
Garrett P. Lent
Associate

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November 13, 2024

VIA ELECTRONIC FILING

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street, 2nd Floor North
P.O. Box 3265
Harrisburg, PA 17105-3265

**Re: Letter of Notification Of PPL Electric Utilities Corporation, Filed Pursuant to 52 Pa. Code Chapter 57 Subchapter G, For Approval To Rebuild The Three Existing Sections of the Double-Circuit 230 kV Transmission Lines Connecting The UGI Utilities, Inc. Owned Mountain 230-69 kV Substation To The PPL Electric Owned Jenkins 230-69 kV Substation And Stanton 230-69kV Substation That Are respectively Located In Luzerne County, Pennsylvania
Docket No. A-2024-_____**

Dear Secretary Chiavetta:

Attached for filing is the Letter of Notification of PPL Electric Utilities Corporation. As indicated on the Certificate of Service, copies of the Letter of Notification are being served by certified mail, return receipt requested, upon the involved governmental agencies, municipalities and property owners. Construction of the Project will commence upon the Commission's approval of this filing, with an estimated construction start date of May 2025, with an anticipated in-service date of November 30, 2028.

If you have any questions concerning this matter, please contact me at the address or telephone numbers provided above.

The associated \$350.00 filing fee has been paid by Post & Schell, P.C. as of the time of filing.

Rosemary Chiavetta, Secretary
November 13, 2024
Page 2

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Garrett P. Lent". The signature is fluid and cursive, with a large initial "G" and "L".

Garrett P. Lent

GPL/dmc
Enclosures

cc: David Screven, Esquire
Jordan Van Order
Paul T. Diskin
Certificate of Service

CERTIFICATE OF SERVICE

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

VIA CERTIFIED MAIL: RETURN RECEIPT REQUESTED

Pennsylvania Bureau of Investigation
and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
2nd Floor, Room-N201
Harrisburg, Pennsylvania 17120
Attn: Alison Kaster

Pennsylvania Department of Environmental
Protection
400 Market Street
10th Floor Rachel Carson State Office
Building
Harrisburg, Pennsylvania 17101
Attn: Regional Permit Coordination Office

Pennsylvania Department of Transportation
Keystone Building
400 North Street, Ninth Floor
Harrisburg, Pennsylvania 17120
Attn: Jeffrey Spotts, Chief Counsel

Pennsylvania Historical and Museum
Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, Second
Floor
400 North Street
Harrisburg, Pennsylvania 17120-0093
Attn: Ms. Emma Diehl, Division Manager

Pennsylvania Department of Conservation
and Natural Resources
Rachel Carson State Office Building
400 Market Street
Harrisburg, Pennsylvania 17105-8767
Attn: Rebecca Bowen, Ecological Services
Section Chief

Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9797
Attn: David Gustafson, Director, Bureau of
Wildlife Habitat Management

Pennsylvania Fish and Boat Commission
450 Robinson Lane
Bellefonte, Pennsylvania 16823-9620
Attn: Christopher A. Urban, Chief, Natural
Diversity Section

Pennsylvania Office of Consumer Advocate
555 Walnut Street
5th Floor Forum Place
Harrisburg, Pennsylvania 17101-1923
Attn: Patrick Cicero, Consumer Advocate

Pennsylvania Office of Small Business
Advocate
555 Walnut Street
1st Floor Forum Place
Harrisburg, Pennsylvania 17101
Attn: NazAarah Sabree, Small Business
Advocate

U.S. Army Corps of Engineers
Baltimore District
2 Hopkins Plaza
Baltimore, Maryland 21201
Attn: Public Affairs Office

U.S. Fish and Wildlife Service
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, Pennsylvania 16801

Luzerne County Conservation District
325 Smiths Pond Road
Shavertown, Pennsylvania 18708
ATTN: Josh Longmore, Executive Director

Luzerne County Planning Commission
Penn Place Building
20 North Pennsylvania Avenue
Wilkes-Barre, Pennsylvania 19712
ATTN: N. Brian Caverly, Chair

Courtdale Borough
5 Blackman Street
Courtdale, Pennsylvania 18704
ATTN: Carl Hodorowski, Borough
President

Exeter Borough
1101 Wyoming Avenue
Exeter, Pennsylvania 18643
ATTN: Joseph Pizano, Chair

Exeter Township (Luzerne County)
2305 State Route 92 Hwy
Harding, Pennsylvania 18643
ATTN: Nancy Redmond, Chair

Jenkins Township
46 ½ Main Street,
Inkerman, Pennsylvania 18640
ATTN: Stanley E. Rovinski, Chair

Kingston Township
Back Mountain, 180 East Center Street,
Shavertown, Pennsylvania 18708
ATTN: Thomas Ketchner, Chair

Larksville Borough
211 East State Street,
Larksville Pennsylvania, 18704
ATTN: Michael Lehman, President of
Council

Plains Township
126 North Main Street,
Wilkes-Barre, Pennsylvania 18705
ATTN: Gerald Yozwiak, Chair

Plymouth Township
925 West Main Street
Plymouth, Pennsylvania 18651
ATTN: James Murphy, Chair

Swoyersville Borough
675 Main Street,
Swoyersville, Pennsylvania 18704
ATTN: Pete Cwalina, Jr., Borough Council
President

West Wyoming Borough
464 West 8th Street,
West Wyoming, Pennsylvania 18644
ATTN: Gary Stavish, Chair

Wyoming Borough
277 Wyoming Avenue,
Wyoming, Pennsylvania 18644
ATTN: Joseph Dominick, Mayor

1845 Susquehanna Ave LLC
959 Wyoming Ave
Exeter, Pa 18643-1102

Anthony W Acernese
1189 Rozelle Rd
Harding, Pa 18643-2918

Architecture & Engineering Group
140 Maffett St
Plains, Pa 18705-1000

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109 Wyndtree Dr
Wilkes Barre, Pa 18702-2750

Bank Of NY Mellon Serie 2006-2
3217 Decker Lake Dr
Salt Lake City, Ut 84119-3284

Birchwood Village MHC LLC
5567 Reseda Blvd, 330
Tarzana, Ca 91356-2673

John P Brdaric & James A Brdaric-Fedor
913 Miller St
Luzerne, Pa 18709-1131

Jeffrey M & Amy Ann Cegelka
Rr 4 Box 338a
West Pittston, Pa 1864-9302

4G Realty LLC
164 S Highland Dr
Jenkins Township, Pa 18640-3249

James & Susan Antosh
1079 Rozelle Rd
Harding, Pa 18643-2916

Byron Earl Atherholt
633 Campground Rd
Harding, Pa 18643-7045

William & Andrea Balavage
329 Bunker Hill Rd
Wyoming, Pa 18644-9380

Marilyn & Hashgen, Carl Bartoli
264 S Mountain Blvd
Mountain Top, Pa 18707-1914

Channing Elizabeth & Richard Boback
500 Mountain Rd
Larksville, Pa 18651-4220

Brdaric Excavating Inc
913 Miller St
Luzerne, Pa 18709-1131

Anna Bruns
2137 Schooley Rd
Harding, Pa 18643-2911

Francis P & Rebecca Chervenitski
114 Vine St
Plymouth, Pa 18651-2443

Marc W & Kimberly A Chervinitski
347 Johns Rd
Harding, Pa 18643-7124

Timothy J Connolly
481 Union St
Luzerne, Pa 18709-1215

Lee Daniel Culver & Taylor Michelle
434 Upper Demunds Rd
Dallas, Pa 18612-9079

Chester Danowski
267 Moskaluk Rd
Berwick, Pa 18603-6423

Kelly D Dejesus
32 Park Ln
Exeter, Pa 18643-2511

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1400 Deer Creek Rd, D
Surfside Beach, Sc 29575-8264

Scott C & Elizabeth A Dodgson
1 Widener Dr
Wilkes Barre, Pa 18702-2700

Curt E Dzugan
1204 Hillcrest Rd
Shavertown, Pa 18708-9435

Mollie Evans
59 Center St
Hughestown, Pa 18640-3011

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604 Campground Rd
Harding, Pa 18643-7046

Ann & Bernard Cossack
319 Drake St
Old Forge, Pa 18518-2338

Danko, Michael & Michelle
93 Slocum Ave
Exeter, Pa 18643

Michelle Davenport
12 Highwoods Rd
Wyoming, Pa 18644-9330

Michael & Kathleen Dimaggio
44 Lombardo Dr
Wilkes Barre, Pa 18702-2730

Albert & Debra Dirlam
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Harding, Pa 18643-2924

Daisy T Donovan
36 S Thomas Ave
Kingston, Pa 18704-5406

Lois Ellsworth
22 Angelina Ln
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Exeter Hose Company No I
57 Lincoln St
Exeter, Pa 18643-2637

Exeter Hose Company 1
1405 Susquehanna Ave
Exeter, Pa 18643-2500

Jamie A Fedor
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Joseph J & Barbara L Frederick
67 Mt Zion Rd
Wyoming, Pa 18644-9405

Thomas Garrity
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Harveys Lake, Pa 18618-3121

Gerald Gower
65 Warman St
Larksville, Pa 18651-4210

Patrick & Jennifer Heck
1347 Shoemaker Ave
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Deborah Jean Hill & Albert Jeffrey
690 Hill Ln
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David & Kristine M Hilstolsky
852 Coon Rd
Wyoming, Pa 18644-6045

Clayton Houch
27 Gashi Rd
Harding, Pa 18643-7053

Thomas P & Sandra J Federo
250 Deer Run Rd
Plymouth, Pa 18651-4405

Francis D & Joan A Fisher
5 Hillside Ct
Larksville, Pa 18651-4129

Nicole Frusciante & John Esposito
105 Irene St
Exeter, Pa 18643-1081

Charles & Doreen Golanoski
2 Hemlock St
Nanticoke, Pa 18634-4103

Charles R & Elizabeth A Handorf
217 Apel Ave
Oreland, Pa 19075-1203

William R Hellmann
246 W Bridge St
Morrisville, Pa 19067-7119

Hill, Mark K
1811 Stonington Rd
Bethlehem, Pa 18018-1448

Robert W Under The Hooper
1230 Rozelle Rd
Harding, Pa 18643-2920

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Ann M & Weiss, Diane Ide
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Exeter, Pa 18643-9306

James H & Ida M Ide
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Exeter, Pa 18643-9308

Kendall Dawn Jackloski
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Dallas, Pa 18612-1487

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46 1/2 N Main St
Inkerman, Pa 18640

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Pittston, Pa 18640-3219

Mark Laverdi & Donna Haggerty
4 Widener Dr
Wilkes Barre, Pa 18702-2751

Thomas M & Beverly H Law
2249 Mountain Rd
Larksville, Pa 18651-4114

Jessica M & Dennis R Lee
863 Mountain Rd
Larksville, Pa 18651-4235

Niles W & Shannon Maciolek
576 Campground Rd
Harding, Pa 18643-7043

Maddie Enterprises LLC
817 Apple Tree Rd
Harding, Pa 18643-7037

Vito & Marie T Malacari
148 Jason Dr
Plains, Pa 18702-2725

Lindsay & Insogna, Janelle McCabe
124 Wynchurch Cir
Pittston, Pa 18640-3766

Methodist Homes Wesley Village Campus
209 Roberts Rd
Pittston, PA 18640

Joseph & Elizabeth Latona
3 Widener Dr
Wilkes Barre, Pa 18702-2700

Mark D & Monica L Law
2101 Mountain Rd
Larksville, Pa 18651-4100

Alan David Lee
885 Mountain Rd
Larksville, Pa 18651-4235

Joseph M Lombardo
16 Broad St
Pittston, Pa 18640-1852

Nicole G & Kenneth J Macleod
999 Schooley Ave
Exeter, Pa 18643-9308

John J & Trudy A Mahasky
107 Wyndtree Dr
Wilkes Barre, Pa 18702-2750

Sean McAndrew & Dierdre Ueberroth
86 Fire Cut Rd
Wyoming, Pa 18644-9384

Mericle River Road LLC
100 Baltimore Dr
Wilkes Barre, Pa 18702-7955

David & Janice Metz
56 Fire Cut Road King Twp
Wyoming, Pa 18644-9384

Louis Mikolaichik
45 Louis Ln
West Wyoming, Pa 18644-9425

New Enterprise Stone & Lime Co Inc
3912 Brumbaugh Rd
New Enterprise, Pa 16664-9137

Thomas A & Judy A Olaviany
570 Campground Rd
Harding, Pa 18643-7043

PA American Water Co
800 W Hershey Park Dr
Hershey, Pa 17033-2400

Mario A Palmieri
1308 Wyoming Ave, 101
Exeter, Pa 18643-1426

Charlotte A Para
3254 Market St
Jenkins Township, Pa 18640-3456

Amita R & Ragesh R Patel
32 Rosedale Dr
Pottstown, Pa 19464-4961

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Exeter, Pa 18643-2527

Thomas & Naomi Pizano
255 Susquehanna Ave
Exeter, Pa 18643-2630

Nature Conservancy
1100 Schooley Ave
Exeter, Pa 18643-9328

John Nikoloff
457 W 4th St
West Wyoming, Pa 18644-1733

Charles Osenkarski
12 Laurel St
Plains, Pa 18705-1113

Pagnotti Enterprises Inc
144 Brown Rd
Yatesville, Pa 18640-3723

Michael & Anna Panzitta
40 Park Ln
Exeter, Pa 18643-2511

Richard C Parlanti
209 How Kola Rd
Dalton, Pa 18414-7952

James & Frances Pisano
1399 Susquehanna Ave
Exeter, Pa 18643-2522

Louis R & Katrina M Pizano
682 Ne 77th St
Miami, Fl 33138-5107

Plains Township
126 N Main St
Plains, Pa 18705-1506

Pramukhswami Bapa LLC
1712 Wyoming Ave
Exeter, Pa 18643-1433

Redev Auth Of Luz Co
16 Luzerne Ave
West Pittston, Pa 18643-2817

Carol & Ruth Renna
584 Campground Rd
Harding, Pa 18643-7043

Robert A & Christina Rodzinak
305 Woody Rd
Wilkes Barre, Pa 18702-2729

Joseph & Jacqueline Ruane
42 Lombardo Dr
Wilkes Barre, Pa 18702-2730

Joseph J & Joan M Ruscavage
337 Bunker Hill Rd, Twp
Wyoming, Pa 18644-9380

Kit E & Irene L Samuels
900 Corby Rd
Larksville, Pa 18651-4017

Saylor Ave Properties LLC
16 Broad St
Pittston, Pa 18640-1852

William & Mary Ellen Shaffer
1794 Susquehanna Ave
Exeter, Pa 18643-2524

Michael & Candice Ruth Sopata
103 Irene St
Exeter, Pa 18643-1081

Plaza 1701 LLC
100 Susquehanna Ave
West Pittston, Pa 18643-1709

Mary R Quick
33 Park Ln
Exeter, Pa 18643-2510

Paul W & Knauff, Ann M Renfer
1580 State Route 92 Hwy
Harding, Pa 18643-3039

Scott D & Megan E Rieder
225 Montgomery Ave
West Pittston, Pa 18643-2136

Joseph Romanowski
155 Searfoss Rd
Harding, Pa 18643-2906

Sarah M & Ashley, John A Rupert
1193 Rozelle Rd
Harding, Pa 18643-2918

Frank & Martina Ryder
5 Della Ln
Harding, Pa 18643-2933

Nathan & Ruth Gertrude Sands
1600 State Route 92 Hwy
Harding, Pa 18643-3047

Shadow Ridge Estates LLC
777 Ash St
West Pittston, Pa 18643-1741

Pramukhswami Bapa LLC
1712 Wyoming Ave
Exeter, Pa 18643-1433

Redev Auth Of Luz Co
16 Luzerne Ave
West Pittston, Pa 18643-2817

Carol & Ruth Renna
584 Campground Rd
Harding, Pa 18643-7043

Robert A & Christina Rodzinak
305 Woody Rd
Wilkes Barre, Pa 18702-2729

Joseph & Jacqueline Ruane
42 Lombardo Dr
Wilkes Barre, Pa 18702-2730

Joseph J & Joan M Ruscavage
337 Bunker Hill Rd, Twp
Wyoming, Pa 18644-9380

Kit E & Irene L Samuels
900 Corby Rd
Larksville, Pa 18651-4017

Saylor Ave Properties LLC
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Pittston, Pa 18640-1852

William & Mary Ellen Shaffer
1794 Susquehanna Ave
Exeter, Pa 18643-2524

Warren W Linda K Smith
Rr 4 Box 660
West Pittston, Pa 18643

Paul & Irene Sorbelli
103 E Saylor Ave
Wilkes Barre, Pa 18702-2756

St Cecelias Cemetery
Wyoming Ave
Exeter, Pa 18643

Daniel Steele
976 Steele Rd
Larksville, Pa 18651-4054

Joseph & Elizabeth Strazdus
629 Rozelle Rd
West Pittston, Pa 18643

Bruno & Marie Tafani
15 Sturmer St
Exeter, Pa 18643-1015

Nello J & Jean Talamelli
1355 Shoemaker Ave
West Wyoming, Pa 18644

Township Of Plains
3912 Brumbaugh Rd
New Enterprise, Pa 16664-9137

UGI Corp
Po Box 3200
Reading, Pa 19612

Michael & Candice Ruth Sopata
103 Irene St
Exeter, Pa 18643-1081

Vincent Sorbelli
107 E Saylor Ave
Wilkes Barre, Pa 18702-2756

St Vincent Cemetery
Mountain Rd
Larksville, Pa 18651

James & Carol Stone
14 Towers St
Shavertown, Pa 18708-9723

Swoyersville Borough
675 Main St
Swoyersville, Pa 18704-1258

Nello & Hardiman, Linda Talamelli
1401 Shoemaker Ave
West Wyoming, Pa 18644-1020

Michael M & Judy A Tkach
37 Park Ln
Exeter, Pa 18643-2510

Gary D Turner
545 W State St
Larksville, Pa 18651

UGI Corp
511 E Notrhamption St A-2
Wilkes Barre, Pa 18711

United Mobile Homes Of Pa
Juniper Business Plaza
3499 Us Highway 9, 3c
Freehold, Nj 07728-3277

