERC P61,181 (2026) (Chang, Cmm’r, Concurring) (“So, the question then is how best to ensure that customers are, in fact, adequately protected against cost shifts. For our state colleagues, ensuring sufficient customer protection might mean requiring additional revenue contributions from end-use loads as part of their retail rate oversight.”) (*ComEd 2026*) with *Tri-State Generation and Transmission Ass’n*, 196 FERC P61,127, ¶¶ 65-68 (2026) (*Tri-State II*).

²¹¹ PPL Electric St. 1-R at 11.

²¹² *Interconnection and Tariffs for Large Load Customers*, Docket No. M-2025-3054271, Order (May 12, 2026) (*Model Tariff Order*).

²¹³ See PPL Electric St. 5-R at 45-46; *Model Tariff Order* at 41-43.

²¹⁴ *FERC v. Elec. Power Supply Ass’n*, 577 U.S. 260, 279-80 (2016) (citing *New York v. FERC*, 535 U.S. at 17; 16 U.S.C. § 824(b)) (“the Federal Power Act does not authorize the FERC to regulate retail sales of electricity “no matter how direct, or dramatic, [the limitation of its regulatory authority over retail sales’] impact on wholesale rates.””).

²¹⁵ OCA St. 1 at 10-11.

- The White House National Energy Dominance Council and Governors of PJM States Statement of Principles, which recognized the need to assign data center-initiated costs to data centers.²¹⁶
- The FERC, which initiated a potential rulemaking and show cause proceeding with PJM to ensure that customers enjoy affordable access to electricity.²¹⁷
- The PJM Board of Managers, which initiated two FERC filings to procure new capacity resources and establish a new interim resource adequacy service construct for new data center, large load customers, including assignment of such costs to those customers.²¹⁸
- The Governor of Pennsylvania, who issued an Executive Order directing his Special Counsel to engage with the Commission and advocate that new, large load customers do not shift costs to existing customers.²¹⁹
- The Commission, which issued its Large Load Model Tariff to mitigate against risk-shifting, including stranded cost risk through the adoption of a baseline set of retail electric tariff provisions governing the terms under which new, large load customers can take electric distribution service.²²⁰

In addition to these actions, Chairman DeFrank recently issued a Statement in another PPL Electric LON proceeding, stating that “more work is needed here at the Commission, in coordination with our regulated utilities, customers, and stakeholders, to craft policies that fairly allocate costs of large load interconnection in a way that encourages economic development while maintaining affordability and reliability.”²²¹ Furthermore, as described *supra*, since Dr. Felder submitted his Surrebuttal Testimony, Vice Chair Barrow moved to convene a technical conference specifically on the issue of cost allocation for the interconnection of new large loads.²²² Vice Chair

²¹⁶ OCA St. 1 at 11.

²¹⁷ OCA St. 1 at 11.

²¹⁸ OCA St. 1 at 13-14; OCA St. 1SR at 8-11.

²¹⁹ OCA St. 1 at 16; OCA St. 1SR at 6-8.

²²⁰ OCA St. 1 at 16-17; OCA St. 1SR at 5-6.

²²¹ OCA St. 1SR at 5-6 (*quoting Letter of Notification of PPL Utilities Corporation for Approval to Construct 138 kV Transmission Lines*, Docket No. A-2026-3062201, Statement of Chairman DeFrank (Aug. 6, 2026)).

²²² *Motion Directing Staff to Issue Tentative Order Pursuant to the Public Utility Commission’s Provisions at 52 Pa. Code Section 57.52 (Emergency load control and energy conservation by electric utilities) and Establish a Technical Conference On Large Computational Load Cost Allocation*, Item No. 3064961-CMR, Motion of Vice Chair Barrow (Sep. 10, 2026).

Barrow’s Motion specifically identified that “[t]ime is of the essence as costs for energy, capacity, distribution, *and transmission* are already increasing for ordinary retail customers, largely driven by new large computational load customers.”²²³ As a result, not only are these policy initiatives ongoing, but the Commission has recognized that it, and its EDCs, must take further actions in order to protect existing customers *before* further harm can be done to ratepayers.²²⁴

In this proceeding, OCA witness Konidena found that PPL Electric would assign portions of the Phase One facilities’ costs to its transmission rate base, even though such costs would not have been incurred but-for Customer One’s interconnection. Mr. Konidena summarized his findings by stating: “Under no scenario does an independent ratepayer benefit exist under Phase 1 alone.”²²⁵ PPL Electric has not presented evidence to rebut this statement because it has not performed an analysis as to the benefits provided to its transmission system, generally, after the addition of Customer One; namely, PPL Electric modeled network benefits without considering Customer One’s additional load.²²⁶

Specifically, Mr. Konidena reached the following conclusions regarding purported network benefits associated with the Phase One facilities, alone:

Under Phase 1 alone, the demonstrable network benefit to existing ratepayers is zero on three independent measures.

First, capacity and reliability. As discussed above, the new Susquehanna–Tomhicken and Tomhicken–Harwood segments were sized to ensure that, under an N-1 contingency, the surviving circuit on either segment — rated approximately 1,195 MVA normal — can still serve the customer’s 1,016 MVA peak demand. The existing Susquehanna–Harwood line could not have done so. This sizing was driven entirely by the customer’s peak load; it does not provide existing ratepayers with any incremental N-1 reliability margin beyond what is needed to serve this customer.

²²³ *Id.* at 2 (emphasis added).

²²⁴ OCA St. 1SR at 8.

²²⁵ OCA St. 2 at 52.

²²⁶ OCA St. 2 at 54-55.

Second, network flow. Without Phase 2 and without the customer, the Tomhicken Switchyard carries approximately 1,400 MVA of existing corridor flow — the same Susquehanna-Harwood load that was being served before the project, now rerouted through a new switching point. Rerouting creates no new value for existing ratepayers.

Third, congestion relief. The congestion PPL cited as a system condition — approximately \$35 million over 2021 and 2022 — was resolved by [Dynamic Line Ratings (DLR)] three years before this project was proposed. Phase 1 provides no incremental congestion relief beyond what DLR already achieved.²²⁷

Mr. Konidena’s conclusions indicate that the Phase One facilities are designed to provide Customer One with the benefit of interconnection, but are not designed to provide broader grid benefits: “every system function [PPL Electric] identifies is forward-looking and customer-driven. The switchyard serves future transmission paths, future customer interconnections, and future load growth. Not one of the functions PPL identifies provides a benefit to existing ratepayers today under Phase 1 alone.”²²⁸ For the reasons described *supra* in Section V.A.1, the Commission should assign little weight to the speculative reliability benefits which are contingent on approval of Phase Two.

By contract, “the customers who will benefit from these future transmission paths and new interconnections are the large load customers in PP’s interconnection queue — not the existing ratepayers being asked to pay \$38.4 million today.”²²⁹ Specifically, Customer One will benefit from “a dedicated 230 kV interconnection with four circuits designed specifically for this Customer’s load requirements...”²³⁰ However, “PPL did not quantify the reliability improvement the Customer receives, the value of N-1 redundancy for a load of this size, or how the reliability benefits compare to the cost of the infrastructure providing them.”²³¹ Ultimately, Mr. Konidena

²²⁷ OCA St. 2 at 57-58 (emphasis in original).

²²⁸ OCA St. 2 at 64.

²²⁹ OCA St. 2 at 64.

²³⁰ OCA St. 2 at 46.

²³¹ OCA St. 2 at 46.

concluded “that the Tomhicken Switchyard provides real and substantial reliability benefits to the Customer. A 965 MW load receiving a dedicated BAAH-configured 230 kV interconnection with four redundant circuits is receiving a high level of service reliability that the Customer specifically requested and that the switchyard was designed to provide.”²³²

Based on the comparison of network benefits to benefits accruing to PPL Electric’s ratepayers, generally, the OCA submits that the cost assignment submitted with the LON does not sufficiently protect PPL Electric’s existing customers consistent with the policy initiatives described *supra*.²³³ As Mr. Konidena testified, “[d]esign and cost allocation are, by PPL’s own description, the same inquiry: the engineering function of each facility determines its cost classification.”²³⁴ PPL Electric has failed to exert sufficient protections, procedures, and controls over the terms and conditions of retail distribution service to indicate customer benefits associated with approval of the LON.

While PPL Electric may claim that the addition of Customer One will exert downwards pressure on PPL Electric’s transmission rates, that same analysis demonstrates that PPL Electric’s FERC-jurisdictional transmission rate will actually increase, even if the cost allocation methodology provides small benefits to PPL Electric’s other customers.²³⁵ The Commission should examine the impact on transmission rates more critically than PPL Electric suggests. The inclusion of Customer One’s but-for costs – which, pursuant to, *inter alia*, Commission policy and the Ratepayer Protection Pledge, should be assigned 100% to Customer One – in PPL Electric’s

²³² OCA St. 2 at 47.