Josey A Valenti
Po Box 528
Millville, Pa 17846-0528

Mangus & Baker, Dorothy Vandunk
1594 State Route 92 Hwy
Harding, Pa 18643-3039

Maryalice & Sincavage, Stephen E Vitale
1356 Steele Rd
Larksville, Pa 18651-4061

Stanley G & Rosemarie Wateski, V
789 Wyoming Ave
Kingston, Pa 18704-3833

Michael Wienckoski
1161 Rozelle Rd
Harding, Pa 18643-2918

Arlene Williams
Po Box 128
West Pittston, Pa 18643

Wyoming Borough
277 Wyoming Ave
Wyoming, Pa 18644-1646

Tabitha C & Patricia Youngblood
965 Corby Rd
Plymouth, Pa 18651-4018

Valenti Realty LLC
Po Box 3044
West Pittston, Pa 18643-0044

David P & Allison M Vanauken
381 W 6th St
West Wyoming, Pa 18644-1714

Date: November 13, 2024

Joseph P & Karen R Vavrek
Rr 4 Box 339
West Pittston, Pa 18643

Suzanne & Scott Warren
103 Wyndtree Dr
Wilkes Barre, Pa 18702-2750

Kurt D & Megan A Weinland
107 Irene St
Exeter, Pa 18643-1081

Wilkes Limited Partnership
52 Wyndwood Dr
Wilkes Barre, Pa 18705-3822

Wrubel, James & Marlene
1921 Susquehanna Ave
Exeter, Pa 18643-2527

Donald J & Mary Ann Zurenda
364 Slocum Ave
Exeter, Pa 18643-1194


Garrett P. Lent

**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION**

Letter Of Notification Of PPL Electric :
Utilities Corporation, Filed Pursuant To 52 :
Pa. Code Chapter 57 Subchapter G, For : Docket No. A-2024-_____
Approval To Rebuild The Three Existing :
Sections Of Double-Circuit 230 kV :
Transmission Lines Connecting The UGI :
Utilities, Inc. Owned Mountain 230-69 kV :
Substation To The PPL Electric Owned :
Jenkins 230-69 kV Substation And Stanton :
230-69kV Substation That Are :
Respectively Located In Luzerne County, :
Pennsylvania :

LETTER OF NOTIFICATION

TO THE PENNSYLVANIA PUBLIC UTILITY COMMISSION:

PPL Electric Utilities Corporation (“PPL Electric” or the “Company”) hereby files this Letter of Notification pursuant to Section 57.72(d)(1)(i) of the Pennsylvania Public Utility Commission’s (“Commission”) regulations, 52 Pa. Code § 57.72(d)(1)(i), to rebuild three existing sections of double-circuit 230 kilovolt (“kV”) transmission lines (known as the “Mountain-Jenkins-Stanton 230 kV Transmission Lines”) connecting the UGI Utilities, Inc. (“UGI”) owned Mountain 230-69 kV Substation (“Mountain Substation”) to the PPL Electric owned Jenkins 230-69 kV Substation (“Jenkins Substation”) and Stanton 230-69 kV Substation (“Stanton Substation”) (collectively the “Project”).¹

The proposed Project will address reliability, asset health and safety concerns related to the deteriorated condition of the COR-TEN® lattice towers of PPL Electric’s Mountain-Jenkins-

¹ For a complete list of municipalities and counties crossed by the Project, please refer to Attachment 5 to this Letter of Notification.

Stanton 230 kV Transmission Lines. The Project contemplates the replacement and rebuilding of these existing COR-TEN® lattice towers to address structural reliability concerns associated with the experience of “pack-out rust”² in many of the joints of the subject lattice towers. The experience of pack-out rust in the joints of the subject towers has accelerated asset health concerns and accelerated the rate at which the subject towers were expected to reach end-of-life.

The Mountain-Jenkins-Stanton 230 kV Transmission Lines and the three interconnected substations are located in Luzerne County, Pennsylvania³. PPL Electric has provided information regarding this Project to all identified political subdivisions, and none of them have objected to the Project. Construction of the Project will commence upon the Commission’s approval of this filing, with an estimated construction start date of May 2025 with an anticipated in-service date of November 30, 2028.⁴ PPL Electric is seeking the Commission’s decision by no later than April 1, 2025 so if approval is granted, the Company has sufficient time to finalize the items listed below in footnote 4.

In support thereof, PPL Electric states as follows:

² As explained in Attachment 1 – Necessity Statement, “pack-out rust” or “pack rust” is a form of localized corrosion typical of steel components that develop a crevice into an open atmospheric environment, which results in rust packing between conjoined steel components. As described further herein, pack-out rust accelerates the deterioration of asset health and can result in shearing off bolts, loss of structural integrity, members disconnecting from lattice towers, and tower failure.

³ For a complete list of municipalities and counties crossed by the Project, please refer to the Letter of Notification, Attachment 5.

⁴ PPL Electric is submitting the Letter of Notification in its schedule at a point in time that will allow the Company to maintain its planned construction schedule and, in the end, complete its scheduled in-service requirement. PPL Electric’s schedule accounts for long lead material timelines, additional detailed engineering activities, and construction competitive bidding that all will be required to be completed prior to construction start. In addition, it also should be noted that the Company has had to increase material procurement durations and shipping durations based on industry and national supply chain delays on certain materials.

I. INTRODUCTION

1. This Letter of Notification is filed by PPL Electric, a public utility that provides electric distribution, transmission, and provider of last resort services in Pennsylvania subject to the regulatory jurisdiction of the Commission.

2. PPL Electric's address is as follows:

PPL Electric Utilities Corporation
827 Hausman Road
Allentown, Pennsylvania 18104

3. PPL Electric's attorneys are:

Michael J. Shafer (I.D. # 205681)
PPL Services Corporation
645 Hamilton Street, Suite 700
Allentown, PA 18101
Voice: 610-774-2599
Fax: 610-774-4102
E-mail: mjshafer@pplweb.com

David B. MacGregor (I.D. # 28804)
Garrett P. Lent (I.D. # 321566)
Nicholas A. Stobbe (I.D. # 329583)
Post & Schell, P.C.
17 North Second Street
12th Floor
Harrisburg, PA 17101-1601
Voice: 717-731-1970
Fax: 717-731-1985
E-mail: dmacgregor@postschell.com
E-mail: glent@postschell.com
E-mail: nstobbe@postschell.com

PPL Electric's attorneys are authorized to receive all notices and communications regarding this Letter of Notification.

4. PPL Electric furnishes electric service to approximately 1.4 million customers throughout its certificated service territory, which includes all or portions of twenty-nine counties and encompasses approximately 10,000 square miles in eastern and central Pennsylvania. PPL Electric is a "public utility" and an "electric distribution company" as defined in Sections 102 and 2803 of the Pennsylvania Public Utility Code, 66 Pa.C.S. §§ 102, 2803.

5. PPL Electric owns approximately 5,000 miles of transmission lines operating at 69 kV (kilovolts) or higher, approximately 375 substations with a capacity of 10 MVA (megavolt

amperes) or more, and approximately 43,000 miles of distribution lines operating at less than 69 kV.

6. This Letter of Notification includes the following accompanying Attachments:

- Attachment 1 Necessity Statement.
- Attachment 2 Engineering Description.
- Attachment 3 Description of Project Area.
- Attachment 4 PPL Electric Design Criteria and Safety Practices.
- Attachment 5 Landowners And Agencies List.

7. This Letter of Notification and accompanying Attachments, which are incorporated herein by reference, contain all the information required by 52 Pa. Code § 57.72(d)(4).

II. THE PROJECT

A. NEED FOR THE PROJECT

8. PPL Electric has a responsibility to provide transmission assets and maintain them in a manner that is safe, reliable, and resilient to meet the needs of the electric system and the service expectations of its customers. To meet this duty, PPL Electric applies its transmission asset management planning procedure, which includes system performance and condition assessments. These performance and condition assessments identify system needs and prioritize projects based on several variables such as equipment age, condition, maintenance schedule, and impact on system reliability and performance to ensure a reliable electric grid and reasonable service to its customers.

9. As explained in greater detail below and in Attachment 1 – Necessity Statement, this Project is necessary to resolve significant asset health condition concerns across the Mountain-Jenkins-Stanton 230 kV Transmission Lines and the three interconnected substations, *i.e.*, the

Mountain, Jenkins, and Stanton Substations, associated with the presence of pack-out rust in the existing COR-TEN® steel lattice towers and thereby resolve service reliability and safety risks associated with the potential failure of these structures.

10. The Project as proposed addresses these concerns in a cost-efficient manner, as compared to either a replacement alternative or a remediation and later replacement alternative. In particular, the Project as proposed avoids the substantial uncertainties surrounding potential remediation of the existing COR-TEN® steel lattice towers, avoids redundant inspection and/or additional remediation of these structures, and is the lowest cost alternative. Therefore, and for the reasons more fully explained below, the Commission should approve the Project as proposed.

1. Existing System

11. The Project is composed of three transmission line segments that connect the Mountain, Jenkins, and Stanton Substations.

12. These specific transmission line segments include:

- The Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line that extends from the Mountain Substation to an intersection with the Mountain-Jenkins/Jenkins-Stanton 230 kV double-circuit.
- The Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line that extends from the Jenkins Substation to an intersection with the Mountain-Stanton/Mountain-Jenkins 230 kV double-circuit line.
- The Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line that extends from this intersection point to the Stanton Substation.

13. The Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line consists of an approximate 9.8-mile-long section that extends between the Mountain Substation and the intersection with the Mountain-Jenkins/Jenkins-Stanton 230 kV double-circuit.

14. The Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line consists of six 1590 kcmil⁵, 45/7 stranding, “Lapwing” ACSR⁶ conductor wires and one overhead ground wire (“OHGW”) and one 48-count optical ground wire (“OPGW”). These conductor and ground wires are supported by a series of fifty-seven (57) transmission line structures that include forty-eight (48) COR-TEN® double-circuit steel lattice tower structures.

15. The Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line consists of an approximate 5.8-mile-long section that extends between the Jenkin Substation and the intersection with the Mountain-Stanton/Mountain-Jenkins 230 kV double-circuit line.

16. The Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line consists of six 1590 kcmil, 45/7 stranding, “Lapwing” ACSR conductor wires and one OHGW and one 48-count OPGW. These conductor and ground wires are supported by a series of thirty-seven (37) transmission line structures that include thirty-six (36) COR-TEN® double-circuit steel lattice tower structures.

17. The Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line consists of an approximate 2.7-mile-long section that extends between the Project intersection and the Stanton Substation.

18. The Mountain-Stanton/Jenkins-Stanton double-circuit line consists of six 1590 kcmil, 45/7 stranding, “Lapwing” ACSR conductor wires and one OHGW and one 48-count OPGW. These conductor and ground wires are supported by a series of fifteen (15) transmission line structures, all of which are COR-TEN® double-circuit steel lattice tower structures.

⁵ A kcmil is a thousand circular mils. A circular mil is the cross-sectional area of a wire one mil in diameter, where 1 kcmil = 0.5067 mm².

⁶ ACSR stands for aluminum conductor steel reinforced.

19. The double-circuit Mountain-Jenkins-Stanton 230 KV Transmission Lines are in PPL Electric's Central Region and are part of a larger 230 kV transmission network that connects generation in this region to load throughout PPL Electric and the rest of PJM's footprint. This 230 kV network includes the Mountain-Susquehanna 230 kV, Susquehanna T10–Mountain 230 kV, Stanton–Summit 3 & 4 230 kV and Summit–Lackawanna 230 kV Transmission Lines, which all support bulk power flow and feed various 230-69 kV substations in these regions.

20. A map of the existing system configuration is provided as Figure 1-1, in Attachment 1 – Necessity Statement.

2. Definition of the Problem

21. This Project is needed to address asset health concerns that are being accelerated by the presence of pack-out rust associated with COR-TEN® lattice towers. There are approximately 1,284 COR-TEN® lattice structures across PPL Electric's Transmission System that will need to be addressed in order to resolve asset health concerns like those identified below.

22. The existing Mountain-Jenkins-Stanton 230 KV Transmission Lines are supported by 99 COR-TEN® lattice structures, spanning an approximate total of 18 miles, and were originally constructed in the early 1970s. COR-TEN® lattice towers were commonly installed by the industry during this time because it was believed that the corrosion-resistant properties of weathering-steel would reduce future maintenance needs/costs. These towers had an expected service life of approximately 75 years at the time they were installed.

23. However, in 2013, PPL Electric hired a third-party contractor to perform an assessment of its 230 kV transmission lines under a steel structure capital maintenance program. The assessment identified that 126 of 131 surveyed structures (96%) had one or more structure legs rated Condition C (poor) or Condition D (very poor). Of those 126 structures, 25 had one or more structure legs that were identified as "priority," requiring immediate attention. In order to

extend the life of the asset and ensure no failures at the ground line, the 25 structures identified as “priority” received maintenance repairs in 2014, which included post leg, diagonal and base shoe repairs. Protective coating was applied to the remaining 101 COR-TEN® structures that rated Condition C or D but were not identified as “priority.” However, these remaining structures face constant asset health concerns due to the presence of pack-out rust.

24. The asset health concerns discovered by the 2013 assessment were heightened by the discovery of pack-out rust in the section joints of the subject COR-TEN® lattice towers. As explained in further detail in Attachment 1 – Necessity Statement, when the presence of pack-out rust becomes too severe, it can deform steel members and connecting hardware. Pack-out rust can also shear off bolts, cause loss of structural integrity, cause members to disconnect from the tower, and even result in tower failure. This now well-known inherent problem with COR-TEN® steel is also being seen in other infrastructure where two pieces of COR-TEN® Steel overlap at joints, such as those present on lattice towers⁷ and other steel structures such as steel bridges.

25. In 2013, the Mountain-Jenkins-Stanton 230 kV Transmission Lines also received steel structure inspections on all 99 COR-TEN® structures to observe the overall condition. Of the 99 inspected, 13 (~13%) observed were rated Condition C (poor) and 86 (~87%) were rated Condition D (extremely poor). Condition C indicates that the steel corrosion coating has not stabilized, and pack-out conditions are evident in several areas. There were also several larger areas of measurable thinning, with at least one member measuring an average loss of total cross

⁷ See, e.g., *Application of Virginia Electric and Power Company d/b/a Dominion Virginia Power For approval and certification of Carson-Rogers Road 500 kV Transmission Line Rebuild under Va. Code § 56-46.1 and the Utility Facilities Act, Va. Code § 56-265.1 et seq.*, Va. SCC Case No. PUE-2016-00078, at pp. 2-3, 9-10 (Hearing Examiner Report dated March 10, 2017) ; *Application of Virginia Electric and Power Company For approval and certification of Cunningham-Dooms 500kV Transmission Line Rebuild under Va. Code § 56-46.1 and the Utility Facilities Act, Va. Code § 56-265.1 et seq.*, Va. SCC Case No. PUE-2016-00020, at pp. 3-4 (Response of Dominion Virginia Power to Staff’s Supplemental Filing of March 30, 2017, filed April 13, 2017) (discussing the problems associated with “pack-out” rust on another utility’s COR-TEN® lattice tower structures).

section greater than 10%, but less than 20%. Condition D structures' steel corrosion coating has failed, and pack-out conditions are evident in large areas. These structures are also experiencing significant thinning, exceeding the loss of steel limits of 20% or greater loss of section. In these structures, there are areas where steel is completely rusted through. Protective coating was applied to all COR-TEN® structures that rated Condition C or D but were not identified as "priority." Coatings were not provided to structures deemed "priority," because they were reported directly to PPL Electric for immediate attention. Restorations of these structure foundations were performed due to the extent of the damage observed. The coatings are expected to provide a 10-year life extension, mitigating the accumulation of rust and corrosion on the tower. The 10-year life of the coatings has since surpassed, meaning the coatings are experiencing deterioration and are no longer an effective protective barrier. Coatings can provide a short-term solution but do not completely address or resolve the issues resulting from pack-out rust. These remaining structures still face constant asset health concerns due to the presence of pack-out rust.

26. PPL Electric further verified the results of the 2013 assessment by contracting with several independent, non-affiliated inspection companies to conduct evaluations of COR-TEN® lattice towers to determine the overall condition of these towers on the PPL Electric Transmission System in 2019. The 2019 evaluations included inspection of 15 randomly selected COR-TEN® lattice towers across the PPL Electric Transmission System by three separate contractors.⁸ Review of the three contractor reports revealed that over 90% of the joints at each structure exhibited visible pack-out in the connections. In addition, the review revealed that pack-out and section-loss was most prominent on the lower portions of the towers where there was higher likelihood of moisture build up.

⁸ Each contractor was asked to inspect 5 structures and prepare an engineering analysis of their condition, proposed remediation approach and estimated costs to remediate the identified structural defects.

27. Based on the prevalence of the observed deterioration, PPL Electric determined a more thorough and strategic evaluation was required to determine the full extent of the negative asset health impacts associated with COR-TEN® lattice towers. In early 2020, PPL Electric initiated a second more robust evaluation of the COR-TEN® lattice towers to determine the full extent of the deterioration on the transmission system. The details of this analysis are more fully detailed in Attachment 1 – Necessity Statement.

28. The results of the 2020 inspection program again confirmed the severity of deterioration identified during the 2019 inspection program, as follows:

- Over 90% of the joints showed visible pack-out in the connections, which is anticipated to worsen over time.
- The protective patina needed to protect the steel from corrosion did not properly develop at numerous members resulting in section-loss across the entire structure.
- Pack-out damage was typically more prevalent on lower sections of the tower except for some specific attachment points where severe pack-out was observed on higher sections.
- Structural damage was found on several members from pack-out that ruptured bolts and split/deformed members.

29. Finally, in December 2023, PPL Electric contracted RTR Energy Solutions, Inc. (“RTR”) to perform a condition assessment of the Mountain-Jenkins-Stanton Transmission Lines. The details of the RTR December 2023 Assessment are set forth in Attachment 1 – Necessity Statement. The assessment revealed that 94% (45 of 48) of the COR-TEN® lattice towers on the Mountain-Stanton/Mountain-Jenkins Double Circuit line section were classified as severe. Additionally, 94% (34 of 36) of the COR-TEN® lattice towers on the Mountain-Jenkins/Jenkins-Stanton Double Circuit line section were classified as severe. Finally, 93% (14 of 15) COR-TEN® lattice towers on the Mountain-Stanton/Jenkins-Stanton Double Circuit line section were also classified as severe. Meanwhile, none of the COR-TEN® lattice towers were classified as mild.

30. The majority of pack rust observed on each structure was found in the lower sections of the post leg where horizontal and diagonal members are bolted to the post leg. This assessment shows that the asset health conditions observed in the system-wide assessment are being exhibited on the specific structures targeted for replacement by the Project.