²³³ To reiterate, the OCA is not submitting argument that PPL Electric’s cost assignment is inconsistent with FERC transmission cost assignment policies or that PPL Electric must adjust its FERC transmission formula rates consistent with the findings of Mr. Konidena.

²³⁴ OCA St. 2SR at 9.

²³⁵ PPL Electric Exh. BLJ-3R (identifying bill savings of approximately \$4.68 per year for residential customers using 1,000 kWh of energy per year, and that the transmission rate will increase from \$110,450 per MW/year to \$110,861 per MW/year due to the additional rate base).

transmission rate base creates the potential for harm to customers. Namely, the network upgrades that PPL Electric would not have constructed but-for the interconnection and service of Customer One are not depreciated on an accelerated basis or otherwise removed from PPL Electric's transmission rate base at a pace consistent with Customer One's contract, unless Customer One defaults.²³⁶ Absent the adoption of a but-for cost assignment approach, there is no *guarantee* that PPL Electric's existing customers will be protected from stranded costs.²³⁷

Without stating that the Commission must act beyond the scope of its jurisdiction to determine which dollars can be assigned to Customer One or PPL Electric transmission customers, the OCA submits that PPL Electric failed to present sufficient evidence in this proceeding to demonstrate that the harm to customers will be adequately mitigated as a result of the interconnection of Customer One, specifically. The OCA does not recommend that the Commission make adjustments to PPL Electric's retail electric distribution tariff in this proceeding; rather, the Commission can appropriately deny the LON, consistent with the Commission's regulations, and require additional evidence of customer protection at such time as when PPL Electric resubmits its siting application for the Phase One Project.²³⁸ Such evidence could include modifications to Customer One's ESA, consistent with the Commission's Order in this proceeding.²³⁹ Unless and until PPL Electric submits evidence of sufficient customer protections, Customer One should not be permitted to interconnect.

²³⁶ See OCA St. 1 at 24; OCA St. 1SR at 20.

²³⁷ OCA St. 1SR at 16 ("Witness Taylor does not claim that ordinary ratepayers are protected from stranded costs under all circumstances.").

²³⁸ See 52 Pa. Code § 57.72(d)(5).

²³⁹ See 66 Pa. C.S. § 508 (providing the Commission with authority to vary, reform, or revise contracts between utilities and other entities regarding aspects of the contract which "embrace or concern a public right, benefit, privilege, duty, or franchise, or the grant thereof, or are otherwise affected or concerned with the public interest and the general well-being of this Commonwealth" to ensure that the contract's terms are just, reasonable, equitable, and consistent with the public interest).

5. The speculative benefits associated with approval of Phase One are insufficient to outweigh the foreseeable harms.

As described *supra*, when conducting its assessment of the need for a proposed transmission line, the Commission should analyze the purported benefits and harms of the construction of the line, inclusive of consideration of matters of federal, regional, and state policy.²⁴⁰ The Commission should not, as PPL Electric advocates, mechanically apply the question of need to examine no further than whether or not a customer requested interconnection facilities; such an application is inconsistent with instructions from the Commonwealth Court that the Commission must consider factors beyond “necessity from an engineering perspective.”²⁴¹

Consistent with the “need” analysis conducted in the Commission’s prior orders and Commonwealth Court precedent, the OCA recommends that the Commission assign little weight to the purported benefits of approval of the LON and assign significant weight to the likely or foreseeable harms of approval. Namely, the purported benefits of the LON are speculative: Customer One does not have approval to construct its facilities and Phase One provides no reliability benefits independent of Phase Two. By contrast, approval of Phase One, considering that Phase Two has not yet been approved, creates reliability risks associated with resource inadequacy, thermal overloads, and voltage violations in addition to cost risks because PPL Electric has not yet adopted a but-for cost assignment policy. Because the risk of harm to existing PPL Electric customers in the form of unreliable service, unduly discriminatory service, and lack of adequate retail cost protections, outweigh the speculative, purported benefits of approval of the LON, the OCA respectfully requests that the Commission disapprove the LON.

²⁴⁰ *TrAILCo* at *47-48; *Transource 2021* at *57-58; *Transource*, 278 A.3d at 966-67.

²⁴¹ *Pa. Power & Light Co.*, 696 A.2d at 250.

However, to the extent that the Commission determines that the LON should be approved, its approval should be conditioned on the following criteria, as supported by evidence of record:

- Regulatory and land-use approvals that Customer One may operate its facilities consistent with its ESA;
- Evidence that Customer One has (1) satisfied PJM’s “bring your own new capacity” requirement or (2) will take service subject to an interruptible rate, either PJM’s interim resource adequacy service construct or its functional equivalent;
- Commission review and approval of the Phase Two siting application, where such approval would prevent potential NERC violations associated with Customer One fulfilling the contracted-for load ramp;
- Modification of Customer One’s ESA and/or PPL Electric’s retail electric distribution tariff, evidencing that Customer One’s service can be interrupted if its load exceeds the amount necessary to cause NERC reliability violations; and
- Modification of Customer One’s retail electric distribution service is conditioned on Customer One paying for 100% of the but-for costs of its interconnection and service.

Absent a demonstration that these showings have been, PPL Electric has failed to satisfy its burden of proof that there is a need for the Phase One facilities, and the LON should be disapproved with instructions to resubmit the LON with evidence that these criteria have been satisfied.

B. PPL Electric has failed to demonstrate that the Phase One alone will not create an unreasonable risk of danger to the health and safety of the public.

Section 57.76(a)(2) requires the Commission to determine that a proposed high-voltage transmission line “will not create an unreasonable risk of danger to the health and safety of the public” before approving the line.²⁴² The Commission must also consider evidence regarding “[t]he safety of the proposed HV line” when evaluating an application for a high-voltage transmission line.²⁴³ Thus, the Commission’s consideration of safety is not limited to whether the

²⁴² 52 Pa. Code § 57.76(a)(2).

²⁴³ 52 Pa. Code § 57.75(e)(2).

physical construction of the proposed transmission facilities is safe; it necessarily includes consideration of whether the operation of those facilities, under the totality of the circumstances presented in the record, will create unreasonable risks to the public.

Here, the record demonstrates that approval of Phase One, without additional safeguards and without assurance that the facilities necessary to serve Customer One's contracted load will be constructed and placed in service, creates such a risk. As discussed in Section V.A, Customer One is the driver of the Phase One Project, and the LON filing predicts that Customer One's load will increase to approximately 965 MW by 2033.²⁴⁴ This impacts health and safety from both resource adequacy and reliability standards perspectives.

First, the addition of 240 MW, and eventually 965 MW, of new customer load will exacerbate reliability concerns associated with an existing capacity resource shortfall in the PJM region, as described *supra* in Section V.A.2. Put simply, as Dr. Felder testified, "[i]f the Commission does not act [in this proceeding], PPL will interconnect a large load that will exacerbate PJM's resource adequacy shortfalls, which, if it results in the need for load curtailment, may allow large loads with backup generation to continue to receive power from the grid while ordinary ratepayers are curtailed."²⁴⁵ At hearings, Dr. Felder further testified that adding a 965 MW load to PPL Electric's system "will increase the loss of load probability, loss of load expectation, unserved energy, etc."²⁴⁶ PPL Electric did not present evidence to rebut this fact, other than arguing that the Commission should not consider resource adequacy in this proceeding.²⁴⁷ During the current period of resource inadequacy, interconnecting Customer One – and, therefore, constructing the Phase One facilities needed to permit Customer One to draw on limited capacity

²⁴⁴ PPL Electric St. 1 at 3.

²⁴⁵ OCA St. 1SR at 18.

²⁴⁶ Tr. at 626: 20-22.

²⁴⁷ OCA St. 1SR at 14-15 (describing PPL Electric's testimony responsive to issues of resource adequacy).

resources in the PJM region – will have a negative impact on resource adequacy and creates an unreasonable risk of danger to the health and safety of the public.