31. Based on the results of the inspection programs described above, it is clear that the issue with COR-TEN® lattice towers has accelerated the deterioration of these structures and has brought the assets to the end of their service life much sooner than would have been anticipated. At more than 50 years of age the COR-TEN® lattice towers that comprise the Mountain-Jenkins-Stanton 230 kV Transmission Lines have exceeded their useful life and can no longer be relied upon to safely operate as designed.

32. Furthermore, these asset health concerns are particularly important as the Mountain-Jenkins-Stanton 230 kV Transmission Lines are critical components of PPL Electric's Bulk Transmission System and are required to serve local load to several critical customer facilities.

33. If the Mountain-Stanton/Jenkins-Stanton Transmission Line were to fail, the next contingency could be the loss of Stanton–Summit 3 & 4 230kV Transmission line. This will result in up to 176 MW of load drop resulting in approximately 31,000 customers losing service. Transmission customers such as Pope & Talbot and Schott Glass will be impacted by this outage. This would result in all PPL Electric distribution substation loads sourced from Stanton 230/69kV Substation being removed from service.

34. If the Mountain-Stanton/Mountain-Jenkins Transmission Line were to fail, the next contingency could be the loss of the double circuit Mountain–Susquehanna 10 and Susquehanna–

Mountain 230kV Transmission lines resulting in a load drop of up to 180 MW at Mountain substation. This would result in approximately 62,700 UGI Electric customers losing service.

35. If the Mountain-Jenkins/Jenkins-Stanton Transmission Line were to fail, the next contingency could be the loss of Palooka–Jenkins 230kV Transmission line. This will result in up to 191 MW of load drop resulting in approximately 36,000 customers losing service. Transmission customers such as Ball Corp, Wyoming Valley Mall and Chamberlain will be impacted by this outage. This would result in all PPL Electric distribution substation loads sourced from Jenkins 230/69kV Substation being removed from service.

36. Furthermore, as the topic of severe weather patterns becomes increasingly relevant, there is a need to consider how changing weather patterns will impact the reliability of the existing COR-TEN® lattice structures. Over the last 20 years, PPL Electric has seen a trend of increasing storms per year within the PPL Electric service territory. With each storm comes more exposure to extreme precipitation and wind events. If a tower is structurally compromised due to COR-TEN® pack-out and section loss, that wind event creates an increased risk of structural failure. With projected increases of more frequent and intense heat waves over the next century in the Northeast in 2021, the occurrence of more severe wind and precipitation events is expected to rise as well. This is evident in the storms associated with Hurricane Ida that hit the Northeast recently, as a storm of that strength would have been rare decades ago. Due to drastic weather pattern changes, it is imperative to address the COR-TEN® structures in the safest and most reliable way to protect against the pack rust issue in the joints of the structures and guard the transmission system from catastrophic failures of COR-TEN® towers.

37. At the October 2020 PJM TEAC meeting,⁹ PPL Electric presented its plan to address COR-TEN® needs on the 230 kV system. As part of this plan, PPL Electric also shared the need with PJM stakeholders to address COR-TEN® towers on the Mountain-Jenkins-Stanton 230 kV Transmission Lines [need # PPL-2020-0010 (S2371) and PPL-2020-0011 (S2372)]. The need # PPL-2020-0010 and PPL-2020-0011 will be addressed by the Project under supplemental projects S2371 and S2372, which will be completed at an estimated cost of \$72.9 million. As presented at the PJM TEAC meeting,¹⁰ PPL Electric determined that remediation of the towers was not cost effective over the life of the asset and removal of the circuits was infeasible due to an approximate 365 mega-watt (“MW”) load drop.

B. THE PROPOSED PROJECT

38. In order to resolve the identified COR-TEN® lattice tower health condition, PPL Electric proposes to rebuild the existing Mountain-Jenkins-Stanton 230 kV Transmission Lines. All the COR-TEN® lattice structures as well as the conductors and associated hardware at the 99 locations will be replaced.

39. The proposed Project will address the asset health needs associated with COR-TEN® lattice tower replacement, as well as improve overall reliability, safety, and system resiliency. It will also address the above-identified reliability needs. With respect to the COR-TEN® asset health condition, the Project will immediately and fully resolve the deteriorated condition of the existing structures on a long-term basis by removing the existing COR-TEN® lattice towers and replacing them with steel monopoles. By rebuilding these structures, PPL Electric will resolve the existing COR-TEN® issue and avoid the possibility of the issue worsening

⁹ Refer to slides 21 through 24 at <https://www.pjm.com/~media/committees-groups/committees/teac/2020/20201006/20201006-item-09-ppl-supplemental.ashx>

¹⁰ Refer to slides 27 and 28 at <https://www.pjm.com/~media/committees-groups/committees/teac/2020/20201006/20201006-item-09-ppl-supplemental.ashx>

and/or recurring with respect to these structures and developing into both a reliability and public safety issue.

40. Importantly, as explained in Attachment 1 – Necessity Statement, the Project as proposed also avoids the additional costs and uncertainties surrounding the alternative remediation solution contemplated PPL Electric. As noted therein, PPL Electric evaluated and rejected the remediation alternative because it carries substantial uncertainties regarding its immediate and long-term effectiveness to address the subject COR-TEN® lattice lowers. There are few, if any, other examples of fully remediating substantially deteriorated COR-TEN® towers which PPL Electric could review to benchmark the effectiveness of this alternative against. Although remediation could potentially extend the life of the structures, it would, at a minimum, require that the remediation work be re-evaluated and potentially repeated every ten years after the initial remediation. In addition, the initial cost of remediation could be substantially greater than anticipated, and the cost of repeated remediation would result in additional O&M expense. The Project as proposed avoids these additional costs and uncertainties and proposes to rebuild the transmission lines in a cost-efficient manner to ensure the continued provision of safe and reliable service.

41. The approximate cost of the entire transmission line rebuild Project is \$72.9 Million. On a total cost of service basis, the Proposed Solution is approximately 87% of the cost of Alternative 1 (replacing each of the existing structures) on a 45-year basis and 90% of the cost of Alternative 1 on 75-year basis. In addition, on a total cost of service basis, the Proposed Solution is approximately 97% of the cost of Alternative 2 (remediating the existing structures) on a 45-year basis and 62% of the cost of Alternative 2 on 75-year basis.

III. HEALTH AND SAFETY

42. The proposed lines will not create any unreasonable risk of danger to public health or safety. The proposed lines will be designed, constructed, operated, and maintained in a manner that meets or surpasses all applicable National Electrical Safety Code (“NESC”) minimum standards and all applicable legal requirements. Descriptions of the NESC standards, PPL Electric’s design criteria, and PPL Electric’s safety practices are provided in Attachment 4 to this Letter of Notification.

43. Attachment 4 accompanying this Letter of Notification also explains PPL Electric’s standards for Magnetic Field Management. Ground clearances for the proposed Project will be increased between approximately 3.0 and 7.0 feet higher than those required by the NESC standard in order to reduce the magnetic field exposure. The proposed rebuild of Mountain-Jenkins-Stanton 230 kV Transmission Lines will continue to allow for double-circuit operation, which will allow for reverse phasing. A reduction in magnetic field exposure is anticipated due to the higher ground clearances and reverse phasing.

IV. DESCRIPTION OF THE RIGHT-OF-WAY

44. The rebuilt double-circuit Mountain-Jenkins-Stanton 230 kV Transmission Lines will be on the same structure alignment and in the same right-of-way (“ROW”) as the existing transmission lines. The existing ROW ranges in width from 150 to 325 feet wide. The Project involves removal of 109 existing structures of which 108 will be replaced and constructed entirely within the existing ROW or on PPL Electric’s Mountain, Jenkins, and Stanton Substation properties. *See* 52 Pa. Code § 57.72(d)(1)(i). A network of existing access roads or temporary roads will be utilized during construction of the Project. In addition, the facilities associated with the Project will be constructed upon the same structure alignment as the existing facilities. PPL Electric does not require any additional ROW for the construction of the Project. An aerial map

is provided at the end of Attachment 3 to this Letter of Notification, which depicts the proposed line and associated structures.

45. New structures will be located in close proximity to existing structures where it is reasonably practical to do so. Where structures will be substantially relocated, PPL Electric will discuss the proposed structure locations with the respective property owners. Additionally, the existing number of structures on each parcel will not increase, and no new structures will be added to properties that do not currently have a structure. Because the new pole locations are generally similar to the original locations, PPL Electric does not anticipate any objections.

46. As explained in Attachment 2, existing COR-TEN® lattice tower structures range in height from between approximately 101 and 172 feet with an average structure height of approximately 137 feet. The proposed monopole structures for the Mountain-Jenkins-Stanton 230 kV Transmission Lines will range in height from between approximately 105 and 170 feet with an average structure height of approximately 138 feet.

47. Two aerial plot plans are provided at the end of Attachment 1 to this Letter of Notification. Figure 1-2 depicts the location of the existing transmission facilities associated with this Project. Figure 1-3 depicts the location of the proposed transmission facilities associated with this Project.

V. LAND USE AND ENVIRONMENTAL EVALUATION

48. As explained above, construction of the proposed Project will take place entirely within existing rights-of-way. Therefore, it is anticipated that the proposed Mountain-Jenkins-Stanton 230 kV Transmission Lines will have minimal incremental impacts on land use in the area.

49. PPL Electric will use previously established access roads or temporary roads for construction to the extent practical to further reduce interference with existing uses and minimize

land use impacts. A detailed description of the route of each individual component of the Project can be found in Attachment 3.

50. PPL Electric evaluated the existing land uses on the PPL Electric owned properties, within the existing ROW, and within 0.25 mile (1,320 feet) of the Project centerline (“Project Area”). This broader Project Area was reviewed to provide a sense of the landscape in which the Project is located. Based on review of the 2019 National Land Cover Data (“NLCD”), land use in the Project Area is approximately 60% forest with the remaining 40% comprised of development, mixed residential, open space and pasture lands.

51. The proposed Project will not affect any national parks, state parks, local parks, or natural landmarks. Along the Mountain-Stanton/Mountain-Jenkins portion of the Project, the Back Mountain Trail Easement will be spanned by the Project near S.R. 309. The easement is a conserved land that is part of the Anthracite Scenic Trail Association in Kingston Township. Adjacent to the Project, the Pinchot State Forest’s Harvey’s Creek Tract is located approximately 0.5 miles south of the Mountain Substation. An additional property owned by Pinchot State Forest as well as the Frances Slocum State Park are located approximately 1 mile northwest of the Mountain-Stanton/Mountain-Jenkins portion of the Project.

52. Two communication towers are located in the Project Area but neither will be affected by the proposed Project. The Project crosses three railroads. The West Pittston Branch is spanned by the Project twice approximately 2.5 miles north of Jenkins Substation and the Wilkes Barre Industrial Track is spanned by the Project just south of the Susquehanna River, approximately 1.75 miles north of the Jenkins Substation. One gas pipeline crosses the Project two separate times. The Transcontinental Gas Pipeline crosses the Mountain-Stanton portion of the Project near Wyoming and again near Laflin on the Jenkins-Stanton section of the Project. PPL

Electric will coordinate mitigation measures where necessary, as deemed appropriate by the pipeline owner(s)/operator(s).

53. The closest active airport relative to the Project Area is the Wilkes-Barre Wyoming Valley Airport, which is located along Route 11 in Wyoming and approximately 1 mile from multiple project segments. The Wilkes-Barre Scranton International Airport is located approximately 4.25 miles to the southeast of the Stanton Substation. PPL Electric does not anticipate any interference with airport operations because the Project is located in an area where there are existing electrical facilities. However, PPL Electric will comply with any applicable requirements of the Federal Aviation Administration and the Pennsylvania Department of Transportation, Bureau of Aviation.

54. Along the Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line section of the Project, a Federal Emergency Management Agency (“FEMA”) Flood Buyout easement will be spanned by the Project south of the Susquehanna River crossing, 1.75 miles from the Jenkins Substation. Additionally, Plains Township Municipal Park is adjacent to the Project approximately 0.5 miles east of the Jenkins Substation.

55. PPL Electric conducted an online review of the Project Area and surrounding landscape through the Pennsylvania Historical and Museum Commission (“PHMC”) State Historic and Archaeological Resource Exchange site. State Historic Preservation Office (“SHPO”) eligible and listed structures and districts that were found within or close to the Project Area are listed in Table 3-1 in Attachment 3 to this LON.

56. PPL Electric is in the initial stage of coordination with the PHMC for the proposed Project. This coordination is required to receive permits prior to constructing the Project and will be conducted in the near future. PPL Electric does not anticipate any impacts to SHPO listed or

eligible structures or districts. PPL Electric will perform any reviews and field survey/sampling work required by the PHMC to avoid, minimize, and mitigate impacts to archaeological or historic architectural resources that may be located within the Project Area.

57. No unique geological, scenic, or natural areas are located within the Project Area, according to the Pennsylvania Department of Conservation and Natural Resources (“PDCNR”).

58. Erosion and Sedimentation (“E&S”) control plans will be developed and implemented for the Project to minimize the displacement of soils. These plans will require prior approval from the local county conservation district(s). National Pollutant Discharge Elimination System (“NPDES”) permits will also be required from the Pennsylvania Department of Environmental Protection (“PADEP”) as needed. During construction, PPL Electric will adhere to all conditions specified in the NPDES permit. Impacts to local soil resources are anticipated to be minimal.

59. The existing transmission lines span several National Hydrography Dataset waterways that will remain in place after the Project construction activities have occurred. Review of the USGS mapping website indicated that the Project will aurally span six named streams which are listed in Table 3-2. The Project Area is located within the Abrahams Creek watershed (USGS Hydrologic Unit Code (“HUC”) 020501070201), the Brown Creek-Susquehanna River watershed (HUC 020501070205), the Laurel Run-Mill Creek watershed (HUC 020501070202), the Obendoffers Creek-Susquehanna River watershed (HUC 020501061409), and the Toby Creek watershed (HUC 020501070203). All of these watersheds generally flow to the south towards the Susquehanna River except for the Laurel Run-Mill Creek watershed that flows to the west also to the Susquehanna River.

60. The streams in the Project Area have a few different PADEP Chapter 93 Designated Use Stream Classifications. The Susquehanna River has a designation of Warm Water Fishes (“WWF”), Migratory Fishes (“MF”). Toby Run has a PADEP Chapter 93 Designated Use Stream Classification of Trout Stocking Fishes (“TSF”), MF. Abrahams Creek, Brown Creek, Obendoffers Creek, and Hicks Creek have a PADEP Chapter 93 Designated Use Stream classification of Cold Water Fishes (“CWF”), MF. The Pennsylvania Fish and Boat Commission (“PFBC”) has designated Obendoffers Creek as a Class A Trout Stream and Toby Creek, an unnamed tributary (“UNT”) to Abrahams Creek, and Obendoffers Creek as Natural Reproduction Trout Streams, which may require seasonal restrictions for any work planned in these streams. No direct impact to these stream features is anticipated by the Project activities.

61. Based on review of the U.S. Fish and Wildlife Service’s (“USFWS”) National Wetlands Inventory (“NWI”), the Project crosses two Palustrine, Excavated (PUBFx, PUSCx) freshwater ponds and a Palustrine Emergent *Phragmites Australis* Temporarily Flooded (PEM5A) wetland. No impacts to these NWI features are anticipated by the proposed Project activities.

62. The NWI only provides a general overview of the potential wetlands that may be located within an area. For federal and state permitting purposes, the wetlands and waterways within the Project area will be delineated, surveyed, and illustrated according to regulatory standards. This information will be used to minimize any identified wetland impacts where feasible. Additionally, PPL Electric will avoid impacts to wetlands where possible by aerially spanning these features.

63. In addition, for Luzerne County, Pennsylvania was obtained through the FEMA Flood Map Service Center website and analyzed for 100-year floodplains within the Project Area and surrounding landscape. Based on review of this data, the Project spans the FEMA 100-year

floodplain located near Toby Creek, an adjacent UNT to Toby Creek, Abrahams Creek, Obendoffers Creek, Hicks Creek, and the Susquehanna River. The spanned 100-year floodplains crossed by the Project are categorized as either Zone A or Zone AE. Zone A areas are subject to inundation by the 1-percent-annual-chance flood event using approximate methodologies and no Base Flood Elevations (“BFE”) determined. Zone AE areas are subject to inundation by the 1-percent-annual-chance flood event using detailed methods and with BFEs established for the location. The Mountain-Stanton/Mountain-Jenkins project alignment will span a FEMA floodway area associated with Toby Creek. Several structures along the Mountain-Jenkins/Jenkins-Stanton project alignment are located within the floodway of the Susquehanna River. No impacts to the floodplain areas are anticipated by the proposed Project activities. Coordination with PADEP may be required regarding the structures located in the FEMA floodways.

64. Vegetative cover in the Project Area consists almost entirely of forested lands. The remaining areas consist of routinely maintained ROW corridors, riparian habitats and vegetation associated with residential/commercial development. The existing ROW areas for the transmission lines have previously been cleared of woody vegetation and no extensive tree clearing is anticipated. If vegetation management is required within the existing ROW, PPL Electric will apply its “Specifications for Transmission Vegetation Management LA-79827” to minimize potential impacts.

65. Based on review of the *Natural Areas Inventory of Luzerne County, Pennsylvania*, published by The Nature Conservancy in 2006, the Project extends through two Pennsylvania Natural Heritage identified natural areas. Near the Stanton Substation, the Project crosses into the Susquehanna River at Duryea Natural Area which consists of aquatic and riparian habitats along the Susquehanna River corridor that supports two species of concern. Close to the Jenkins

Substation, the Project extends through the Pittston Rookery Natural Area as the Project crosses the Susquehanna River. Natural areas identified in these documents generally focus on sites that provide habitat conditions for threatened and endangered plant or animal species.

66. PPL Electric completed a Pennsylvania Natural Diversity Inventory (“PNDI”) for the Project on April 11, 2023. The PNDI reviews evaluate the databases of the United States Fish and Wildlife Service (“USFWS”), Pennsylvania Fish and Boat Commission (“PFBC”), Pennsylvania Game Commission (“PGC”), and the PDCNR.

67. For all three areas, the PFBC recommended a conservation measure for work that will be conducted within the occupied range of the timber rattlesnake (*Crotalus horridus*). Per PFBC recommended measures, a snake biologist will be on site during construction to re-locate any snakes that are found along the project corridor. For the Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Line and Mountain-Stanton/Jenkins-Stanton Double-Circuit Line sections, the PFBC also recommended a conservation measure to maintain a natural flow regime and high water quality which are important to maintaining habitats occupied by rare fish and mussels. The recommendation includes avoiding instream construction work to the maximum extent practicable and that if instream work is anticipated, then a mussel salvage using a qualified mussel surveyor to relocate mussels from the area of direct impact is recommended. No instream work is anticipated for the Project.