Furthermore, the Company’s own testimony establishes that Customer One’s load will independently exceed the thresholds at which the existing transmission system experiences NERC reliability violations; specifically, PPL Electric’s Susquehanna-Tomhicken #1 and #2 230 kV Transmission Lines after Phase One’s construction has concluded become subject to thermal overloads when load in the Hazleton area increases by approximately 400 MW, while a load addition approaching 700 MW produces voltage violations at the Tomhicken Switchyard and Harwood Substation under the identified P7 contingency.²⁴⁸

OCA witness Rao Konidena stated that “this customer’s maximum demand of 965 MW alone exceeds both the 400 MW and 700 MW thresholds — meaning this customer’s load is independently sufficient to trigger both the P1/P4 [thermal] overloads and the P7 voltage violations that drive Phase 2” regardless of whether other customers contribute additional load.²⁴⁹ These 400 MW and 700 MW thresholds are expected to be surpassed in the summer of 2028.²⁵⁰ PPL Electric therefore knew when it designed Phase One that Customer One’s anticipated load would create these reliability violations, yet the facilities intended to address those violations remain the subject of a separate proceeding that has not yet been approved by the Commission.

These are not merely technical violations without consequences for the public. The record establishes that the identified thermal overloads and voltage violations can produce physical equipment consequences and interruptions of electric service.²⁵¹ As Mr. Konidena explained at

²⁴⁸ PPL Electric St. 1 at 4-5.

²⁴⁹ OCA St. 2 at 63.

²⁵⁰ Tr. 454.

²⁵¹ PPL Electric St. 1 at 4-5; Tr. 746-49.

hearing, increased power flows can produce thermal overloads which “heat up the line.”²⁵² Mr. Konidena identified the physical consequences of a sustained thermal overload. When a transmission line operates at an emergency rating for a sufficiently long period, “the line sags,” potentially falling onto “trees, branches, [or] other lines,” which “could lead to outages.”²⁵³

PPL Electric witness Lookup similarly agreed that an overloaded conductor can overheat, causing protective relays to trip circuit breakers and interrupt the flow of power.²⁵⁴ When power is shifted to other transmission lines following a breaker trip, those lines can become overheated as well.²⁵⁵ An overheated line may sag below its designed clearance and create a potential fire risk.²⁵⁶ Thus, the thermal overloads that Customer One’s load is independently sufficient to cause are not merely theoretical departures from an engineering standard. They can result in physical damage to transmission facilities and the interruption of electric service to existing customers if Phase One is approved alone.

The potential consequences of the P7 voltage violations are similarly significant. Mr. Konidena testified that voltage violations “could lead to . . . cascading” events and that, when a line goes down because of a voltage violation, the system must either introduce reactive power immediately or “cut the line.”²⁵⁷ PPL Electric witness Lookup agreed that a voltage violation can interfere with PPL Electric’s ability to operate equipment and can require lines to be taken out of service.²⁵⁸ Because current may then be rerouted to other lines, additional lines may experience voltage violations, creating the potential for cascading outages.²⁵⁹

²⁵² Tr. 746-47.

²⁵³ Tr. 748.

²⁵⁴ Tr. 447-48.

²⁵⁵ Tr. 448.

²⁵⁶ Tr. 448-51.

²⁵⁷ Tr. 749.

²⁵⁸ Tr. 453.

²⁵⁹ *Id.*

The significance of these risks is heightened by the fact that the contingencies at issue are events that PPL Electric must plan its system to withstand.²⁶⁰ P1, P4, and P7 are contingency categories representing equipment malfunctions or failures; the fact that a violation occurs only upon a contingency does not eliminate the reliability concern.²⁶¹ PPL Electric therefore cannot avoid the health-and-safety implications of the identified violations simply because the thermal overloads and voltage violations arise following a contingency. The purpose of transmission planning is to ensure that the system can safely withstand such foreseeable contingencies.

The problem presented here is that Phase One does not resolve these known risks. To the contrary, PPL Electric acknowledges that Phase Two is required to address Customer One's future electrical needs and the resulting overloads on the Susquehanna-Tomhicken #1 and #2 lines.²⁶² Yet, the Commission has not approved Phase Two, and the record contains no assurance that the facilities proposed in Phase Two will be approved or constructed as proposed. Consequently, approval of Phase One would authorize the initial step in serving a customer whose contracted load is independently sufficient to create known NERC reliability violations before the facilities intended to resolve those violations have received Commission approval.

PPL Electric also has not demonstrated that specific contractual or tariff protections will prevent those consequences. As discussed in Section V.A.3, the OCA requested that PPL Electric witness Lookup identify the specific provisions of Customer One's ESA and PPL Electric's tariff that would permit PPL Electric to curtail Customer One when its load reaches the 400 MW and

²⁶⁰ OCA St. 2 at 10, n. 18.

²⁶¹ PPL Electric St. 1 at 4, n. 1.

²⁶² *Id.* at 4-5.

700 MW thresholds.²⁶³ PPL Electric identified general provisions of the ESA and tariff but did not identify a specific provision requiring Customer One to reduce its load at either threshold.²⁶⁴

That showing is insufficient where the record identifies specific load levels at which the system will experience known reliability violations. Customer One is taking firm, rather than interruptible, service, and PPL Electric has not identified a provision of the ESA or tariff that clearly informs Customer One that its service may be interrupted before it reaches its contracted peak demand because its load would otherwise create a NERC violation.²⁶⁵ The absence of such specific guardrails is particularly concerning because PPL Electric's own evidence establishes that Customer One's load will eventually reach levels capable of causing thermal overloads and voltage violations.²⁶⁶

PPL Electric has failed to demonstrate that Phase One, as proposed, can provide safe and reliable service when Customer One's ultimate load is added to the system.²⁶⁷ Rather, PPL Electric's own witnesses have admitted that Customer One's planned load can cause reliability and safety issues as early as the summer of 2028.²⁶⁸ The existing record establishes that Customer One's contracted load is independently sufficient to produce thermal overload and voltage violations, and both the OCA's and PPL Electric's witnesses have explained that those violations can result in outages and cascading outages and, in the case of sustained thermal overloads, physical line sag and potential fire risks.²⁶⁹

²⁶³ Tr. 546-47.

²⁶⁴ PPL Electric Hearing Exh. 3.

²⁶⁵ Tr. 478.

²⁶⁶ PPL Electric St. 1 at 4-5.

²⁶⁷ *Id.*

²⁶⁸ Tr. 454.

²⁶⁹ Tr. 448-53, 746-49.

Section 57.76(a)(2) requires a determination that the proposed line “will not create an unreasonable risk of danger to the health and safety of the public.”²⁷⁰ Here, the evidence establishes a known pathway from Customer One’s load growth to resource inadequacy and to identified NERC violations and, thereby, to potentially serious consequences for the transmission system and the public.

For these reasons, PPL Electric has failed to demonstrate that approval of Phase One satisfies Section 57.76(a)(2).²⁷¹ The Company has not established that Customer One’s contracted load can be served safely and reliably, nor has it demonstrated that specific contractual or tariff safeguards will prevent Customer One from creating reliability risks for PPL Electric’s system. The OCA therefore respectfully requests that the Commission deny the LON. Alternatively, if the Commission determines that Phase One may be approved, approval should be conditioned on (1) a showing that Customer One will bring its own capacity or take service under an interruptible rate schedule, (2) Commission approval and construction of the Phase Two facilities necessary to address the identified NERC violations, and (3) specific contractual and tariff provisions establishing the circumstances under which Customer One’s load must be curtailed before its operation creates a NERC reliability violation.

C. PPL Electric has not met its burden of proof in demonstrating that the Phase One Project will have minimum adverse environmental impacts.

The Commission’s regulations provide the necessary findings that the Commission must make and the evidence that will be considered in deciding whether to approve the Phase One Project. Key among those areas are the potential environmental impacts, specifically that the Phase One Project complies “with applicable statutes and regulations providing for the protection of the

²⁷⁰ 52 Pa. Code § 57.76(a)(2)

²⁷¹ 52 Pa. Code § 57.76(a)(2).

natural resources of this Commonwealth”, and that “it will have minimum adverse environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives.”²⁷² In reaching these determinations, the Commission will consider the evidence of record that is relevant to potential environmental impacts of the Phase One Project.²⁷³

During the two Public Input Hearings held for this proceeding, witnesses offered sworn testimony relevant to the impacts on the use and enjoyment of their land, the Project’s negative effect on local wetlands, potential harm to endangered species and other wildlife, among other adverse effects.

In addition to its regulations, the Commission must be guided in its decision here by the Environmental Rights Amendment codified as Article 1, Section 27 of the Pennsylvania Constitution. The Environmental Rights Amendment protects the rights of Pennsylvanians to clean air, pure water, and the preservation of the environment, while also requiring the Commonwealth to conserve and maintain the public’s natural resources for the benefit of all Pennsylvanians.²⁷⁴

The record evidence in this matter, including the sworn testimony of witnesses at the public input hearings, indicates that there is significant and legitimate²⁷⁵ concern regarding the Phase One Project’s impact on the Commonwealth’s natural resources. Many of the public input hearing witnesses are landowners who would be directly impacted by the Phase One Project. A portion of those sworn testimonies are recounted in OCA witness Teti’s testimony:

Public input reflects a growing concern regarding the impact that the construction and maintenance of the Project will have on the local area. Many individuals testified that they are concerned about the devastation of the environment associated with the Project, especially if the customer that will be interconnecting

²⁷² 52 Pa. Code § 57.76(a)(3), (4).