68. Along this section of the Project, the PGC also reported that a threatened sensitive species may be located in the vicinity of the Project and further review is necessary to resolve potential impacts. Further coordination with the PGC concluded that no impacts to this species is anticipated.

69. PPL Electric will continue to consult with the jurisdictional agencies regarding potential impacts to protected species, complete all required surveys, obtain all necessary approvals, and permits for Project construction, and comply with all conditions placed on those permits.

VI. NOTICE

70. PPL Electric has reached out to residents located immediately adjacent to PPL Electric's fee owned parcels and owners of properties that are crossed by the Mountain-Jenkins-Stanton 230 kV Transmission Lines. Copies of the Letter of Notification will be served upon landowners in accordance with 52 Pa. Code § 57.72(d)(3). A list of the landowners impacted by this project is provided in Attachment 5.

71. PPL Electric has provided information regarding the Project to representatives of Courtdale Borough, Exeter Borough, Exeter Township, Jenkins Township, Kingston Township, Larksville Borough, Plains Township, Swoyerville Borough, West Wyoming Borough, and Wyoming Borough, in Luzerne County, Pennsylvania. These entities have not objected to the proposed Project. Copies of this Letter of Notification will be served on the governmental agencies, municipalities, and other public entities and organizations in accordance with 52 Pa. Code § 57.72(d)(3). A list of these entities and organizations is also provided in Attachment 5.

VII. LETTER OF NOTIFICATION

72. PPL Electric is proceeding by means of a Letter of Notification, instead of a full Application, pursuant to the Commission's regulations at 52 Pa. Code § 57.72(d)(1)(i).

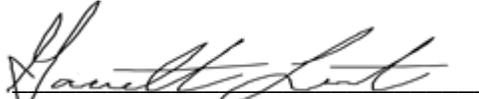
73. The proposed Project qualifies for use of a Letter of Notification because it will be located entirely on an existing transmission line right-of-way, and the size, character design or configuration of the proposed transmission line will not substantially alter the right-of-way.

74. This Letter of Notification is filed on the date set forth below. As provided in 52 Pa. Code § 57.72(d)(5), the Commission will review and, by order, approve or disapprove this Letter of Notification. If the Commission approves this Letter of Notification, the proposed Project will be constructed as proposed herein without the formal application process set forth at 52 Pa. Code §§ 57.71, *et seq.*

VIII. CONCLUSION

WHEREFORE, PPL Electric Utilities Corporation respectfully requests that the Pennsylvania Public Utility Commission approve the proposed Project located in Luzerne County, Pennsylvania, that is explained above and in the Attachments hereto, by no later than April 1, 2025.

Respectfully submitted,



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**PPL ELECTRIC
ATTACHMENT 1**

MOUNTAIN-JENKINS-STANTON 230 kV COR-TEN® REBUILD PROJECT

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1.0 INTRODUCTION

PPL Electric Utilities Corporation (“PPL Electric” or the “Company”) is requesting Pennsylvania Public Utility Commission (“PUC” or “the Commission”) approval to rebuild three existing sections of double-circuit 230 kilovolt (“kV”) transmission lines (known as the “Mountain-Jenkins-Stanton 230 kV Transmission Lines”) connecting the UGI Utilities, Inc. (“UGI”) owned Mountain 230-69 kV Substation (“Mountain Substation”) to the PPL Electric owned Jenkins 230-69 kV Substation (“Jenkins Substation”) and Stanton 230-69 kV Substation (“Stanton Substation”) (collectively the “Project”). The Mountain-Jenkins-Stanton 230 kV Transmission Lines and the three interconnected substations are located in Luzerne County, Pennsylvania.¹ The one-line diagram of the existing system configuration is provided as **Figure 1-1** and includes the following segments:

- The Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line that extends from the Mountain Substation to an intersection with the Mountain-Jenkins/Jenkins-Stanton 230 kV double-circuit line.
- The Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line that extends from the Jenkins Substation to an intersection with the Mountain-Stanton/Mountain-Jenkin 230 kV double-circuit line.
- The Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line that extends from this intersection point to the Stanton Substation.

This Project is required to address reliability concerns related to the deteriorated condition of the COR-TEN® lattice towers on the double-circuit 230 kV transmission lines. In addition, the Project is also required to comply with:

- The Consolidated Transmission Owners Agreement (“TOA”) Rate Schedule - FERC No. 42 (FERC ER10-2713-000), which requires transmission systems to “[b]e kept in place and maintained in good operating condition in accordance with Good Utility Practice and principles, guidelines and standards of the applicable Regional Reliability Council and NERC.”

¹ For a complete list of municipalities and counties crossed by the Project, please refer to the Letter of Notification, Attachment 5.

The Project is necessary for PPL Electric to avoid violating its obligations under the TOA to maintain its transmission facilities in good operating condition and avoid public safety concerns caused by failed assets. The Project is one of several essential PPL Electric projects designed to address a system-wide concern related to the structural reliability of COR-TEN® lattice towers on its bulk transmission system. As explained below, the existence of “pack-out rust”² in many of the joints of the subject lattice towers diminishes structural integrity and increases the risk of system failures that could negatively impact public safety and affect approximately 67,000 PPL Electric customers and 62,700 UGI Electric customers. The Project is necessary to avoid these risks and provide the best solution to immediately address the identified asset health issues on a long-term basis.

Moreover, for PPL Electric’s transmission facilities to be considered in good operating condition, they must be maintained in a manner consistent with the standards of the North American Electric Reliability Corporation (“NERC”), Reliability First Corporation, and Good Utility Practice as defined by the TOA.

Subject to the Commission’s approval, construction will begin in May 2025 to support an in-service date of November 30, 2028. PPL Electric will continue to own, operate, and maintain the rebuilt 230 kV transmission lines. The total estimated cost of this Project, as described below, is approximately \$72.9 million, and the cost for the Project will be paid by PPL Electric.³

2.0 BACKGROUND

PPL Electric is responsible for providing transmission assets and maintaining them in an adequate, efficient, safe, reliable, and reasonable manner to meet the needs of the electric system and its

² “Pack-out rust” is a form of localized corrosion typical of steel components that develop a crevice into an open atmospheric environment, which results in rust packing between conjoined steel components. As described in Attachment 1, pack-out rust accelerates the deterioration of asset health and can result in shearing off bolts, loss of structural integrity, members disconnecting from lattice towers, and tower failure.

³ The estimated cost was developed using averages of recent costs for similar projects and without an in-depth analysis of field investigation. The cost is subject to change as the constructability of the Project, sequence of construction, and other factors that may affect cost are identified and analyzed as the Project progresses.

customers' expectations. To achieve this, PPL Electric applies its Transmission Asset Management Procedure as part of its system performance and condition assessment process. These performance and condition assessments identify system needs and prioritize projects based on several variables such as equipment age, condition, maintenance schedule, and impact on system reliability and asset performance to ensure a reliable electric grid and service to its customers.

The transmission system is the backbone of the electric grid. Failure to maintain the system in accordance with Good Utility Practice and reliability practices and standards can decrease overall transmission system reliability and increase the risk of customer outages.

3.0 TRANSMISSION SYSTEM PLANNING PROCESS

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

Robust transmission planning enables the transmission system to supply electricity to all customer loads in a reliable and economical manner. This system planning process ensures that both the Bulk Electric System ("BES")⁴ and non-Bulk Electric System (non-BES)⁵ are planned and constructed so that:

- They can accommodate forecasted system flows during summer and winter peak load;
- They can adequately serve each customer's need regarding capacity, voltage, and reliability for all load levels throughout the daily load cycle;
- They can sustain probable contingencies and disturbances with minimal customer service interruptions; and

⁴ Includes transmission facilities operated at voltages of 100 kV or higher.

⁵ Includes transmission facilities operated at voltages less than 100 kV.

- They are in conformance with NERC, PJM Interconnection, LLC (“PJM”), and the Transmission Owner’s reliability criteria for all normal and emergency operating conditions.

PJM is a Federal Energy Regulatory Commission (“FERC”)-approved Regional Transmission Organization (“RTO”) charged with ensuring the reliability of the electric transmission system under its functional control (100 kV and above) and coordinating the movement of electricity in all or parts of thirteen states and the District of Columbia, including Pennsylvania. To ensure reliable transmission service, PJM prepares an annual Regional Transmission Expansion Plan (“RTEP”)⁶ to identify system reinforcements that are required to, among other things, meet the NERC Reliability Standards, PJM reliability planning criteria, and Transmission Owner reliability criteria. Prior to submitting the project to PJM, PPL Electric evaluated whether the line could be retired as one of the functional alternatives. Based on this analysis, it was determined that the line could not be retired without causing substantial issues on the system. As such, the existing double-circuit Transmission Lines remain in PJM’s planning studies and are assumed to remain in-service and fully operational. Therefore, PPL Electric focused its efforts on identifying the most appropriate way to address the structural deficiencies.

PPL Electric’s Transmission Asset Management Procedure involves identifying system needs and determining the best available solution to address those needs. This process includes asset evaluation, asset condition and system risk assessments, analysis of alternative solutions, and project initiation and scheduling. System needs are identified based on the overarching goals of reducing outage frequency and duration, improving system reliability, decreasing system maintenance cost, and maintaining operational flexibility to ensure safe and reliable electric service of the transmission system and to our customers.

⁶ PJM’s RTEP process is currently set forth in Schedule 6 of PJM’s Amended and Restated Operating Agreement (“Schedule 6”). Schedule 6 governs the process by which PJM’s members rely on PJM to prepare an annual regional plan for the enhancement and expansion of the transmission facilities to ensure long-term, reliable electric service consistent with established reliability criteria. In addition, Schedule 6 addresses the procedures used to develop the RTEP, the review and approval process for the RTEP, the obligation of transmission owners to build transmission upgrades included in the RTEP, and the process by which interregional transmission upgrades will be developed.

When transmission owning utilities (including PPL Electric) set up PJM as an RTO, they agreed to bind themselves to maintaining their existing transmission systems using Good Utility Practice. The TOA is an agreement among (1) individual Transmission Owners operating within the PJM Region and (2) between the Transmission Owners and PJM. The TOA facilitates the planning and operation of the Transmission Grid within the PJM region and establishes the rights and responsibilities of each party to the TOA. Section 4.6 of the TOA requires that transmission systems “[b]e kept in place and maintained in good operating condition in accordance with Good Utility Practice and principles, guidelines and standards of the applicable Regional Reliability Council and NERC.” This Project is required to fulfill PPL Electric’s obligations under the TOA.

4.0 THE NEED FOR THE PROJECT

4.1 Existing System

The Project is composed of three transmission line segments that connect the Mountain, Jenkins, and Stanton Substations. These specific transmission line segments include:

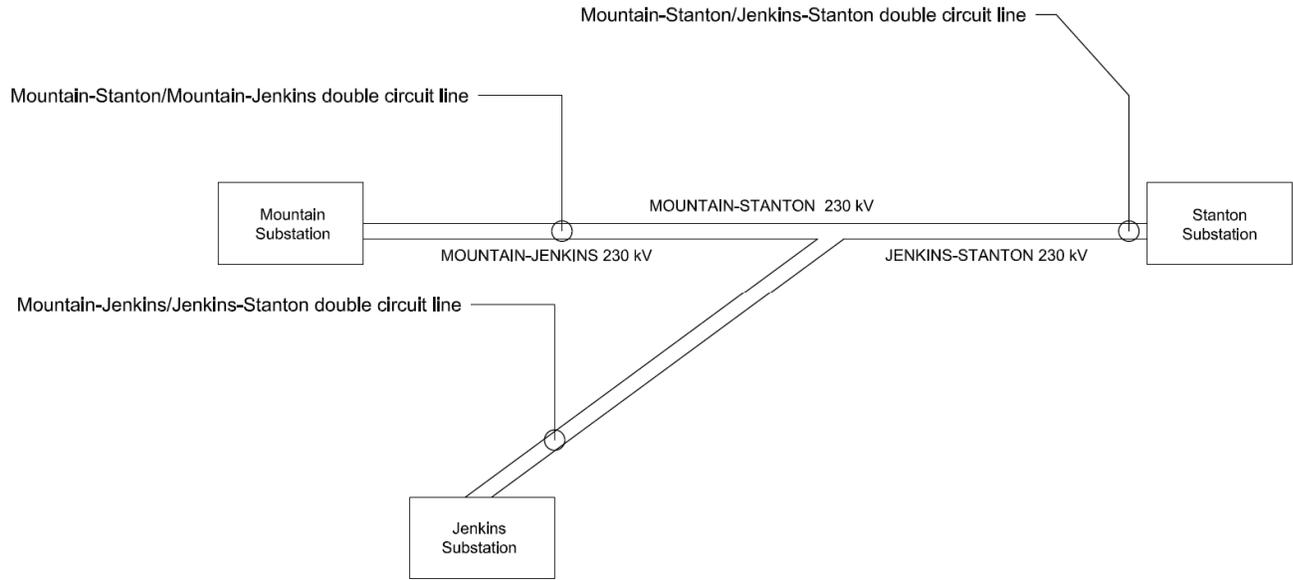
- The Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line that extends from the Mountain Substation to an intersection with the Mountain-Jenkins/Jenkins-Stanton 230 kV double-circuit.
- The Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line that extends from the Jenkins Substation to an intersection with the Mountain-Stanton/Mountain-Jenkin 230 kV double-circuit line.
- The Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line that extends from this intersection point to the Stanton Substation.

As illustrated in **Figure 1-1**, each line segment is configured as a double-circuit throughout the Project alignment. The Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line to be replaced is approximately 9.8 miles long and supported by 48 COR-TEN® lattice structures. The Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line to be replaced is approximately 5.8 miles long and supported by 36 COR-TEN® lattice structures. The Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line to be replaced is approximately 2.7 miles long and supported by 15 COR-TEN® lattice structures. The total number

of COR-TEN® lattice towers to be replaced is 99. These towers are designed and being used for double-circuit 230 kV operation.

The one-line diagram of the existing system configuration is provided below:

Figure 1-1: One-Line Drawing of Project



The double-circuit Mountain-Jenkins-Stanton 230 KV Transmission Lines are in PPL Electric’s Central Region and are part of a larger 230 kV transmission network that connects generation in this region to load throughout PPL Electric and the rest of PJM’s footprint. This 230 kV network includes the Mountain-Susquehanna 230 kV, Susquehanna T10–Mountain 230 kV, Stanton–Summit 3 & 4 230 kV and Summit–Lackawanna 230 kV Transmission Lines, which all support bulk power flow and feed various 230-69 kV substations in these regions.

The asset health concerns associated with the Mountain-Jenkins-Stanton 230 kV Transmission Lines are important as they are a critical component of PPL Electric’s Bulk Transmission System and are required to serve local load to several critical customer facilities. If these transmission lines were to fail due to COR-TEN® issues, the following reliability issues would occur:

A) Failure of the Mountain-Stanton/Jenkins-Stanton Transmission Line:

- The load at Stanton 230-69 kV Substation is served by the double circuit Mountain–Stanton and Jenkins–Stanton 230kV Transmission Lines and the Stanton–Summit

3 & 4 230kV Transmission Lines. Failure of the double circuit Mountain–Stanton, Jenkins–Stanton 230kV transmission line will put the Stanton Substation load at risk for the next contingency. The next contingency could be the loss of Stanton–Summit 3 & 4 230kV Transmission line. This will result in up to 176 mega-watt (“MW”) of load drop resulting in approximately 31,000 customers losing service. Transmission customers such as Pope & Talbot and Schott Glass will be impacted by this outage. This would result in all PPL Electric distribution substation loads sourced from Stanton 230/69kV Substation being removed from service.

B) Failure of the Mountain-Stanton/Mountain-Jenkins 230 kV Transmission Line:

- The load at UGI owned Mountain 230-69 kV Substation is served by the double circuit Mountain–Stanton and Mountain–Jenkins 230kV Transmission Lines and the double circuit Mountain–Susquehanna 10 and Susquehanna–Mountain 230kV Transmission Lines. Failure of the double circuit Mountain–Stanton and Mountain-Jenkins 230kV transmission lines will put Mountain Substation load at risk for the next contingency. The next contingency could be the loss of the double circuit Mountain–Susquehanna 10 and Susquehanna–Mountain 230kV Transmission lines resulting in a load drop of up to 180 MW at Mountain substation. This would result in approximately 62,700 UGI Electric customers losing service.

C) Failure of the Mountain-Jenkins/Jenkins-Stanton 230 kV Transmission Line:

- The load at Jenkins 230-69 kV Substation is served by the double circuit Mountain–Jenkins and Jenkins–Stanton 230kV Transmission Lines and the Palooka–Jenkins 230kV Transmission Line. Failure of the double circuit Mountain–Jenkins and Jenkins–Stanton 230kV Transmission lines will put Jenkins Substation load at risk for the next contingency. The next contingency could be the loss of Palooka–Jenkins 230kV Transmission line. This will result in up to 191 MW of load drop resulting in approximately 36,000 customers losing service. Transmission customers such as Ball Corp, Wyoming Valley Mall and Chamberlain will be impacted by this outage. This would result in all PPL Electric distribution

substation loads sourced from Jenkins 230/69kV Substation being removed from service.

4.2 Project Need

This Project is needed to address asset health concerns that are being accelerated by increased incidences of pack-out rust associated with COR-TEN® lattice towers. The subject lattice towers had an expected life of 75 years and were installed in the early 1970s. The subsequent discovery of increased incidences of pack-out rust associated with COR-TEN® lattice towers has accelerated the rate at which these towers are expected to reach end-of-life, and, in some cases, the towers have deteriorated beyond the point of safe operation, which cannot be reasonably or cost-effectively remediated. Operating at 230 kV, the transmission lines are part of the Bulk Electric System and, as such, PPL Electric is required by the NERC to maintain the assets in a way that will ensure the reliability and stability of that system.

4.2.1 Asset Health

There are approximately 236 circuit miles containing COR-TEN® lattice structures or approximately 1,284 COR-TEN® lattice structures across PPL Electric's Transmission System that it currently anticipates will need to be addressed in order to resolve asset health concerns like those identified below.

Originally constructed in the early 1970s, the existing Mountain-Jenkins-Stanton 230 kV Transmission Lines have 99 weathering-steel COR-TEN® lattice structures spanning a total of approximately 18 miles. COR-TEN® lattice towers were commonly installed by the industry during this time because it was believed that the corrosion-resistant properties of weathering-steel would reduce future maintenance needs/costs.

In 2013, PPL Electric utilized a third-party contractor to perform an assessment of the COR-TEN® lattice structures on its 230 kV transmission lines under a steel structure capital maintenance program. The program evaluated the ground-line of the steel structures, performing minor excavation around the base of the structure and assessing the condition of the steel, and then applying a protective coating to the exposed steel. No joints or members above the base of the structure were included in this assessment. The assessment identified that 126 of 131 COR-TEN®

structures (96%) had one or more structure legs rated Condition C (poor) or Condition D (very poor). Of those 126 structures, 25 had one or more structure legs that were identified as “priority”, requiring immediate attention. In order to extend the life of the asset and ensure no failures at the ground line, the 25 structures identified as “priority” received maintenance repairs in 2014, which included post leg, diagonal and base shoe repairs. Protective coating was applied to the remaining 101 COR-TEN® structures that rated Condition C or D but were not identified as “priority”. However, these remaining structures face constant asset health concerns due to the presence of pack-out rust. Ongoing inspections conducted since 2014 have confirmed that these structures are continuing to degrade.

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

This now well-known inherent problem with COR-TEN® steel is also being seen in other infrastructure where two pieces of COR-TEN® steel overlap at joints, such as those present on lattice towers⁷ and other steel structures such as bridges. The presence of pack-out rust on COR-

⁷ See, e.g., *Application of Virginia Electric and Power Company d/b/a Dominion Virginia Power For approval and certification of Carson-Rogers Road 500 kV Transmission Line Rebuild under Va. Code § 56-46.1 and the Utility*

TEN® structures and its negative impacts on asset health have diminished the expected service life of these structures from 75 to 50 years. As these structures were installed approximately 50 years ago, they have effectively reached end-of-life⁸. No manufacturer’s warranty currently exists for remediation of the COR-TEN® lattice towers. After a reasonable investigation, PPL Electric is not aware of whether a manufacturer’s warranty was in existence at the time the structures were installed.

To better understand the heightened asset health concerns associated with COR-TEN® steel, PPL Electric contracted with independent, non-affiliated inspection companies to conduct evaluations of COR-TEN® lattice towers to determine the overall condition of these towers on the PPL Electric Transmission System in 2019. The 2019 evaluations included inspection of 15 randomly selected COR-TEN® lattice towers across the PPL Electric Transmission System by three separate contractors.⁹ Review of the three contractor reports revealed that over 90% of the joints at each structure exhibited visible pack-out rust in the connections. In addition, the review revealed that pack-out rust and section-loss was most prominent on the lower portions of the towers where there was higher likelihood of moisture build up. The contractors’ estimates to remediate each tower ranged from \$140,000 to \$240,000 per tower depending on the contractor’s proposed remediation approach and extent of remediation recommended. For the sake of any analysis associated with the remediation option, a cost of \$183,891 per structure was utilized, which is the average of the 3 remediation costs received from contractors.

Based on the prevalence of observed deterioration on the COR-TEN® lattice towers across the PPL Electric Transmission System and the estimated per-tower cost to rehabilitate, PPL Electric

Facilities Act, Va. Code § 56-265.1 et seq., Va. SCC Case No. PUE-2016-00078, at pp. 2-3, 9-10 (Hearing Examiner Report dated March 10, 2017) ; *Application of Virginia Electric and Power Company For approval and certification of Cunningham-Dooms 500kV Transmission Line Rebuild under Va. Code § 56-46.1 and the Utility Facilities Act, Va. Code § 56-265.1 et seq.*, Va. SCC Case No. PUE-2016-00020, at pp. 3-4 (Response of Dominion Virginia Power to Staff’s Supplemental Filing of March 30, 2017, filed April 13, 2017) (discussing the problems associated with “pack-out” rust on another utility’s COR-TEN® lattice tower structures).

⁸ New steel structures that will be installed under the Project have an anticipated service life of 75 years.

⁹ Each contractor was asked to inspect 5 structures and prepare an engineering analysis of their condition, proposed remediation approach and estimated costs to remediate the identified structural defects.

determined that a more thorough and strategic evaluation was needed to determine the full extent of the deterioration of COR-TEN® lattice towers across its system.

In early 2020, PPL Electric initiated a second, more robust evaluation of the COR-TEN® lattice towers to determine the full extent of the deterioration on the transmission system. PPL Electric’s Data Analytics Team developed a strategic approach that utilized advanced statistical analysis and modeling to comprehensively determine the overall condition of the COR-TEN® lattice towers in a cost-efficient manner. The statistical analysis determined that inspection of 192 randomly selected COR-TEN® towers would provide a statistically significant representation of all 1,284 COR-TEN® towers on the PPL Electric system with a 90% confidence level and 5% confidence interval. To assist with the analysis, PPL Electric contracted with AmpJack, an independent consultant, to complete an inspection of 192 randomly selected COR-TEN® towers and classify the observed condition.

The inspection of 192 randomly selected COR-TEN® towers performed by AmpJack included a field-based visual overhead inspection of each structure from the ground, taking measurements of pack-out at each joint and section-loss at each member on the lower section of each structure, visual observations of pack-out rust and section loss for the higher sections of the towers, and visual observations of the damage at attachment points. The measured values of each joint and member are rated according to guidelines provided by PPL Electric using both the measured and visual observations (A-Good, B-Fair, C-Poor, D-Severe and F-Priority). This approach is consistent with the method used by Osmose, an essential asset inspection service company, in grading steel structure corrosion in applications across the country. The results of the AmpJack overall structure ratings are summarized in **Table 1-1** below:

TABLE 1-1: Structure Rating Summary

Overall Structure Rating			
Class	Condition	Structure Count	Percent
A	Good	0	0.0%
B	Fair	0	0.0%
C	Poor	95	49.5%

D	Severe	88	45.8%
F	Priority	9	4.7%

Of the 192 COR-TEN® towers inspected by AmpJack as described above, 23 towers lie on the Mountain-Jenkins-Stanton 230 kV Transmission Lines. 82.6% of the inspected towers were categorized under Class C and 17.4% were categorized under Class D. The poor and severe grading of the towers on the Project alignment are due to an average of 11.3% section loss on the members and pack-out rust greater than 0.185 inches between the joints. The results of the AmpJack overall condition ratings on structures along the Project alignment are summarized in **Table 1-2** below. The confirmed presence of significant section loss and pack-out rust in 2020 signifies the rapid deterioration since 2013. The poor conditions exhibited by the towers of the Mountain-Jenkins-Stanton Transmission Line further support the need for the Project.

TABLE 1-2: Mountain-Jenkins-Stanton Structure Rating Summary

Overall Structure Rating			
Class	Condition	Structure Count	Percent
A	Good	0	0.0%
B	Fair	0	0.0%
C	Poor	19	82.6%
D	Severe	4	17.4%
F	Priority	0	0.0%

The results of the 2020 inspection program confirmed the severity of deterioration identified during the 2019 inspection program as follows:

- Over 90% of the joints showed visible pack-out rust in the connections, which is anticipated to worsen over time;
- The protective patina needed to protect the steel from corrosion did not properly develop in numerous members resulting in section-loss across the entire structure;

- Pack-out rust damage was typically more prevalent on lower sections of the tower except for some specific attachment points where severe pack-out rust was observed on higher sections; and
- Structural damage was found on several members from pack-out rust that ruptured bolts and split/deformed members.

The accelerated deterioration of the asset health of the COR-TEN® lattice towers that are the subject of the Project revealed by the 2019 and 2020 inspection programs has been further corroborated by a recent study prepared by RTR Energy Solutions, Inc. (“RTR”) in December 2023. RTR was contracted to perform condition assessments on the Mountain-Jenkins-Stanton Transmission Lines. The assessment consisted of all 99 COR-TEN® lattice towers on the Project alignment. The scope of the assessment included a visual inspection of each selected structure from the ground. Each joint of the structure was reviewed to determine if pack-out rust was present. The structure condition was noted as either Mild, Moderate or Severe using the following classification:

- **Mild** Condition Rating: <25% of total joints contain pack-out rust.
- **Moderate** Condition Rating: >25% & <50% of total joints contain pack-out rust.
- **Severe** Condition Rating: >50% of total joints contain pack-out rust.

A summary of the results of the inspection are represented in **Table 1-3, Table 1-4 and Table 1-5** below:

TABLE 1-3: Structure Condition Rating Summary: Mountain-Stanton/Mountain-Jenkins

Condition	Structure Count
Mild	0
Moderate	3
Severe	45
Total	48

TABLE 1-4: Structure Condition Rating Summary: Mountain-Jenkins/Jenkins-Stanton

Condition	Structure Count
Mild	0

Moderate	2
Severe	34
Total	36

TABLE 1-5: Structure Condition Rating Summary: Mountain-Stanton/Jenkins-Stanton

Condition	Structure Count
Mild	0
Moderate	1
Severe	14
Total	15

The majority of pack-out rust observed on each structure was found in the lower sections of the post leg where horizontal and diagonal members are bolted to the leg. However, pack-out rust was observed in joints all the way up some towers. Structures classified as Severe with significant amounts of pack-out rust present had visible bending on the flat edge of the joint that was originally bolted. The assessment revealed that 94% (45 of 48) of the COR-TEN® lattice towers on the Mountain-Stanton/Mountain-Jenkins Double Circuit line section were classified as severe. Additionally, 94% (34 of 36) of the COR-TEN® lattice towers on the Mountain-Jenkins/Jenkins-Stanton Double Circuit line section were classified as severe. Furthermore, 93% (14 of 15) of the COR-TEN® lattice towers on the Mountain-Stanton/Jenkins-Stanton Double Circuit line section were classified as severe. The assessment shows that the asset health conditions observed in the system-wide assessment are being exhibited on the specific structures targeted for replacement by the Project.

Based on the results of the inspection programs described above, the inferior performance of the protective patina on the COR-TEN® lattice towers have accelerated the deterioration of these structures and has brought the assets to the end of their service life much sooner than would have been anticipated. At roughly 50 years of age, the COR-TEN® lattice towers that comprise the Mountain-Stanton-Jenkins 230 kV Transmission Lines have exceeded their useful life and can no longer be relied upon to safely operate as designed. The proposed rebuild addresses the safety issues resulting from the presence of pack-out rust (e.g., structures failing due to deteriorated joints at the arms or legs). Shearing of bolts, members disconnecting from lattice towers, or complete

tower failure pose a major safety risk to both the public and PPL Electric employees. PPL Electric has determined it is appropriate to address these safety risks now, rather than later, to mitigate increasing asset health, system reliability and safety risks.

The current condition of the towers identified through the assessments identify a susceptibility to failure especially during extreme weather. As the topic of severe weather patterns becomes increasingly relevant, there is a need to take into consideration how changing weather patterns will impact the reliability of the existing COR-TEN® lattice structures. Over the last 20 years, PPL Electric has seen a trend of increasing storms per year within the PPL Electric service territory. With each storm comes more exposure to extreme precipitation and wind events. If a tower is structurally compromised due to COR-TEN® pack-out rust and section loss, that wind event creates an increased risk of structural failure. With projected increases of more frequent and intense heat waves over the next century in the Northeast, severe wind and precipitation events are expected to rise too. This is evident in the storms associated with Hurricane Ida that hit the Northeast in 2021, as a storm of that strength would have been rare decades ago. Due to drastic weather pattern changes, it is imperative to address the COR-TEN® structures in the safest and most reliable way to protect against the pack-out rust issue in the joints of the structures and guard the transmission system from catastrophic failures of COR-TEN® towers.

Any failure due to the condition of these assets will lead to unexpected outages on the Bulk Electric System, risking violations of NERC Reliability Standards. Violations result in monetary penalties that are determined based on the degree to which the compliance was not achieved, the entity size, and the duration of the violation. The penalties range from as low as \$1,000 to over \$1 million. A NERC violation can also directly cause or contribute to the Bulk Electric System instability, separation, or cascading failures. The rolling blackouts would impact both PPL customers and customers outside of the PPL service territory.

At the October 2020 PJM TEAC meeting,¹⁰ PPL Electric presented its plan to address COR-TEN® needs on the 230 kV system. As part of this plan, PPL Electric also shared the need with PJM

¹⁰ Refer to slides 21 through 24 at <https://www.pjm.com/~media/committees-groups/committees/teac/2020/20201006/20201006-item-09-ppl-supplemental.ashx>

stakeholders to address COR-TEN® towers on the Mountain-Jenkins-Stanton 230 kV Transmission Lines [need # PPL-2020-0010 (S2371) and PPL-2020-0011 (S2372)]. The need # PPL-2020-0010 and PPL-2020-0011 will be addressed by the Project under supplemental projects S2371 and S2372, which will be completed at an estimated cost of \$72.9 million. As presented at the PJM TEAC meeting,¹¹ PPL Electric determined that remediation of the towers was not cost effective over the life of the asset and removal of the circuits was infeasible due to a combined approximate 365 MW load drop.

5.0 ALTERNATIVES

PPL Electric evaluated three potential solutions to address the degrading health of the Mountain-Jenkins-Stanton 230 kV Transmission Lines. While solutions like Alternative 1 and Alternative 2 are available, they are not reasonable or feasible to address all the identified concerns. The following three alternatives were considered and compared based upon their ability to resolve the asset health conditions identified by PPL Electric and upon a 45-year and 75-year cost of service basis¹²:

- (1) Alternative 1 – Replace all structures on the Mountain-Jenkins-Stanton 230 kV Transmission Lines;
- (2) Alternative 2 – Remediate all structures on the Mountain-Jenkins-Stanton 230 kV Transmission Lines; and

¹¹ Refer to slides 27 and 28 at <https://www.pjm.com/~media/committees-groups/committees/teac/2020/20201006/20201006-item-09-ppl-supplemental.ashx>

¹² PPL Electric is providing this comparison based upon a 45-year cost of service basis, due to the Commission's routine data requests for a 45-year cost of service analysis in prior LON proceedings. PPL Electric notes that it does not utilize a stand-alone cost of service calculation for individual projects and does not prepare a cost of service analysis for rebuild projects in its regular course of business. However, PPL Electric has prepared this line-specific calculation in anticipation of data requests from the Commission. PPL Electric used its current transmission rate for these calculations and notes that it cannot predict what its transmission rate will be in the future. The Company's transmission rate, and the associated calculations, are subject to change. Furthermore, PPL Electric submits that it is reasonable and appropriate to consider the 75-year cost of service for this project, as the expected life of the steel structures at issue is 75 years.

- (3) Alternative 3 – Full Rebuild of the Mountain-Jenkins-Stanton 230 kV Transmission Lines. (“Proposed Solution”).

Importantly, the existing Mountain-Jenkins-Stanton double-circuit 230 kV Transmission Lines are presently in use and planned to continue to be in use to maintain the reliable and efficient operation of the transmission grid. Indeed, these existing transmission lines are included in PJMs transmission planning studies and are assumed to remain in-service and fully operational, asset retirement is not considered a feasible option.

5.1 Alternative 1 – Structure Replacement

The first alternative considered by PPL Electric to address the poor health condition of the weathering steel COR-TEN® lattice towers on these lines was to replace each of the lattice structures. This alternative would include replacing the existing weathering-steel lattice towers with new standard monopole structures. The estimated replacement cost is approximately \$500,192/structure. This option would also require PPL Electric to replace the conductors with new conductors in 2026 when the conductors have reached end-of-life at an additional \$322,011/structure. In addition, there would be ongoing Operations and Maintenance (“O&M”) costs for the remainder of the service life of the transmission lines, including more frequent inspections. Inspections to identify issues on the line not addressed through a rebuild would use a cycle of comprehensive visual inspections every 8 years and a supplemental, aerial visual inspection every 4 years in between. As shown in Table 1 below, this solution would be significantly more expensive from a total cost of service perspective than the proposed Full Rebuild.

5.2 Alternative 2 – Structure Remediation

The second alternative considered by PPL Electric to address the poor health condition of the weathering steel COR-TEN® lattice towers on these lines was to remediate all lattice towers supporting the line, which would include replacing severely damaged members with galvanized steel members, installing new hardware and spacers, and cleaning pack-out rust from affected joints. The average estimated cost of remediation is approximately \$213,180/structure. This alternative was rejected by PPL Electric due to substantial uncertainties regarding its immediate

and long-term effectiveness to address the COR-TEN® issue.¹³ Although remediation could extend the life of the structures, it would, at a minimum, require re-evaluation and possible subsequent remediation every 10 years following the initial remediation. Moreover, the health and safety risks associated with the assets' advanced age and degree of deterioration are so great that remediation would fail to adequately address their poor health conditions.

Subsequent remediation work would be treated as an O&M expense. However, after 30 years, the line will need to be rebuilt with new structures at approximately \$708,374/structure. Further, remediation would not address all underlying issues, requiring additional, duplicative projects.

Remediation would fail to address the underlying COR-TEN® asset health conditions on a long-term basis and is a less cost-efficient option. For the reasons stated above, it is not reasonable or prudent to pursue Alternative 2.

5.3 Alternative 3 – Full Rebuild

The third alternative considered by PPL Electric is to fully rebuild the existing Mountain-Jenkins-Stanton 230 kV Transmission Lines. Replacing the existing lattice towers with monopoles will improve performance by increasing clearances and improving lightning performance. The estimated rebuild cost is approximately \$708,374/structure. As part of the Alternative 3 analysis, rebuilding the existing Mountain-Jenkins-Stanton 230 kV Transmission Lines underground was rejected due to the substantial increase in overall project costs and environmental impact, considering the line length, geographic location and rough terrain.

The revenue requirements for a rebuild over both a 45 and 75-year period¹⁵ are lower than Alternatives 1 and 2 (as shown in **Table 1-6**), making the rebuild the more cost-effective solution. General maintenance work would not be needed until 30 years after the rebuild due to fully replacing the affected structures (as opposed to attempting to add more useful life being added to those structures via remediation). Additionally, less frequent inspections would be needed due to

¹³ The contractors that provided the cost estimate have never performed a full weathering-steel COR-TEN® lattice tower remediation before. And, moreover, it is PPL Electric's understanding that complete remediation of COR-TEN® lattice towers has never been undertaken by another electric utility. Given the lack of industry experience with remediation, PPL Electric cannot adequately benchmark the efficacy and costs of this alternative. Rebuilding the subject transmission lines, as proposed by the Project, would avoid these potential unknown risks and costs.

the line utilizing all new assets, including structures and conductor, which lowers O&M costs. Rebuilds are also less risky than remediation due to factors such as lack of remediation experience, lack of evidence for long-term remediation effectiveness, and risk of returning pack-out rust. The structure replacement option would continue to have ongoing O&M expense with the additional need to return in 2026 to reconductor the line for an additional \$322,011/structure. When compared to the remediation or replacement options, the full rebuild option is more cost-effective and lower risk, making the full system rebuild the best long-term solution.