²⁷³ 52 Pa. Code § 57.75(e)(1-3).

²⁷⁴ Pa. CONST. art. I, § 27. In considering the Environmental Rights Amendment to the matter at hand, the Commission must also recognize the mandates established by the Pennsylvania Supreme Court in *PEDF*, 161 A.3d 911.

²⁷⁵ PPL Electric St. 3-R at 6.

to the switchyard does not end up materializing. Across witnesses, there is a strong desire to ensure that the impact to the environment is minimized and only done if completely necessary. Witnesses specifically raised the following concerns:

- **Wetlands:** “[The Project site] is immediate proximity to nearly two dozen exceptional values wetlands as well and a series of large mine pools...And all of this [development] can - would lead us to conclude that this land will pose serious challenges to heavy industrialization and utility duct bank installation. Not only that, but it poses serious interruption and degradation of watershed lifecycles. All kinds of animals and plants that rely on that unique series of water. Therefore, further life cycles will all be severely impacted.” (Transcript, P. 181-82)
- **Endangered Species:** “[I]t has been identified by the U.S. Fish and Wildlife Service of the Department of the Interior that this project is within the range of three federally protected species of endangered bats.” (Transcript, P. 267)
- **Wildlife:** “Then the EMFs...electromagnetic field, it goes 250 feet...completely around each of these towers that these EMFs are projected off and they cause a variety of issues, cancers and nervous system issues and that kind of thing. That’s what they do to humans. I’m not sure what effect they might have on wildlife who also live around there and whose hearing is usually more acute than ours.” (Transcript, P. 267)

Witness Allan Dick requested that “The Commission ensure that any commitments relied upon in approving this application are not merely statements of intent, but the legally enforceable obligations that remain in place regardless of future ownership or financial circumstances.” (Transcript P. 89-90) Witness Angela Bahrt requested “The Commission require PPL to conduct proper environmental studies by an environmental consultant chosen by the Commission with input and approval from the petitioners to this case to ensure risks to nearby wetlands and protected species are mitigated.” (Transcript, P. 268).²⁷⁶

The preceding examples provided in Mr. Teti’s testimony are representative of the public’s concerns in this matter as to the environmental impacts on Pennsylvania’s natural resources should the Phase One Project be approved. Public Input Hearing witness Jeffrey Fasnacht, who owns the property that will abut the Phase One Project’s right-of-way, also provided compelling testimony on the Phase One Project’s impact to his property and him, personally.²⁷⁷

²⁷⁶ OCA St. 3 at 9-10.

²⁷⁷ Tr. 348-52.

The OCA respectfully submits that PPL Electric bears a heavy burden under the Commission's Regulations, the Environmental Rights Amendment and the Pennsylvania Supreme Court's decision in *PEDF* as to the approval of this Project. In accord with the weight of the public testimony, and the prevailing laws of Pennsylvania, that burden has not been met.

D. Availability of Reasonable Alternatives

The OCA is not addressing this issue. The OCA's lack of discussion should not be interpreted as acceptance of the Company's position.

VII. CONCLUSION

PPL Electric has failed to demonstrate that the proposed Phase One LON is necessary and proper for the accommodation, convenience, and safety of the public. The Phase One Project is principally driven by a single customer, the load of which is projected to approach approximately 950 MW by 2033, roughly the size of a very large power plant, at a time when PJM is already confronting increasing resource adequacy concerns. Yet, PPL Electric's own evidence establishes that Phase One, without further upgrades, will not safely and reliably accommodate Customer One's ultimate load and that additional facilities will be necessary to address resulting thermal overloads and voltage violations from Customer One's load, alone. Those facilities are not before the Commission in this proceeding and have not been reviewed or approved. PPL Electric likewise has not demonstrated that the claimed broader system benefits of Phase One will materialize or justify assigning approximately \$38.4 million, or 64%, of the Project's cost to existing Pennsylvania ratepayers. Nor has PPL Electric established how Customer One's firm load will be curtailed if it reaches levels that produce the identified reliability violations, despite evidence that such conditions can result in outages and potentially cascading outages. The Commission is therefore being asked to approve and require existing ratepayers to fund the Phase One Project created by one extraordinarily large customer, when the Phase One Project cannot ultimately serve

that customer's projected load safely and reliably without future, speculative transmission facilities that are not presently before the Commission.

For all of the reasons above, the Office of Consumer Advocate respectfully requests that the Commission deny PPL Electric's Letter of Notification. Alternatively, if the Commission determines that the Project may be approved, the OCA requests that approval be conditioned upon appropriate safeguards established by the evidence of record which address the unresolved reliability, health and safety, and ratepayer-protection concerns.

Respectfully submitted,

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Appendix A

OCA Proposed Findings of Facts

1. PPL Electric seeks approval from the Commission to site and construct the first of a two-phase project to meet the interconnection and service needs of a single new data center customer whose load is expected to increase in stages, ultimately reaching approximately 965 MW. PPL Electric St. 1 at 3.
2. The first phase of the Overall Project is the construction of the Tomhicken 230 kV Switchyard Project in Hazle Township, Luzerne County, Pennsylvania. LON at 1.
3. Phase One consists of (1) approximately 1.1 miles of new double-circuit 230 kV transmission taps connecting the existing Susquehanna-Harwood 230 kV Transmission Lines to a new Tomhicken 230 kV Switchyard and (2) two new 0.1-mile 230 kV transmission lines connecting the Switchyard to a new customer-owned 230-34 kV substation. LON at 1-2.
4. This Project may contribute to increased energy, ancillary services, and capacity costs, as well as increased capacity scarcity, that would harm Pennsylvania's retail electricity consumers. OCA St. 1 at 8.
5. PPL Electric proposes to interconnect Customer One to PPL Electric's distribution system subject to the terms and conditions of Rate LP-6 of PPL Electric's Tariff. PPL Electric St. 1-R at 11.
6. Given that the existing transmission system cannot reliably serve Customer One's electricity demand of 965 MW, PPL Electric proposes to construct the Overall Project, consisting of Phases One and Two, to reliably serve Customer One. PPL Electric St. 1 at 4.
7. Customer One's demand will increase in stages to exceed 700 MW in the summer of 2028 and to a maximum contract peak load of approximately 965 MW by 2033. Tr. 454:10-15; PPL Electric St. 1 at 3.
8. Customer demand approaching 1,000 MW is roughly the size of one very large power plant. OCA St. 1 at 7.
9. A purported benefit of Phase One is the facilitation of the interconnection of and service to a portion of Customer One's overall demand (up to 400 MW out of the total 965 MW). PPL Electric St. 1 at 4; PPL Electric St. 1-R at 27. However, this benefit is speculative given that Customer One's facilities have not received necessary local land use approvals. Zola Cross Exh. 2; Tr. 484:16-85:5.
10. A purported benefit of Phase One is the facilitation of the interconnection of future customers. PPL Electric St. 1 at 5:6. However, this benefit is speculative because no customers have executed contracts for service to interconnect to the Tomhicken Switchyard. Tr. 437-38.

11. A purported benefit of Phase One is the addition of an additional switchyard to PPL Electric's 230 kV network. PPL Electric St. 1-R at 27. However, this benefit is contingent upon Customer One's load materializing as anticipated, which is speculative given that Customer One has not received necessary local land use approvals. Zola Cross Exh. 2; Tr. 484:16-85:5.
12. PPL Electric projects that interconnection of Customer One, based on the terms and conditions of Rate LP-6, an initial load of 12 MW, and the inclusion of the cost of the Phase One facilities in PPL Electric's transmission rate base, may produce up to \$4.68 in annual savings for a residential customer using 1,000 kWh per year. PPL Electric Exh. BLJ-3R.
13. The sole purpose of the Phase One Project is to interconnect and serve Customer One's peak-load demand and that, absent that interconnection request, no pre-existing reliability need existed that would otherwise require the Phase One Project. OCA St. 2 at 9.
14. Other ratepayers will pay the costs of Phase One in transmission rates because PPL Electric plans to allocate approximately \$38.4 million, or 64%, of the Phase One Project's total \$59.9 million cost to existing ratepayers, even though the Project was designed principally around the interconnection requirements of Customer One, a single data center customer. LON ¶ 39.
15. PPL Electric did not submit testimony that the interconnection of Customer One will facilitate and promote economic development in the region. LON ¶ 11.
16. PPL Electric did not perform a forward-looking quantitative analysis demonstrating that the claimed benefits of the Phase One facilities will materialize. OCA St. 2 at 100.
17. PPL Electric claimed that Phase One is beneficial to PPL Electric's existing ratepayers because it may produce reliability benefits by creating another path for power to travel south from the Susquehanna 230 Switchyard which may increase operational flexibility, improve the Company's ability to take line outages in the area, and improve overall 230 kV system reliability. LON ¶¶ 11, 13. However, this purported benefit is speculative because Phase One, standing alone, is insufficient to safely and reliably serve Customer One's load above 400 MW and no tariff mechanism currently ensures that Customer One's usage will be curtailed should its demand exceed the threshold where reliability violations will occur. PPL Electric St. 1 at 4.
18. Customer One's load will independently reach a level – at 400 MW – that will create identified NERC reliability violations on the existing transmission system. Tr. 443:15-21, 446:20-25.
19. PPL Electric recognizes that additional transmission facilities, referred to as Phase Two, and/or mandatory interruptible service are necessary to address these future system conditions. Tr. 443:15-444:14, 548:16-550:9.
20. Phase Two has not been approved by the Commission. Tr. 461:14-18.