TABLE 1-6: Cost of Service of Evaluated Options

Project Scope	45 Year Cost of Service (\$M)	75 Year Cost of Service (\$M)
Replace Structures on Mountain-Jenkins-Stanton 230 kV Transmission Lines	\$252.3	\$298.8
Remediate Structures on Mountain-Jenkins-Stanton 230 kV Transmission Lines	\$226.2	\$431.7
Full Rebuild of the Mountain-Jenkins-Stanton 230 kV Transmission Lines	\$219.4	\$268.2

6.0 PROPOSED SOLUTION

The full rebuild of the Mountain-Jenkins-Stanton 230 kV Transmission Lines appropriately addresses the asset health conditions described above at the most reasonable cost and, therefore, is the proposed solution. Although PPL Electric evaluated replacement and remediation options, these alternatives present substantial uncertainties regarding their immediate and long-term effectiveness to address the COR-TEN® pack-out rust issue. As explained herein, the health and safety risks associated with the assets’ advanced age and degree of deterioration are so great that replacement and remediation would fail to adequately address their poor health conditions. For these reasons, the replacement and remediation alternatives were rejected as neither prudent nor reasonable. If PPL Electric were to remediate the existing COR-TEN® lattice towers, further

routine inspections would be required to identify any new pack-out rust growth requiring additional corrective action. The remediation effort could provide a short-term extension of life, but these towers will still need to be replaced to permanently address the issue of pack-out rust since structural integrity of the COR-TEN® steel will become too compromised to remediate. In this regard, Alternative 2 does not represent an alternative that effectively addresses the structural issues associated with the COR-TEN® lattice towers.

Based on this evaluation, PPL Electric proposes to rebuild the existing Mountain-Jenkins-Stanton 230 kV Transmission Lines to resolve the COR-TEN® lattice tower health conditions. As part of the rebuild, all the COR-TEN® lattice structures as well as the conductors and associated hardware will be replaced, effectively addressing the asset health conditions described above.

The proposed Project will improve overall reliability, safety, and system resiliency by resolving the asset health concerns associated with COR-TEN® lattice towers. The transmission line rebuild solution was deemed the most cost-effective option to address these concerns.

The Proposed Solution is the most cost-effective. To estimate the total cost of each alternative over both a 45-year and 75-year period (the expected service life of a new steel structure), cost-of-service calculations for the revenue requirement were completed on a per-structure basis.¹⁴ A summary of this analysis is presented in Table 1-6 above. On a total cost of service basis, the Proposed Solution is approximately 87% of the cost of Alternative 1 (replacing each of the existing structures) on a 45-year basis and 90% of the cost of Alternative 1 on a 75-year basis.

The Proposed Solution also avoids excess costs and uncertainties surrounding the remediation solution contemplated in Alternative 2. On a total cost of service basis, the Proposed Solution is approximately 97% of the cost of Alternative 2 (remediating the existing structures) on a 45-year basis and 62% of the cost of Alternative 2 on a 75-year basis. Moreover, PPL Electric is unaware of another project that has undergone full weathering-steel COR-TEN® lattice tower remediation.

¹⁴ Because all COR-TEN® lattice structures on the system are of a similar design and vintage, doing the cost of service calculation on a per structure basis allows for a determination of the most cost effective option for any COR-TEN® structure on the system regardless of the total line length. It is assumed that the cost of service calculation could be extrapolated across the total number of structures on a given line with a similar result. The revenue requirement is the total cost that the customers would be charged based on calculations that include a combination of operations and maintenance (“O&M”) expense, depreciation, and return on capital.

As such, the recurring costs of remediation could be even greater than anticipated and are unlikely to successfully mitigate the risk. The Proposed Solution avoids these excess costs and uncertainties, efficiently rebuilds the transmission lines to ensure the continued provision of safe and reliable service and resolves the additional reliability concerns identified herein.

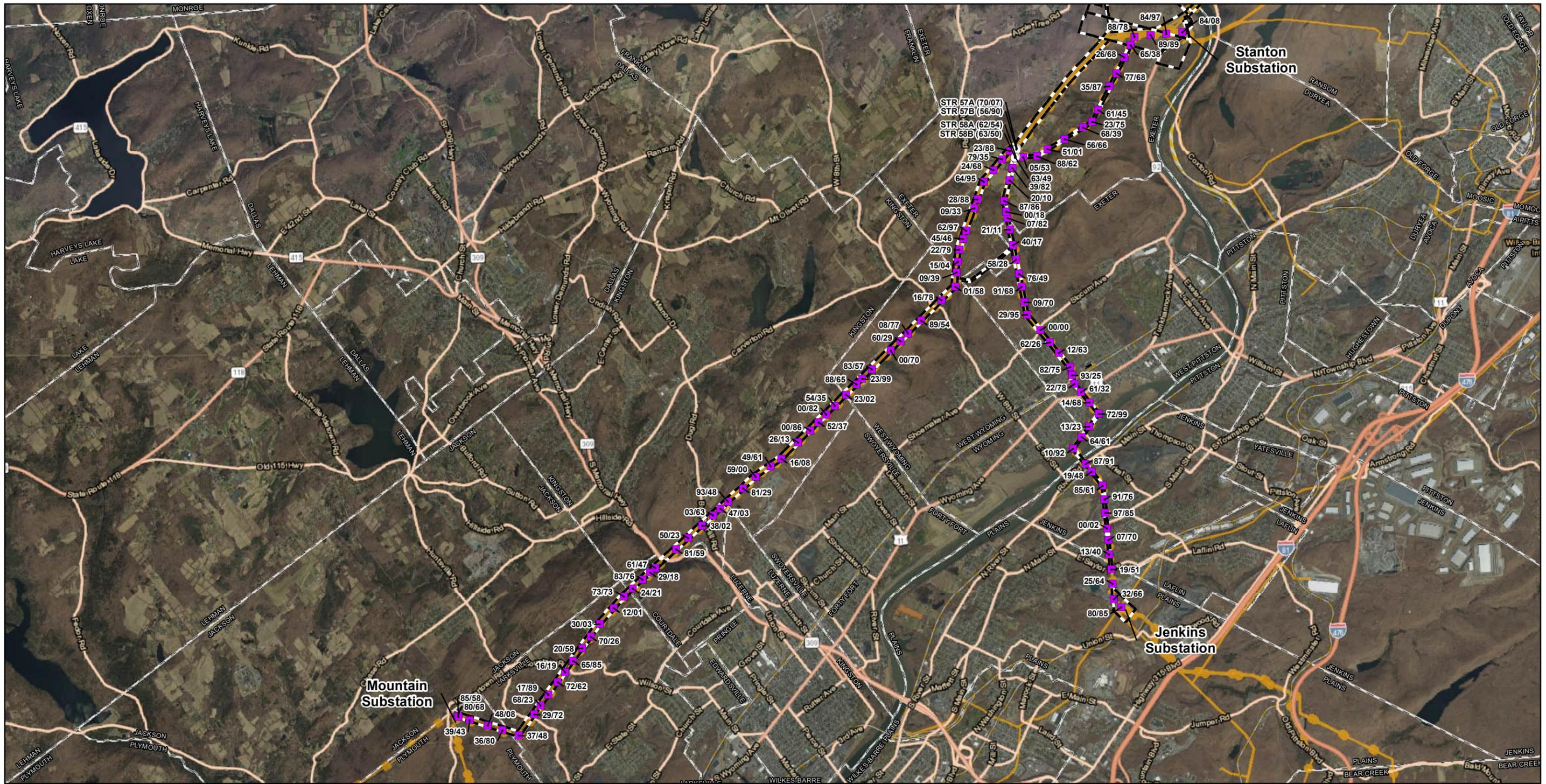
The approximate cost of the entire transmission line rebuild Project is \$72.9 Million.

As discussed in Section 4.2.1, above, the project scope (Supplemental Project Numbers S2371 and S2372) to rebuild the Mountain-Jenkins-Stanton 230 kV Transmission Lines was presented to PJM in the October 2020 TEAC meeting,¹⁵ to address the COR-TEN® asset health issues.

A map of the proposed system alignment is provided as **Figure 1-3**.

¹⁵ Refer to slides 21 through 24 at <https://www.pjm.com/~media/committees-groups/committees/teac/2020/20201006/20201006-item-09-ppl-supplemental.ashx>

Figure 1-2: Existing System Configuration



Legend

○ Existing Structure (To Remain)	Existing Transmission Lines
■ Existing Structure (To Be Replaced)	— 69 kV
— PPL Electric 230kV ROW	— 230 kV
□ PA Municipalities	— 500 kV

Notes:

- Existing structure locations and right-of-way were provided by PPL Electric in March 2023.
- Existing Transmission Lines provided by PPL Electric in April 2019.

NAD 1983 State Plane
 Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 0.5 foot Orthoimagery (PEMA 2021)

0 3,000 6,000 12,000
 Feet
 1 inch = 6,000 feet

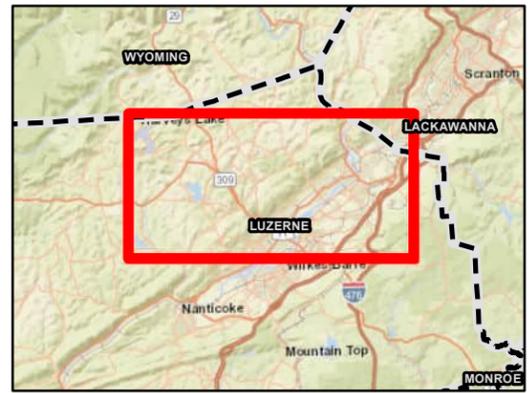


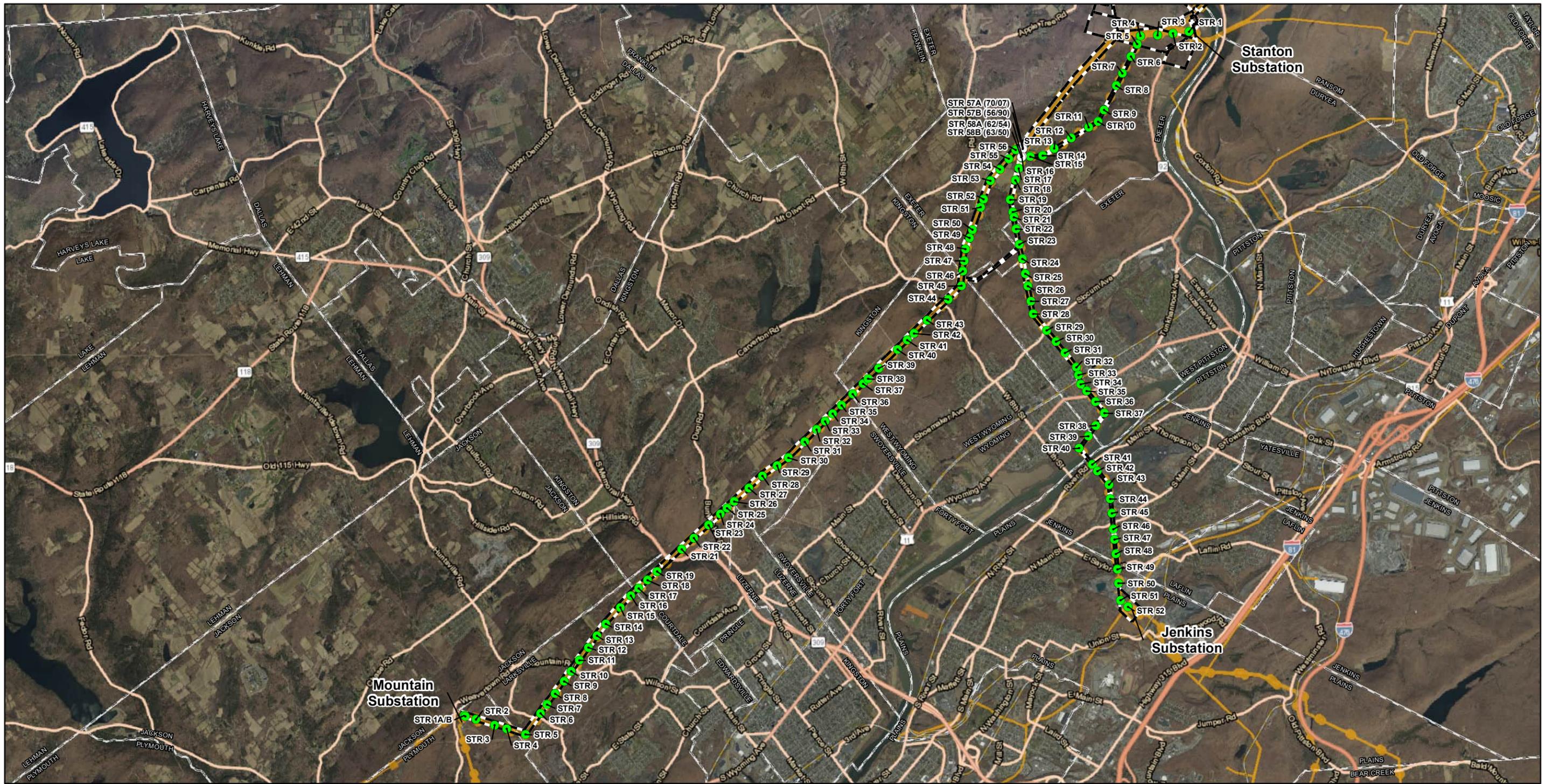
FIGURE 1-2
Existing System Configuration
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project

Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: BSF	Checked By: DJY/BAB
Job: 60704087	Date: 8/14/2024

Figure 1-3: Proposed System Configuration



Legend

- Proposed Structure
- Existing Structure (To Remain)
- PPL Electric 230kV ROW
- PA Municipalities

Existing Transmission Lines

- 69 kV
- 230 kV
- 500 kV

Notes:

- Proposed structure locations were provided by PPL Electric in July 2023.
- Existing Transmission Lines provided by PPL Electric in April 2019.

NAD 1983 State Plane
 Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 0.5 foot Orthoimagery (PEMA 2021)

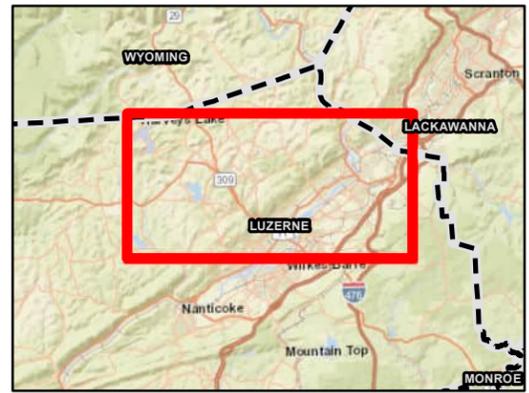


FIGURE 1-3
Proposed System Configuration
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project

Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/14/2024

**PPL ELECTRIC
ATTACHMENT 2**

MOUNTAIN-JENKINS-STANTON 230 kV COR-TEN® REBUILD PROJECT

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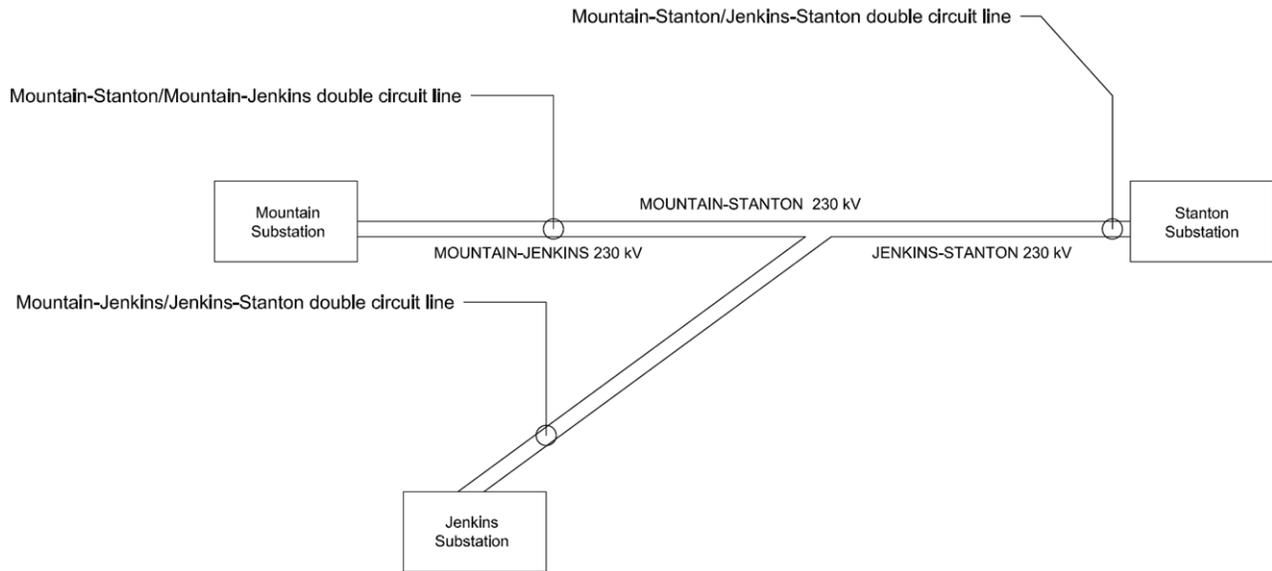
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1.0 INTRODUCTION

As explained in **Attachment 1**, PPL Electric Utilities Corporation (“PPL Electric” or the “Company”) is requesting Pennsylvania Public Utility Commission (“PUC” or “the Commission”) approval to rebuild three existing sections of double-circuit 230 kV transmission lines (known as the “Mountain-Jenkins-Stanton 230 kV Transmission Lines”) connecting the UGI Utilities, Inc. owned Mountain 230-69 kV Substation (“Mountain Substation”) to the PPL Electric owned Jenkins 230-69 kV Substation (“Jenkins Substation”) and Stanton 230-69 kV Substation (“Stanton Substation”). The Mountain-Jenkins-Stanton 230 kV Transmission Lines and three interconnected substations are located in Luzerne County, Pennsylvania (“Project”). The one-line diagram of the existing system configuration is provided below as **Figure 2-1** and includes the following segments:

- The Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line that extends from the Mountain Substation to an intersection with the Mountain-Jenkins/Jenkins-Stanton 230 kV double-circuit line.
- The Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line that extends from the Jenkins Substation to an intersection with the Mountain-Stanton/Mountain-Jenkin 230 kV double-circuit line.
- The Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line that extends from this intersection point to the Stanton Substation.