21. Neither PPL Electric's tariff nor the contract between PPL Electric and Customer One based in that tariff, provide for mandatory interruptible service. Tr. 478:4-11.
22. Phase One alone will not accommodate Customer One's full demand without producing reliability violations, specifically thermal overloads at 400 MW or voltage violations at 700 MW. PPL Electric St. 1 at 4-5.
23. Thermal overloads are a category of NERC reliability standard violations that occur when too much current flows through a transmission line, causing it to heat beyond its thermal rating. Tr. 447:1-5.
24. Thermal overloads can cause line or other types of asset failures, power shifting to other lines resulting in other assets being overheated, or line sagging and associated fire risks. Tr. 447:6-451:18, 747:25-748:23.
25. Voltage violations are also a category of NERC reliability standard violations when a transmission line operates at a voltage, or responds to a sudden change in voltage, beyond its operating threshold. Tr. 749:22-750:12.
26. Voltage violations can also cause cascading outages, loss of transmission lines, or other adverse effects on the reliability of the transmission system. Tr. 452:12-453:15, 748:25-749:20.
27. If only the Phase One facilities are constructed, then PPL Electric's existing system would be unable to serve Customer One's full load of 965 MW. Tr. 454:17-22.
28. To mitigate or prevent thermal overloads and voltage violations from occurring, Phase Two facilities are necessary to resolve those conditions and mandatory interruptible service is necessary to manage those conditions. PPL Electric St. 1 at 4-5; Tr. 548:16-550:9.
29. Customer One's service will not be curtailed if its demand or consumption reaches levels that produce the identified thermal overloads and voltage violations. Tr. 551:1-554:11.
30. There is no evidence that Customer One will be curtailed when thermal overloads or voltage violations occur as a result of its load additions. PPL Electric Hearing Exh. 3; Tr. 542:9-554:11.
31. Rate LP-6 provides a voluntary interruptible service option, and despite the availability of a voluntary interruptible service option, Customer One has elected firm service, not interruptible service, and PPL Electric agreed to the same. Tr. 478:4-11, 549:13-550:9.
32. The absence of a demonstrated curtailment mechanism is particularly significant because the resulting overloads and voltage violations from Customer One's interconnection and service can cause system outages for other customers and even potentially cascading outages. Tr. 448-53, 746-49.
33. PJM has acknowledged that its system is experiencing increasing resource adequacy concerns, with the 2027/2028 Base Residual Auction clearing 5.6% below the amount of

capacity resources that PJM intended to procure in order to preserve its resource adequacy planning standard. OCA St. 1 at 13; Tr. 626-27, 631-32.

34. PJM anticipates that this resource adequacy shortage will continue into the future, one of the inciting factors for its proposed Reliability Backstop Procurement. OCA St. 1SR at 8-10.
35. The Synapse resource adequacy reported conducted on behalf of the Commission indicates that the resource adequacy crisis is worsening in the coming years, increasing the number of load loss events to nearly six times the current resource adequacy planning criteria. Tr. 626:23-627:8.
36. PPL Electric has conducted no analysis of the impact of Customer One's incremental load on regional resource adequacy, has not verified that Customer One has secured electric supply or that its electricity supplier can and will deliver sufficient supply to the PPL Electric system to meet the suppliers' obligations to all its customers, and as a matter of practice does not verify additional customers' impact on resource adequacy. Tr. 475:20-477:23; OCA Cross Exh. 4 at 2.
37. If Phase Two of the Project is approved as proposed, the costs added to PPL's transmission rate base would increase by \$118.5 million, assigned entirely to PPL Electric's transmission customers, for a total ratepayer exposure of \$156.9 million. OCA St. 2 at 91.
38. PPL Electric did not state that 100% of the but-for costs of Customer One's interconnection would be directly assigned to Customer One but, instead, only the costs for facilities that have no degree of integration with PPL Electric's transmission network would be directly assigned. OCA St. 1 at 21.
39. Absent a 100% but-for cost assignment, existing customers are not completely protected from stranded costs if Customer One's load does not materialize. OCA St. 1SR at 16.
40. A public policy consensus exists that says that data centers should be added to electricity systems in a manner that ensures the prevention of cost shifting and service reliability degradation for existing ratepayers. OCA St. 1 at 6-25; OCA St. 1SR at 5-15, 17-20.
41. The Ratepayer Protection Pledge, White House National Energy Dominance Council and Governors of PJM States Statement of Principles, FERC, NERC, PJM Board of Managers, Governor of Pennsylvania, and the Commission have all recognized that the interconnection of new, large load data center customers can create reliability- and cost-related risks for existing customers and that these risks and costs should be placed onto data centers causing the risks and costs, and not shifted to other ratepayers. OCA St. 1 at 10-11, 13-14, 16-17; OCA St. 1SR at 3, 5-11.
42. Customer One is the need driver for this LON but does not yet have the requisite zoning and land use approvals to construct its end use facilities. PPL Electric St. 1 at 5:8; Zola Cross Exh. 2; Tr. 484:16-85:5.

43. If Customer One does not interconnect, the need driver for this project disappears, and the Tomhicken Switchyard serves no demonstrated independent system reliability purpose. OCA St. 2 at 62.
44. Authorizing construction of Phase One before Customer One's ability to interconnect is resolved would expose Pennsylvania ratepayers to \$38.4 million in costs for infrastructure that may never serve its intended purpose. OCA St. 2 at 62.
45. PPL Electric has not executed a contract with any other customer to directly interconnect to the Phase One facilities. Tr. 437-38.
46. PPL Electric was not planning, nor did PJM plan, any upgrades for the Susquehanna-Harwood #1 or #2 lines prior to Customer One's interconnection request. Tr. 461; OCA St. 2 at 12.
47. Neither of the Susquehanna-Harwood #1 or #2 lines were heavily loaded to the point where the lines created reliability violations in recent years. OCA St. 2 at 9, 20.
48. The Susquehanna-Harwood #1 and #2 lines previously experienced some congestion, but the congestion has been alleviated since PPL Electric installed Dynamic Line Ratings (DLR) over three years ago. OCA St. 2 at 9, 34.
49. The Phase One facilities do not provide existing ratepayers with any incremental N-1 reliability margin beyond what is needed to serve this customer. OCA St. 1 at 58.
50. The spacing of and number of bays in the proposed Tomhicken Switchyard are directly the result of accommodating the future Phase Two facilities, if approved. OCA St. 2SR at 22; Tr. 458.
51. The proposed Tomhicken Switchyard is specifically designed to have line termination points for Phase Two. OCA St. 2SR at 21.
52. Phase One's ability to facilitate service to additional 230 kV customers through providing additional pathways requires Phase Two's construction in order to provide those pathways. PPL Electric St. 1-R at 27.
53. Absent the construction of Phase Two, or the addition of customer interconnections, the Tomhicken Switchyard provides no marginal benefit to PPL Electric's transmission system than any other hypothetical 230 kV switchyard that splits an existing 230 kV double-circuit corridor. PPL Electric St. 1-R at 27; PPL Electric St. 1 at 4-5.
54. Reliability risks associated with resource inadequacy on the transmission system include equipment overloading, conductor failure, and equipment failures. Tr. 471:13-72:10.
55. In order to preserve the integrity of the transmission system, PPL Electric resorts to implementing its emergency procedures, which include instituting rolling blackouts throughout its transmission and distribution systems. Tr. 472:12-73:1.