Figure 2-1: One-Line Drawing of Project



The proposed transmission line system will be designed according to, and generally exceed, all National Electrical Safety Code (“NESC”) standards. Design specifications and safety rules adhered to by PPL Electric are included as **Attachment 4**.

2.0 DESCRIPTION OF THE EXISTING AND PROPOSED LINES AND STRUCTURES

The Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line consists of an approximate 9.8-mile-long section that extends between the Mountain Substation and the intersection with the Mountain-Jenkins/Jenkins-Stanton 230 kV double-circuit (**Figure 2-2**). The Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line consists of six 1590 kcmil¹, 45/7 stranding, “Lapwing” ACSR² conductor wires and one overhead ground wire (“OHGW”) and one 48-count optical ground wire (“OPGW”). These conductor and ground wires are supported by a series of fifty-seven (57) transmission line structures that include forty-eight (48) COR-TEN® double-circuit steel lattice tower structures.

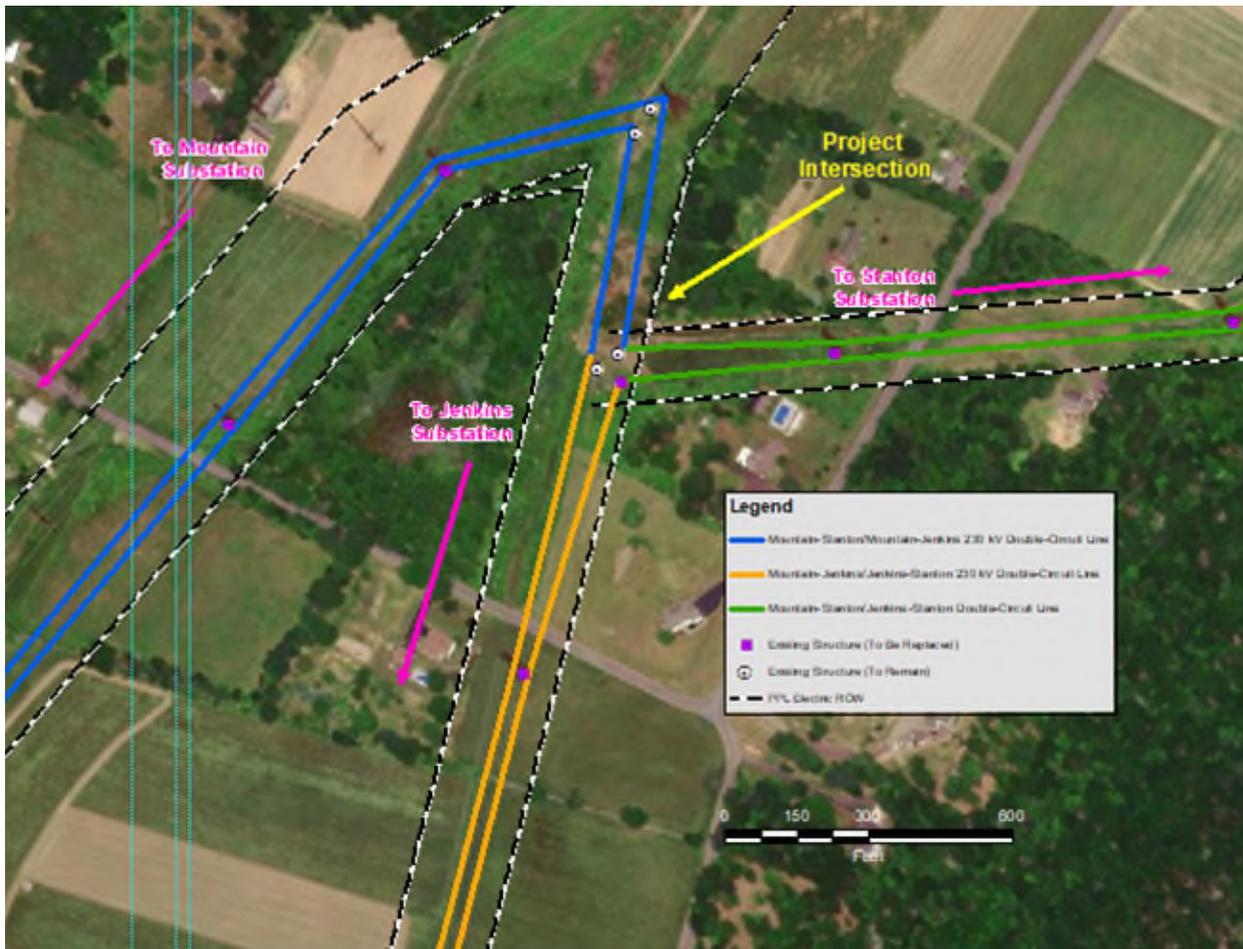
¹ A kcmil is a thousand circular mils. A circular mil is the cross-sectional area of a wire one mil in diameter, where 1 kcmil = 0.5067 mm².

² ACSR stands for aluminum conductor steel reinforced.

The Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line consists of an approximate 5.8-mile-long section that extends between the Jenkin Substation and the intersection with the Mountain-Stanton/Mountain-Jenkins 230 kV double-circuit line. The Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line consists of six 1590 kcmil, 45/7 stranding, “Lapwing” ACSR conductor wires and one OHGW and one 48-count OPGW. These conductor and ground wires are supported by a series of thirty-seven (37) transmission line structures that include thirty-six (36) COR-TEN® double-circuit steel lattice tower structures.

The Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line consists of an approximate 2.7-mile-long section that extends between the Project intersection and the Stanton Substation. The Mountain-Stanton/Jenkins-Stanton double-circuit line consists of six 1590 kcmil, 45/7 stranding, “Lapwing” ACSR conductor wires and one OHGW and one 48-count OPGW. These conductor and ground wires are supported by a series of fifteen (15) transmission line structures, all of which are COR-TEN® double-circuit steel lattice tower structures.

Figure 2-2: Illustration of Project Intersection



Due to the corrosion and development of pack-out rust³ on the existing 99 COR-TEN® lattice tower structures, PPL Electric proposes to replace the towers with double-circuit steel monopole structures. Tower 50229N41418 (Structure 19) on the Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Line section was adjusted to account for a long span that negated the need to replace Tower 50261N41447 (Structure 20). Five non-COR-TEN® structures are being replaced as part of the Project due to changes in ground clearance and structural loading requirements.

For the Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line section, the COR-TEN® lattice tower structures to be replaced extend consecutively between existing

³ “Pack-out rust” is a form of localized corrosion typical of steel components that develop a crevice into an open atmospheric environment, which results in rust packing between conjoined steel components. As described in Attachment 1, pack-out rust accelerates the deterioration of asset health and can result in shearing off bolts, loss of structural integrity, members disconnecting from lattice towers, and tower failure.

Tower 49139N40543 (Structure 2) located near the Mountain Substation to Tower 52423N43988 (Structure 56) located near the Project intersection. As noted above, Structure 20 will not be replaced. Two single-circuit monopole structures that are used to direct the wires into the Mountain Substation (Structures 1A and 1B) will also be replaced and upgraded with new conductor and ground wires.

For the Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line section, the two galvanized steel towers adjacent to the Jenkins Substation (Structures 52 and 51) will also be replaced and upgraded with new conductor and ground wires. The COR-TEN® lattice tower structures to be replaced extend consecutively between existing Tower 53025N41364 (Structure 50) located near the Jenkins Substation and Tower 52439N43882 (Structure 17), which is located at a sharp change in direction near the Project intersection. This sharp turn is facilitated by a single-circuit monopole structure (Structure 52463N43949 (Structure 16)), which will also be replaced.

For the Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line section, the replaced COR-TEN® structures continue at Tower 52505N43953 (Structure 15) and extend to Tower 53484N44708 (Structure 1) located adjacent to the Stanton Substation. The four single-circuit monopole structures at the Project intersection will not be replaced but will be upgraded with new conductor and ground wires.

A detailed map of the Project alignment is provided as **Figure 3-1 in Attachment 3**.

For all three sections, the existing COR-TEN® lattice tower structures range in height from between approximately 101 and 172 feet with an average structure height of approximately 137 feet. The proposed monopole structures for the rebuilt transmission lines will range in height from between approximately 105 and 170 feet with an average structure height of approximately 138 feet. **Table 2-1** provides a summary of the number and heights of the existing and proposed structures.

Table 2-1: Existing and New Transmission Line Structures

Transmission Line	No. of Existing Structures	Existing Structure Height Range (feet)	Proposed No. of New Structures ⁴	Proposed Structure Height Range (feet)	Applicable Framing/ Specifications
MOUNTAIN-STANTON/ MOUNTAIN-JENKINS 230 KV DOUBLE-CIRCUIT LINE	57	101-172	56	105-170	7-009-013 7-009-061 7-009-064
MOUNTAIN-JENKINS/ JENKINS-STANTON 230 KV DOUBLE-CIRCUIT LINE	37		37		7-009-061 7-009-062 7-009-064
MOUNTAIN-STANTON/ JENKINS-STANTON DOUBLE- CIRCUIT LINE	15		15		7-009-061 7-009-062 7-009-064
Total	109		108		

Figures 2-2 through 2-5 depict typical structure types that will be used for supporting the rebuilt transmission lines, which include the following:

- Install approximately 61 new double-circuit long span suspension structures (**Figure 2-2**).
- Install approximately 11 new double-circuit long span angle tension structures (**Figure 2-3**).
- Install approximately 33 new double-circuit long span angle tension structures (**Figure 2-4**).
- Install approximately 3 new single-circuit 0° to 90° angle tension structures (**Figure 2-5**).

The proposed monopole structures for the Project will be constructed in generally the same location as the existing COR-TEN® lattice towers. The transmission lines cannot be fully deenergized during the construction process, thereby requiring the new monopoles to be offset approximately 30 feet ahead or behind and horizontally offset approximately 10 to 15 feet from the existing COR-TEN® structure locations as a safety precaution. PPL Electric has designed the proposed transmission lines so they fit entirely within the existing right of way (“ROW”).

The proposed new transmission lines will consist of six 1590 kcmil, 54/19 stranding, “Falcon” High Strength ACSS⁵ conductors. The new OPGW for the Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Line section will consist of 0.752-inch-diameter 48-count fiber. The new OPGW for the Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Line and Mountain-Stanton/Jenkins-Stanton Double-Circuit Line sections will consist of 0.791-inch-diameter 144-

⁴ Proposed number of new structures includes the four existing steel monopole structures at the Project intersection that will not be replaced but will be upgraded with new conductor and ground wires.

⁵ ACSS stands for aluminum conductor steel supported.

count fiber. The OHGWs for all three sections will not be replaced. The minimum conductor-to-ground clearance will be 25.5 feet, which occurs at the emergency maximum thermal conductor temperature of 250°C (482°F). The design minimum conductor clearances and conductor thermal ratings for the reconstructed lines are noted in **Tables 2-2 and 2-3**.

Table 2-2: Design for Minimum Conductor Clearance for 1590 kcmil 54/19 Stranding Falcon High Strength ACSS

Condition	Transmission Double-Circuit Design Clearance-to-Ground
PPL Heavy Ice (1" ice, 32°F)	25.5'
Max Operating Temperature (250°C / 482°F)	25.5'
PPL Blowout (15psf, 60°F)	25.5'

Table 2-3: Conductor Thermal Rating 1590 kcmil 54/19 Stranding Falcon High Strength ACSS – 200°C Normal Maximum Conductor Temperature (250°C Emergency)

Condition	Ambient Temperature (°C)	Wind Speed (Ft./sec)	Ampacity (Amps)
Summer Normal	35	0	2344
Winter Normal	10	0	2506
Summer Emergency	35	2.53	3074
Winter Emergency	10	2.53	3201

Figure 2-3: Typical 230 kV Long Span Double-Circuit Steel Pole Structure

	7-009-061 230kV Long Span Double Circuit Steel Pole 0° to 1° Suspension Structure	Revision: 0 Effective Date: 3/18/2016 Sheet 1 of 1
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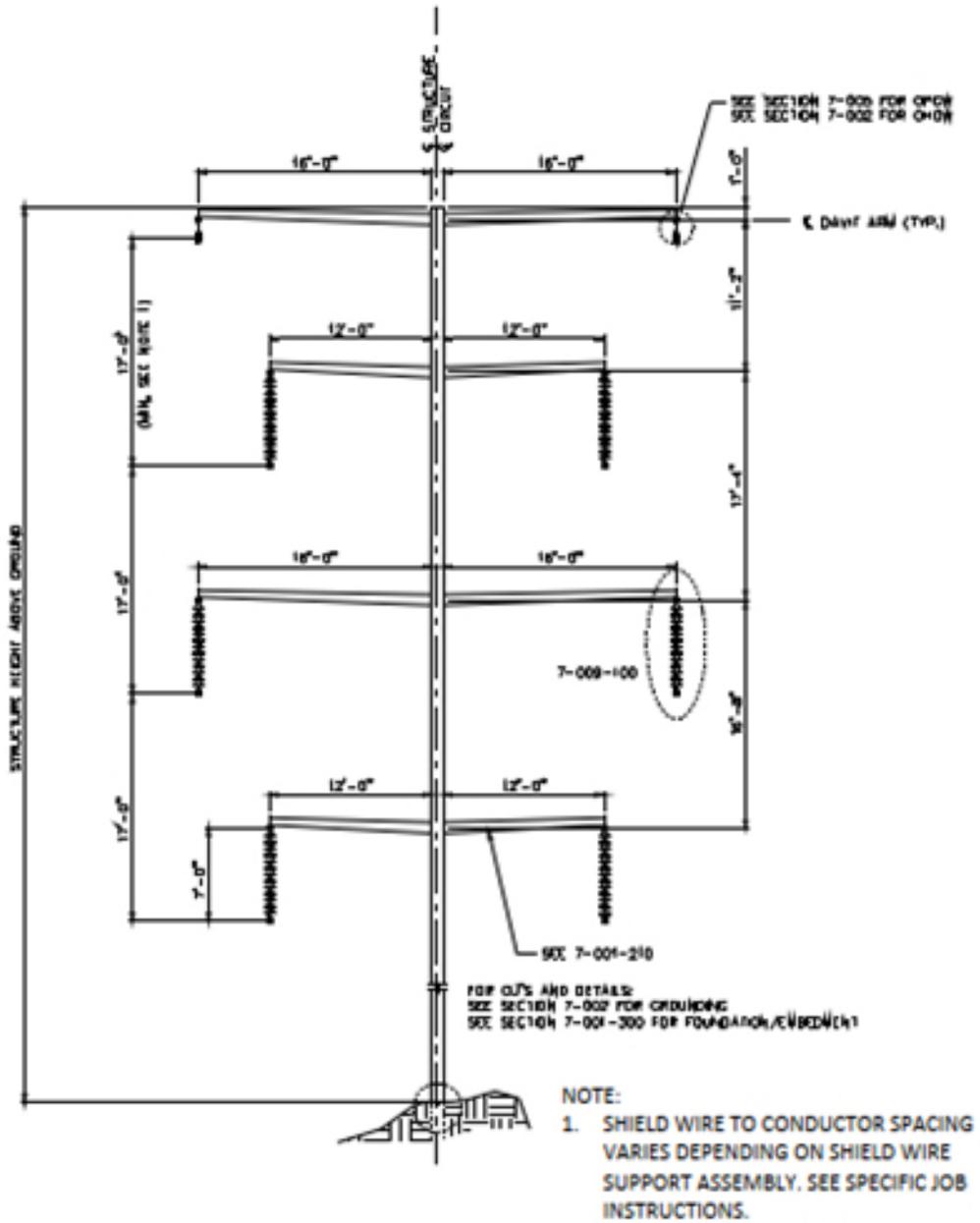


Figure 2-5: Typical 230 kV Long Span Double-Circuit Steel Pole Angle Tension on Arm Structure



7-009-064

230kV Long Span Double Circuit Steel Pole
 0° To 90° Angle Tension on Arm Structure