56. If large loads are added to the electric power system without sufficient new supply to serve them or without meaningful policies to curtail their electricity consumption during times of supply shortages, then the reliability, specifically the resource adequacy, of the system will be degraded. Degradation could result in mandatory load shedding of ordinary ratepayers, such as residential customers. OCA St. 1 at 8.
57. As more load is added to PJM that is not sufficiently supplied or curtailable, the frequency, magnitude, and duration of potential mandatory load-shedding events increase. OCA St. 1 at 8.
58. PPL Electric does not request documentation from its customers regarding their source of generation supply, or if they will be taking default service. Tr. 476:18-23; OCA St. 1 at 17; OCA Cross-Exh. 4 at 2.
59. PPL Electric does not verify if their customers' choice of supply is new or would qualify under bring your own capacity requirements. Tr. 475:8-12; OCA St. 1 at 17; OCA Cross-Exh. 4 at 2.
60. The current period of resource inadequacy can be attributed to the growth in large load, data center customers. OCA St. 1, n. 29.
61. Data center developers and utilities, including PPL Electric, signed the Ratepayer Protection Pledge, promising to procure new capacity resources to prevent resource adequacy shortfalls. OCA St. 1 at 10-11; OCA St. 1SR at 3.
62. The White House National Energy Dominance Council and Governors of PJM States Statement of Principles recognized the need to mitigate against resource adequacy risk. OCA St. 1 at 11.
63. The FERC initiated a potential rulemaking and show cause proceeding with PJM to ensure reliable service. OCA St. 1 at 11.
64. NERC referred to resource adequacy-related reliability risk, including in the PJM region, as a five-alarm fire. OCA St. 1 at 12.
65. The PJM Board of Managers initiated two FERC filings to procure new capacity resources and establish a new interim resource adequacy service construct for new data center, large load customers. OCA St. 1 at 13-14; OCA St. 1SR at 8-11.
66. The Governor of Pennsylvania recommended pursuing an all-encompassing energy strategy to mitigate capacity shortfalls, including issuance of an Executive Order to protect Pennsylvania consumers. OCA St. 1 at 16; OCA St. 1SR at 6-8.
67. The Commission issued its Large Load Model Tariff to mitigate against risk-shifting, recognizing that additional work needs to be done to ensure reliable service. OCA St. 1 at 16-17; OCA St. 1SR at 5-6.

68. Vice Chair Barrow moved for further Commission action on EDC-level implementation of these overarching state and federal policy objectives, including incorporating a pre-emergency provision that implements curtailment protocols in EDCs' tariffs, and the Motion passed unanimously. *Motion Directing Staff to Issue Tentative Order Pursuant to the Public Utility Commission's Provisions at 52 Pa. Code Section 57.52 (Emergency load control and energy conservation by electric utilities) and Establish a Technical Conference On Large Computational Load Cost Allocation*, Item No. 3064961-CMR, Motion of Vice Chair Barrow at 2 (Sep. 10, 2026).
69. Vice Chair Barrow's Motion specifically identified that "[t]ime is of the essence as costs for energy, capacity, distribution, and transmission are already increasing for ordinary retail customers, largely driven by new large computational load customers." *Motion Directing Staff to Issue Tentative Order Pursuant to the Public Utility Commission's Provisions at 52 Pa. Code Section 57.52 (Emergency load control and energy conservation by electric utilities) and Establish a Technical Conference On Large Computational Load Cost Allocation*, Item No. 3064961-CMR, Motion of Vice Chair Barrow at 2 (Sep. 10, 2026).
70. The 965 MW addition of Customer One's new load during the current period of resource inadequacy creates reliability risks for PPL Electric's existing customers. OCA St. 1 at 7, 17.
71. PPL Electric failed to produce evidence of *any* resource adequacy assurances from Customer One. OCA St. 1 at 17.
72. The projected load growth will create overloads on the Susquehanna-Tomhicken #1 and #2 230 kV Transmission Lines, which will require additional improvements to the 230 kV network in this area to continue to provide reliable service. PPL Electric St. 1 at 4-5.
73. The loss of one of the Susquehanna-Tomhicken 230 kV lines in a single contingency (P1) or multiple contingency with a fault plus stuck breaker (P4) category overloads the remaining in-service line. PPL Electric St. 1 at 4-5.
74. When the load addition in the Hazleton area approaches approximately 700 MW, the loss of both Susquehanna-Tomhicken #1 and #2 230 kV Transmission Lines for a multiple contingency with the common structure (P7) category results in voltage violations at both the Tomhicken Switchyard and the Harwood Substation. PPL Electric St. 1 at 4-5.
75. The 965 MW addition of Customer One is sufficient, alone, to require an additional set of transmission network upgrades which are the subject of a second proceeding. OCA St. 2 at 11-12.
76. Because Customer One has an Electric Service Agreement (ESA) for transmission withdrawal rights of up to 965 MW – and PPL Electric's system will incur thermal overload and voltage violation contingency violations if the Customer's load ramps to 400 MW and 700 MW, respectively – permitting Customer One's interconnection without adequate and specific guardrails could negatively impact reliability for PPL Electric's other customers. Tr. 437:-38:4, 455:10-14; PPL Electric St. 1-R at 11.

77. Customer One's maximum demand of 965 MW alone exceeds both the 400 MW and 700 MW thresholds — meaning this customer's load is independently sufficient to trigger both the P1/P4 thermal overloads and the P7 voltage violations that drive Phase Two, regardless of whether other customers also contribute. OCA St. 2 at 63.
78. PPL Electric was aware of potential reliability violations at the time that the Phase One facilities were designed. OCA St. 2 at 84.
79. While P1, P4, and P7 are categories of contingency violations – meaning that they represent threats to transmission system reliability in the event of an equipment malfunction – PPL Electric's system must be planned to handle such contingencies in the event they occur. OCA St. 2 at 5.
80. An N-1 contingency is the event; an N-1 reliability deficiency is the consequence when the system was not adequately planned to handle that event. OCA St. 2 at 5.
81. When circuit breakers trip, power can be shifted to other transmission lines, creating the potential for additional overheated conditions. Tr. 448.
82. The P7 voltage violations associated with the addition of 700 MW to the Susquehanna-Tomhicken #1 and #2 lines represent voltage change violations, meaning that the voltage levels at the proposed Tomhicken switchyard and existing Harwood substation would rapidly change following a contingency event, and the substation equipment could not safely regulate that change in voltage. OCA St. 2 at 70.
83. Voltage violations can worsen reliability by interfering with PPL Electric's ability to operate its equipment along the lines, or the lines could be out of service. Tr. 453.
84. When the OCA requested that PPL Electric identify specifically which provisions of its ESA with the customer and tariff would permit it to curtail the customer's service in the event its load exceeds the thresholds for NERC reliability violations, PPL Electric indicated several provisions of the customer ESA may permit interruption of Customer One's load if it exceeds 400 MW or 700 MW – Sections 1, 9, 14, 25, and Schedule D – and stated that Rule 5A of its retail electric distribution tariff would permit such curtailment because it provides that customers cannot operate equipment in a way that damages the Company's system. Tr. 444-46, 542-54; PPL Electric Hearing Exh. 3.
85. Section 1 and Schedule D of the ESA provide only that electric service is conditioned on completion of Phase One, as well as Phase Two. PPL Electric Hearing Exh. 3; Tr. 542-43, 550.
86. To the extent that the ESA between PPL Electric and Customer One is similar to the form ESA provided as PPL Electric Exhibit JBL-1R, Section 9 of the form ESA is limited to maintenance, repair or replacement activities, not to reliability-related emergency outages. PPL Electric Exh. JBL-1R at 4.
87. Section 9 of the ESA provides that the customer must cooperate by following reliability and outage orders in accordance with PPL Electric's tariff, however, it does not provide,

specifically, that Customer One must curtail any demand in excess of 400 MW or that a reliability or outage order will be issued in response to an increase in load in excess of 400 MW. PPL Electric Hearing Exh. 3; Tr. 544.

88. PPL witness Lookup could not identify a specific provision of PPL Electric's tariff that would require Customer One to disconnect from the grid or otherwise reduce its load if that load exceeded 400 MWe. Tr. 544:2-8, 545:6-9.
89. Tariff Rule 5A provides that customers cannot operate equipment in a way that damages the Company's system, but the customers' equipment is limited to the customer-owned equipment at the point of interconnection with PPL Electric's system, not the customer facilities which exist beyond the point of interconnection. PPL Electric Hearing Exh. 3; Tr. 551.
90. PPL Electric has obtained Commission approval to implement a tariffed rate class dedicated to new large load customers. PPL Electric St. 1-R at 11.
91. Chairman DeFrank issued a Statement in another PPL Electric LON proceeding, stating that "more work is needed here at the Commission, in coordination with our regulated utilities, customers, and stakeholders, to craft policies that fairly allocate costs of large load interconnection in a way that encourages economic development while maintaining affordability and reliability." OCA St. 1SR at 5-6.
92. PPL Electric has not performed an analysis as to the benefits provided to its transmission system, generally, after the addition of Customer One, and PPL Electric modeled network benefits without considering Customer One's additional load. OCA St. 2 at 54-55.
93. The new Susquehanna-Tomhicken and Tomhicken-Harwood segments were sized to ensure that, under an N-1 contingency, the surviving circuit on either segment — rated approximately 1,195 MVA normal — can still serve the customer's 1,016 MVA peak demand, and the existing Susquehanna-Harwood line could not have done so. OCA St. 2 at 57-58.
94. The sizing of the Susquehanna-Tomhicken and Tomhicken-Harwood segments was driven entirely by the customer's peak load; it does not provide existing ratepayers with any incremental N-1 reliability margin beyond what is needed to serve this customer. OCA St. 2 at 57-58.
95. Without Phase Two and without Customer One, the Tomhicken Switchyard carries approximately 1,400 MVA of existing corridor flow — the same Susquehanna-Harwood load that was being served before the project, now rerouted through a new switching point. OCA St. 2 at 57-58.
96. Rerouting a 230 kV transmission line creates no new value for existing ratepayers. OCA St. 2 at 57-58.

97. The congestion PPL cited as a system condition — approximately \$35 million over 2021 and 2022 — was resolved by Dynamic Line Ratings (DLR) three years before this project was proposed. OCA St. 2 at 57-58.
98. Phase One provides no incremental congestion relief beyond what DLR already achieved. OCA St. 2 at 57-58.
99. Customer One will benefit from a dedicated 230 kV interconnection with four circuits designed specifically for this Customer's load requirements. OCA St. 2 at 46.
100. PPL Electric did not quantify the reliability improvement the Customer receives, the value of N-1 redundancy for a load of this size, or how the reliability benefits compare to the cost of the infrastructure providing them. OCA St. 2 at 46.
101. Absent the adoption of a but-for cost assignment approach, there is no guarantee that PPL Electric's existing customers will be protected from stranded costs. OCA St. 1SR at 16.
102. If Phase One is approved as filed, PPL Electric will interconnect a large load that will exacerbate PJM's resource adequacy shortfalls, which, if it results in the need for load curtailment, may allow large loads with backup generation to continue to receive power from the grid while ordinary ratepayers are curtailed. OCA St. 1SR at 18.
103. The identified thermal overloads and voltage violations can produce physical equipment consequences and interruptions of electric service. PPL Electric St. 1 at 4-5; Tr. 746-49.
104. Witnesses at the public input hearings raised significant and legitimate concern regarding the Phase One Project's impact on the Commonwealth's natural resources. PPL Electric St. 3-R at 6.
105. Many individuals testified at the Public Input Hearings that they are concerned about the devastation of the environment associated with the Project, especially if the customer that will be interconnecting to the switchyard does not end up materializing. OCA St. 3 at 9-10.
106. Public Input Hearing witness Jeffrey Fasnacht, who owns the property that will abut the Phase One Project's right-of-way, also provided compelling testimony on the Phase One Project's impact to his property and him, personally. Tr. 348-52.

Appendix B

OCA Proposed Conclusions of Law

1. As the proponent of an order approving the LON, the Company has the burden of proof. 66 Pa. C.S. § 332.
2. The Applicant must demonstrate that the Project is necessary to maintain adequate, efficient, safe, and reasonable service and facilities and meets the requirements of the Commission's regulations. 66 Pa. C.S. §§ 332(a), 1501; 52 Pa. Code §§ 57.71 et seq.
3. The party with the "burden of proof" has a duty to establish material facts by a preponderance of the evidence. *Se-Ling Hosiery, Inc. v. Margulies*, 70 A.2d 854, 857 (Pa. 1950).
4. The "preponderance of the evidence" means that one party has presented evidence that is more convincing than the evidence presented by the other party. *Se-Ling Hosiery, Inc. v. Margulies*, 70 A.2d 854, 856 (Pa. 1950).
5. Pursuant to the Commission's authority under 66 Pa. C.S. Section 1501 and the Environmental Rights Amendment, the Commission promulgated regulations for the siting and construction of high-voltage transmission lines codified at Chapter 57, Subchapter G, of Title 52 of the Pennsylvania Code. 52 Pa. Code §§ 57.71-57.77.
6. The Commission's Regulations define a high-voltage line as "an overhead electric supply line with a design voltage greater than 100,000 volts" or 100 kilovolts (kV). 52 Pa. Code § 57.1.
7. Section 57.72 of the Commission's regulations sets forth the necessary information that must be produced at the time of submission. 52 Pa. Code § 57.72.
8. A Letter of Notification may be filed with the Commission in Lieu of the application process when an HV line which is proposed to be located entirely within applicant's existing transmission line right-of-way and the property of the sole customer to be served by the line, so long as the size, character, design or configuration of the proposed HV line does not substantially alter the right-of-way and when an HV line has a proposed route of 2 miles or less. 52 Pa. Code § 57.72(d)(1)(iii) and (vi).
9. The Commission requests that an Applicant include information concerning route evaluation and siting criteria, as well as health and safety considerations when submitting an application for approval. 52 Pa. Code §§ 69.3101 – 69.3107.
10. Section 57.76 requires that the following criteria be met before the Commission can approve a high-voltage transmission line: (1) that there is a need for it; (2) that it will not create an unreasonable risk of danger to the health and safety of the public; (3) that it is in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth; (4) that it will have minimum adverse

environmental impact, considering the electric power needs of the public, the state of available technology and the available alternatives. 52 Pa. Code § 57.76(a).

11. In light of the Commission's obligations under the Environmental Rights Amendment in Pennsylvania's Constitution, PPL Electric has a heavy burden to meet each of the statutory and regulatory requirements for a transmission siting project that infringes upon the environmental rights of Pennsylvanians. *Pennsylvania Environmental Defense Foundation v. Commonwealth of Pennsylvania, et al.*, 161 A.3d 911, 930 (Pa. 2017).
12. The Commission and Commonwealth Court have historically interpreted the need criterion in transmission line proceedings broadly. *Transource Pa., LLC v. Pa. PUC*, 278 A.3d 942, 966 (Pa. Cmwlth. 2022) (citing *Hess v. Pa. PUC*, 107 A.3d 246, 260 (Pa. Cmwlth. 2014)).
13. The potential negative and practical impact on the citizens and consumers of Pennsylvania is properly within the scope of the Commission's consideration of the weight of all the evidence on the issue of "need." *Application of Transource Pennsylvania, LLC for approval to acquire a certain portion of the lands of various landowners in York and Franklin Counties, Pennsylvania for the siting and construction of the 230 kV Transmission Line associated with the Independence Energy Connection East and West Projects as necessary or proper for the service, accommodation, convenience or safety of the public*, 2021 PA. PUC LEXIS 143, *62 (Order May 20, 2021) *aff'd Transource Pa., LLC v. Pa. PUC*, 278 A.3d 942 (Pa. Cmwlth. 2022).
14. In *TRAILCo*, the Commission expressly held that it was entirely appropriate for the ALJs to examine federal policy and national issues revolving around the transmission grid, as well as the potential costs of green house emissions, DSM and energy efficiency alternatives and whether the proposal was built to facilitate west-to-east transfers of generation when making its need determination under Section 1501 of the Public Utility Code and Section 57.76(a)(1) of the Commission's regulations. *In re: Application of Trans-Allegheny Interstate Line Co.*, 2008 Pa. PUC LEXIS 35, *47-48 (Nov. 13, 2008).
15. In a prior case where the Commission strictly applied need to mean necessity from an engineering perspective, the Commission's decision was reversed on appeal. *Pa. Power & Light Co. v. Pa. PUC*, 696 A.2d 248, 250 (Pa. Cmwlth. 1997).
16. As a matter of law, an increase in rates involves a substantial property right, entitling ratepayers to notice and procedural due process. *McCloskey v. Pa. PUC*, 195 A.3d 1055, 1068 (Pa. Cmwlth. 2018) (citing *Barasch v. Pa. PUC*, 546 A.2d 1296, 1305-06 (Pa. Cmwlth. Ct. 1988); citing also U.S. Const. amend. XIV, § 1).
17. Given that approval of the LON will substantially affect the interests of consumers, the Commission must, consistent with its other statutory responsibilities, take such action with due consideration to the interests of consumers. 71 P.S. § 309-5.
18. The Commission will accept evidence upon, and in its determination of the application it will consider, *inter alia*, the present and future necessity of the proposed HV line in furnishing service to the public. 52 Pa. Code § 57.75(e).

19. Prior Commission decisions which approved the construction of transmission facilities while other regulatory approvals were pending included independent and substantial evidence that construction must take place regardless of the outcome of the pending approvals. *Energy Conservation Counsel of Pa. v. Pa. PUC*, 25 A.3d 440, 452 (Pa. Cmwlth. 2011).
20. Reliability includes adequacy and security; 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. 66 Pa. C.S. § 2803.
21. The FERC has found that, if resources cannot meet load, or are insufficient to provide a reserve margin above expected load, then instability, uncontrolled separation or cascading failures can result from the unanticipated loss of a system element; if this situation occurs, reliable operation is not achieved due to resource inadequacy. *Planning Res. Adequacy Assessment Reliability Std.*, 134 FERC P61,212, ¶ 25 (2011).
22. The FERC has made it expressly clear that its authority does not preempt state action to preserve resource adequacy, including in the PJM region. *Planning Res. Adequacy Assessment Reliability Std.*, 134 FERC P61,212, ¶ 20-26 (2011); *Cal. Indep. Sys. Operator Corp.*, 116 FERC P61,274, ¶ 1112 (2006); 16 U.S.C. § 824o(i)(3).
23. The Public Utility Code encourages that electric utilities work with regional and federal entities to ensure the continued provision of adequate, safe and reliable electric service to the citizens and businesses of this Commonwealth. 66 Pa. C.S. § 2805(a).
24. Though there are aspects of resource adequacy assurance beyond the scope of the Commission's jurisdiction, the Commission and the EDCs it regulates are nevertheless charged with maintaining reliability, including resource adequacy, for the electric system. 66 Pa. C.S. § 1501.
25. In carrying out its duties to maintain system reliability, the electric distribution company shall implement procedures to require all electric generation suppliers to deliver energy to the electric distribution company at locations and in amounts which are adequate to meet the energy supplier's obligations to its customers. 66 Pa. C.S. § 2807(a).
26. An EDC plays a unique and irreplaceable role in maintaining system reliability: only the distributor is in a position to enhance system reliability because of the myriad of generators and transmission companies that place power in a particular distribution grid. *PP&L Indus. Customer Alliance v. Pa. PUC*, 780 A.2d 773, 782 (Pa. Cmwlth. 2001).
27. Some mechanism has to be in place so that during periods of peak demand, there are no brownouts or blackouts on the system, and that the Commission can order customers by whatever scheme to curtail usage during abnormal peaks so long as substantial evidence

supports that there is no reasonable alternative. *PP&L Indus. Customer Alliance v. Pa. PUC*, 780 A.2d 773, 782 (Pa. Cmwlth. 2001).

28. If a utility were to interconnect a new customer, and the interconnection of that customer would worsen system reliability for existing customers – including through creating resource inadequacy – then such interconnection would constitute unreasonable or undue discrimination in service. 66 Pa. C.S. § 1502.
29. Discrimination will be found if any unreasonable preference or difference in the treatment of one party versus another is shown in the provision of service; a utility must offer a reasonable justification when it provides service to one class of customers while denying the same to another. *Pa. PUC v. Columbia Gas of Pa., Inc.*, 2018 Pa. PUC LEXIS 431, *75, *77 (Order Dec. 6, 2018).
30. During historical periods of resource inadequacy, the Superior Court reversed Commission action as an unlawful discrimination in service when residential customers’ access to scarce resources was threatened as a result of Commission-authorized extensions of the distribution system. *United Nat. Gas Co. v. Pa. PUC*, 33 A.2d 752, 757 (Pa. Super. 1943); *Pa. Gas Co. v. Pa. Pub. Serv. Comm’n*, 83 Pa. Super. 557, 566 (Pa. Super. 1924).
31. Through successive iterations of the Public Utility Code, the General Assembly preserved that the conditions under which a utility is required to offer extensions of service are subject to a utility’s reasonable rules and regulations governing the conditions under which it shall be required to render service. 66 Pa. C.S. § 1501.
32. Where reliability benefits are averred to result from a proposed transmission line, it is appropriate for the Commission to consider if reliability harms would result, instead. *Transource Pa., LLC v. Pa. PUC*, 278 A.3d 942, 966 (Pa. Cmwlth. 2022) (citing *Hess v. Pa. PUC*, 107 A.3d 246, 260 (Pa. Cmwlth. 2014)).
33. The Commission, under the Public Utility Code, is obligated to ensure “safe and reliable electric service to all consumers in the Commonwealth, including” conformity with the reliability standards required by NERC. 66 Pa. C.S. § 2804(1); 16 U.S.C. § 824o(i)(3).
34. While transmission rates, including cost assignment and allocation between retail customers, are subject to the FERC’s jurisdiction, the terms and conditions of retail service are not. *Promoting Wholesale Competition Through Open Access Non-discriminatory Transmission Services by Public Utilities, Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order 888, 75 FERC P 61,080 (1996), Order at 31,783 *aff’d* *New York v. FERC*, 535 U.S. 1, 22-23 (2002); *Mansfield Mun. Elec. Dept. v. New England Power Co.*, 97 FERC ¶ 61,134, 61,613-14 (2001), *order on reh’g*, 98 FERC ¶ 61,115 (2002); 16 USCS § 824d(a); *Tri-State Generation and Transmission Ass’n*, 193 FERC P61,070, ¶¶ 45-52 (2025); *Cmwlth. Ed. Co.*, 194 FERC P61,181 (2026) (Chang, Cmm’r, Concurring); *Tri-State Generation and Transmission Ass’n*, 196 FERC P61,127, ¶¶ 65-68 (2026).

35. The Commission must also consider evidence regarding the safety of the proposed HV line when evaluating an application for a high-voltage transmission line. 52 Pa. Code § 57.75(e)(2).
36. In reaching determinations under 52 Pa. Code Section 57.76(a)(3) and (4), the Commission will consider the evidence of record that is relevant to potential environmental impacts of the Phase One Project. 52 Pa. Code § 57.75(e)(1-3).
37. The Environmental Rights Amendment protects the rights of Pennsylvanians to clean air, pure water, and the preservation of the environment, while also requiring the Commonwealth to conserve and maintain the public's natural resources for the benefit of all Pennsylvanians. Pa. Const., Art. 1, § 27; *Pennsylvania Environmental Defense Foundation v. Commonwealth of Pennsylvania, et al.*, 161 A.3d 911, 930 (Pa. 2017).
38. PPL Electric failed to meet its burden of proof that (1) there is a need for the proposed high-voltage transmission line facilities, (2) the proposed high-voltage transmission line facilities will not create an unreasonable risk of danger to the health and safety of the public, and (3) the proposed high-voltage transmission line facilities are in compliance with applicable statutes and regulations providing for the protection of the natural resources of this Commonwealth. 66 Pa. C.S. § 332(a); 52 Pa. Code § 57.56(a).

Appendix C

OCA Proposed Ordering Paragraphs

It is hereby ORDERED THAT:

1. The Letter of Notification of PPL Electric Utilities Corporation filed pursuant to 52 PA. Code Chapter 57 with respect to the approval to build approximately 1.1 miles of new parallel double circuit 230 kV transmission taps that are needed to connect the existing Susquehanna-Harwood #1 & #2 transmission lines on the New Tomhicken 230 kV switchyard that are respectively located in Luzerne County, Pennsylvania, is disapproved.
2. PPL Electric Utilities Corporation is directed to comply with the application process set forth in 52 PA. Code Chapter 57, Subchapter G.
3. In any renewed application for the Phase One Project submitted pursuant to the application process set forth in 52 PA. Code Chapter 57, Subchapter G, PPL Electric Utilities Corporation is directed to provide evidence of the following:
 - a. Regulatory and land-use approvals that Customer One may operate its facilities consistent with its ESA;
 - b. Customer One has (1) satisfied PJM's bring your own new capacity requirement or (2) will take service subject to an interruptible rate, either PJM's interim resource adequacy service construct or its functional equivalent;
 - c. Commission review and approval of the Phase Two siting application, where such approval would prevent potential North American Electric Reliability Corporation reliability violations associated with Customer One fulfilling the contracted-for load ramp;
 - d. Modification of Customer One's ESA and/or PPL Electric's retail electric distribution tariff, evidencing that Customer One's service can be interrupted if its load exceeds the amount necessary to cause NERC reliability violations; and
 - e. Modification of Customer One's retail electric distribution service is conditioned on Customer One paying for 100% of the but-for costs of its interconnection and service.

DATE: _____

Erin L. Gannon
Administrative Law Judge

John M. Coogan
Administrative Law Judge