Revision: 0
 Effective Date: 3/18/2016
 Sheet 1 of 1

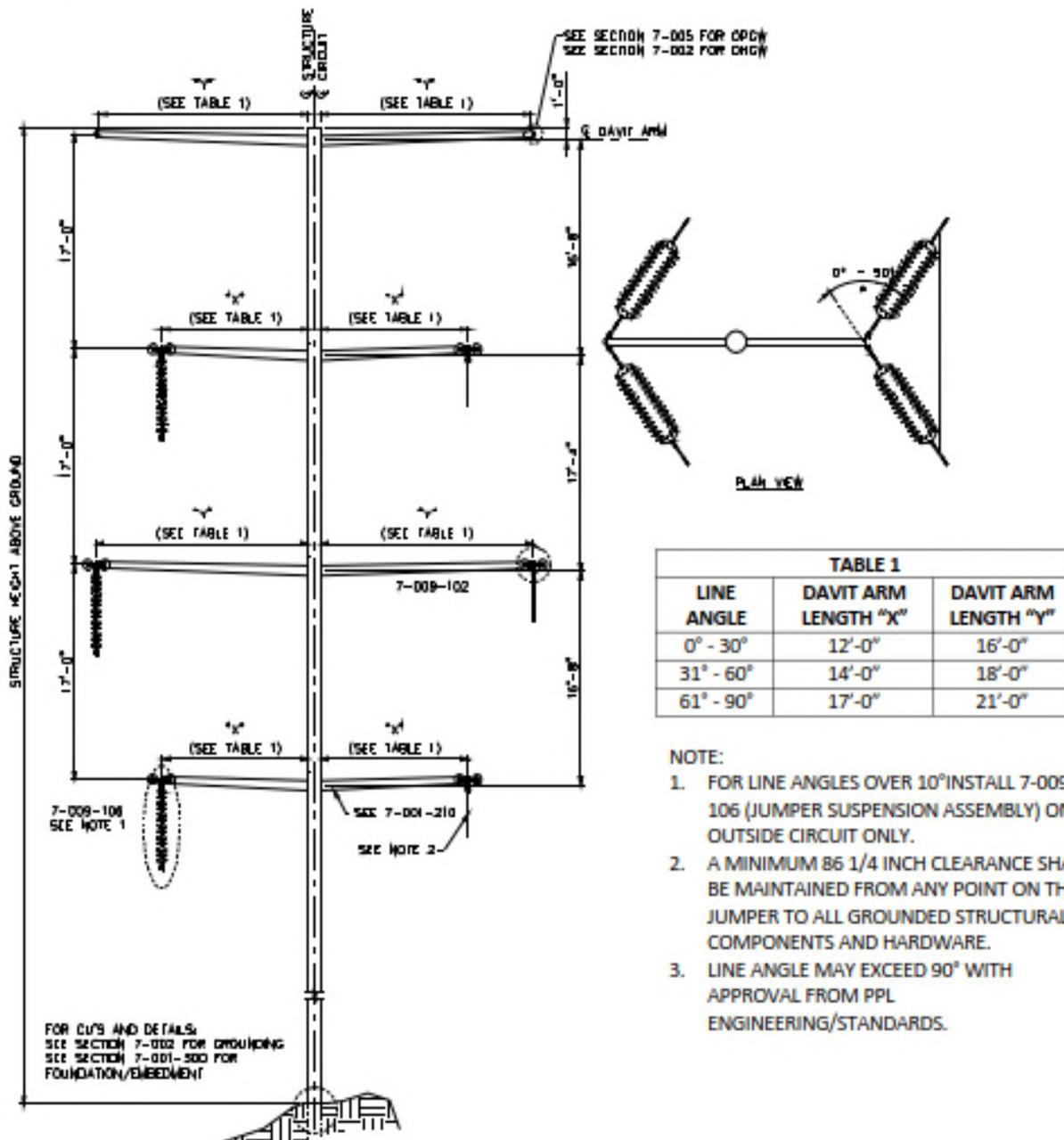
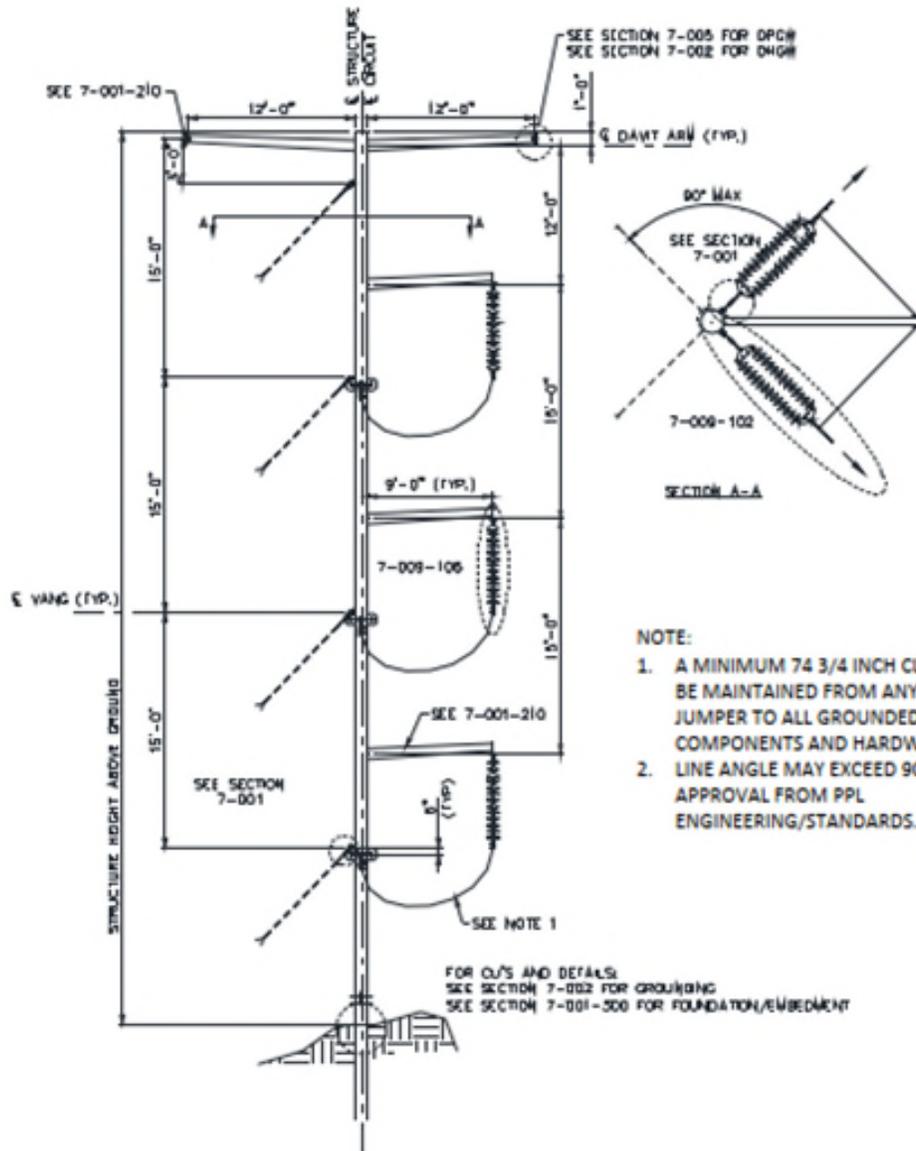


Figure 2-6: Typical 230 kV Single-Circuit Steel Pole 0° to 90° Angle Tension Structure

	7-009-013 230kV Single Circuit Steel Pole 0° to 90° Angle Tension on Pole Structure	Revision: 0 Effective Date: 3/18/2016 Sheet 1 of 1
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- NOTE:
1. A MINIMUM 74 3/4 INCH CLEARANCE SHALL BE MAINTAINED FROM ANY POINT ON THE JUMPER TO ALL GROUNDED STRUCTURAL COMPONENTS AND HARDWARE.
 2. LINE ANGLE MAY EXCEED 90° WITH APPROVAL FROM PPL ENGINEERING/STANDARDS.

REV	Date	Sponsor	Reviewer	Transmission Construction Standards PPL Electric Utilities Corporation
0	3/18/16	MSD	SDS	Approved T. P. Hinson Manager Standards

**PPL ELECTRIC
ATTACHMENT 3**

MOUNTAIN-JENKINS-STANTON 230 kV COR-TEN® REBUILD PROJECT

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Table 3-2: Named Streams Crossed by the Project

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Figure 3-1 (Sheets 1-22): Aerial Map of the Project

1.0 INTRODUCTION

PPL Electric Utilities Corporation (“PPL Electric” or the “Company”) is requesting Pennsylvania Public Utility Commission (“PUC” or “the Commission”) approval to rebuild three existing sections of double-circuit 230 kV transmission lines (known as the “Mountain-Jenkins-Stanton 230 kV Transmission Lines”) connecting the UGI Utilities, Inc. (“UGI”) owned Mountain 230-69 kV Substation (“Mountain Substation”) to the PPL Electric owned Jenkins 230-69 kV Substation (“Jenkins Substation”) and Stanton 230-69 kV Substation (“Stanton Substation”). The Mountain-Jenkins-Stanton 230 kV Transmission Lines and three interconnected substations are located in Luzerne County, Pennsylvania (“Project”)¹. Their transmission line general arrangements are described as follows:

- The Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line that extends from the Mountain Substation to an intersection with the Mountain-Jenkins/Jenkins-Stanton 230 kV double-circuit line.
- The Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line that extends from the Jenkins Substation to an intersection with the Mountain-Stanton/Mountain-Jenkin 230 kV double-circuit line.
- The Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line that extends from this intersection point to the Stanton Substation.

The Project will be on the same structure alignment and right of way (“ROW”) as the existing transmission lines which varies in width from 150 feet to 325 feet. The Project involves removal of 109 existing structures of which 108 will be replaced and constructed entirely within the existing ROW or on PPL Electric’s Mountain, Jenkins, and Stanton Substation properties. A network of existing access roads or temporary roads will be utilized during construction of the Project. Detailed maps of the proposed rebuilt double-circuit 230 kV transmission lines and associated structures are provided in **Figure 3-1**.

Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line

From the Mountain Substation, the Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line travels in a northeasterly direction across predominantly forested lands before

¹ For a complete list of municipalities and counties crossed by the Project, please refer to the Letter of Notification, Attachment 5.

turning north and northeast towards the Project intersection, as shown in **Figure 3-1**. The ROW for this section of the Project is further described below:

- From Structures 1A and 1B at the Mountain Substation, the Project will extend east approximately 0.8 miles (4,150 feet) to Structure 5 (Sheet 1, Structures 1 to 5 in **Figure 3-1**). This section involves two single-circuit monopole structures that will be replaced with two single-circuit steel pole structures (7-009-013), and four COR-TEN® structures that will be replaced with three long span double circuit steel pole structures (7-009-061) and one long span angle tension structure (7-009-064). These structures are located entirely on PPL Electric’s Mountain Substation property or PPL Electric maintained ROW and are surrounded by predominantly forested lands.
- From Structure 5, the Project turns northeast and extends 7.2 miles (38,280 feet) through forested lands to Structure 45 (Sheets 1 to 10, Structures 6 to 45 in **Figure 3-1**). This section involves forty COR-TEN® structures that will be replaced with 39 structures that include 25 long span suspension structures (7-009-061) and 14 long span angle tension structures (7-009-064) – Structure 20 will not be replaced. These structures are located entirely on ROW maintained by PPL Electric. This section spans State Route(s) (“S.R.”) 1001, 1007, 0309, 1029, and 1021 and crosses Brown Creek, Toby Creek, and Abrahams Creek.
- From Structure 45, the Project turns north-northeast for 1.8 miles (9,504 feet) to Structure 56 (Sheets 10 to 12, Structures 46 to 56 in **Figure 3-1**). The eleven COR-TEN® structures along this segment will be replaced with seven long span suspension structures (7-009-061) and four long span angle tension structures (7-009-064). These structures are located entirely on ROW maintained by PPL Electric and this segment spans S.R. 1067 and 1025.

At this point the Mountain-Stanton/Mountain-Jenkins 230 kV Double-Circuit Transmission Line intersects with the Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line through a series of monopoles that redirect specific lines to the east and northeast as the Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line, which extends to the Stanton Substation. The four monopoles involved at this intersection of lines (Project intersection) are not being replaced but they will be upgraded with new conductor and ground wires.

Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line

From the Jenkins Substation, the Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line extends northeast through urban and residential developments before turning north through predominantly forested lands as it extends towards the Project intersection near the Stanton Substation as shown in **Figure 3-1**. The ROW for this section of the Project is further described below:

- From Structure 52, the Project turns to the northeast for 2 miles (10,560 feet) to Structure 40, which is located on the north side of the Susquehanna River (Sheets 20 to 22, Structures 52 to 40 in **Figure 3-1**). Two existing double-circuit galvanized steel towers located adjacent to the Jenkins Substation will be replaced with two long span angle tension structures (7-009-064). The eleven COR-TEN® structures along this segment will be replaced with 9 long span suspension structures (7-009-061) and two long span angle tension structures (7-009-064). These structures are located entirely on ROW maintained by PPL Electric or on property owned by PPL Electric. Land use is mostly residential with pockets of commercial and industrial areas closer to the Jenkins Substation. The segment spans S.R. 2004, 2024 and 2015 as well as the Wilkes Barre Industrial Track rail line and the Susquehanna River.
- From Structure 39, the Project turns to the east for 0.5 miles (2,640 feet) to Structure 37 (Sheet 20, Structures 39 to 37 in **Figure 3-1**). The three COR-TEN® structures along this segment will be replaced with two long span angle suspension structures (7-009-062) and one long span angle tension structure (7-009-064). These structures are located entirely on ROW maintained by PPL Electric. Land use for this segment is completely made up of forested lands that parallels along the Susquehanna River.
- From Structure 36, the Project turns to the northeast for 3.3 miles (17,420 feet) to Structure 16, which is located at the Project intersection (Sheets 16 to 20, Structures 36 to 16 in **Figure 3-1**). The twenty COR-TEN® structures along this segment will be replaced with 12 long span suspension structures (7-009-061), four long span angle suspension structures (7-009-062), and four long span angle tension structures (7-009-064). The existing single-circuit monopole (Structure 16) will be replaced with one single-circuit angle tension structure (7-009-013). These structures are located entirely on ROW maintained by PPL

Electric. This segment spans S.R. 1025, 1010, and 0011 as well as two crossings of the West Pittston Branch rail line. Land use along this segment is a mix of forested lands, residential and recreation areas. This section of the project also spans Hicks Creek between structures 30 and 29.

Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line

From the Project intersection, the Mountain-Stanton/Jenkins-Stanton Double-Circuit Transmission Line extends northeast through forested and agricultural lands as it heads towards the Stanton Substation as shown in **Figure 3-1**. The ROW for this section of the Project is further described below:

- From Structure 15, the Project turns to the northeast for 2.1 miles (11,090 feet) to Structure 4 (Sheets 13 to 16, Structures 15 to 4 in **Figure 3-1**). The twelve COR-TEN® structures along this segment will be replaced with five long span suspension structures (7-009-061), three long span angle suspension structures (7-009-062), and four long span angle tension structures (7-009-064). These structures are located entirely on ROW maintained by PPL Electric. This segment spans S.R. 1038 and land use is forested but with small pockets of residential development adjacent to the ROW. Additionally, this segment spans Obendoffers Creek between structures 9 and 8.
- From Structure 3 the project turns east for 0.6 miles (3,168 feet) to Structure 1 at the Stanton Substation (Sheet 15, Structures 3 to 1 in **Figure 3-1**). The three COR-TEN® structures along this segment will be replaced with two long span angle suspension structures (7-009-062) and one long span angle tension structures (7-009-064). These structures are located entirely on ROW maintained by PPL Electric or on property owned by PPL Electric. This segment spans S.R. 92 with predominantly forested land use that contains pockets of residential development adjacent to the Susquehanna River.

2.0 LAND USE

PPL Electric evaluated the existing land uses on the PPL Electric owned properties, within the existing ROW, and within 0.25 mile (1,320 feet) of the Project centerline (“Project Area”). This broader Project Area was reviewed to provide a sense of the landscape in which the Project is

located. Based on review of the 2019 National Land Cover Data (“NLCD”), land use in the Project Area is approximately 60% forest with the remaining 40% comprised of development, mixed residential, open space and pasture lands.

Two communication towers are located in the Project Area but neither will be affected by the proposed Project. The Project crosses three railroads. The West Pittston Branch is spanned by the Project twice approximately 2.5 miles north of Jenkins Substation and the Wilkes Barre Industrial Track is spanned by the Project just south of the Susquehanna River, approximately 1.75 miles north of the Jenkins Substation. One gas pipeline crosses the Project two separate times. The Transcontinental Gas Pipeline crosses the Mountain-Stanton portion of the Project near Wyoming and again near Laflin on the Jenkins-Stanton section of the Project PPL Electric will coordinate mitigation measures where necessary, as deemed appropriate by the pipeline owner(s)/operator(s).

The closest active airport relative to the Project Area is the Wilkes-Barre Wyoming Valley Airport, which is located along Route 11 in Wyoming and approximately 1 mile from both the Mountain-Stanton and Jenkins-Stanton transmission line corridors. The Wilkes-Barre Scranton International Airport is located approximately 4.25 miles to the southeast of the Stanton Substation. PPL Electric does not anticipate any interference with airport operations because the Project is located in an area where there are existing electrical facilities. However, PPL Electric will comply with any applicable requirements of the Federal Aviation Administration and the Pennsylvania Department of Transportation, Bureau of Aviation.

Conserved Lands

The proposed Project will not affect any national parks, state parks, local parks, or natural landmarks. Along the Mountain-Stanton/Mountain-Jenkins portion of the Project, the Back Mountain Trail Easement will be spanned by the Project near S.R. 309. The easement is a conserved land that is part of the Anthracite Scenic Trail Association in Kingston Township. Adjacent to the Project, the Pinchot State Forest’s Harvey’s Creek Tract is located approximately 0.5 miles south of the Mountain Substation. An additional property owned by Pinchot State Forest as well as the Frances Slocum State Park are located approximately 1 mile northwest of the Mountain-Stanton/Mountain-Jenkins portion of the Project.

Along the Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Transmission Line section of the Project, a Federal Emergency Management Agency (“FEMA”) Flood Buyout easement will be spanned by the Project south of the Susquehanna River crossing, 1.75 miles from the Jenkins Substation. Additionally, Plains Township Municipal Park is adjacent to the Project approximately 0.5 miles east of the Jenkins Substation.

3.0 CULTURAL RESOURCES

An online review of the Project Area and surrounding landscape was conducted through the Pennsylvania Historical and Museum Commission (“PHMC”) State Historic and Archaeological Resource Exchange site. State Historic Preservation Office (“SHPO”) eligible and listed structures and districts that were found within or close to the Project Area are listed in Table 3-1.

Table 3-1: Cultural Resources Located in the Project Area

Resource Name	Resource Type	Eligibility	Location
Central Railroad of New Jersey	District	Eligible	South of Jenkins Substation
Delaware, Lackawanna & Western Railroad	District	Eligible	North of Susquehanna River
Lehigh Valley Railroad	District	Eligible	North of Delaware, Lackawanna & Western Railroad and south of Susquehanna River
Pennsylvania Coal Company Gravity Railroad	District	Eligible	Consistent extent with Lehigh Valley Railroad

All of these historic corridors are spanned by the Project. PPL Electric is in the initial stage of coordination with the PHMC for the proposed Project. This coordination is required to receive permits prior to constructing the Project and will be conducted in the near future. PPL Electric does not anticipate any impacts to SHPO listed or eligible structures or districts. PPL Electric will perform any reviews and field survey/sampling work required by the PHMC to avoid, minimize, and mitigate impacts to archaeological or historic architectural resources that may be located within the Project Area.

4.0 NATURAL FEATURES

Unique Natural Features

No unique geological, scenic, or natural areas are located within the Project Area, according to the Pennsylvania Department of Conservation and Natural Resources (“PDCNR”).

Soils

The Project Area consists of a diverse topography of forested hills in the shadow of Larksville Mountain and Mount Lookout and flatter communities in the stream/river valleys that are spanned by the Project. Topography changes range from approximately 550 feet above sea level (“asl”) at the Susquehanna River crossing near the Jenkins Substation to approximately 1,570 feet asl along the Mountain-Stanton section near Mount Lookout. Soils present within the Project Area consist of mainly silt loams with varying sizes of rock fragments consisting of channery, gravel, and stony compositions.

Erosion and Sedimentation (“E&S”) control plans will be developed and implemented for the Project to minimize the displacement of soils. These plans will require prior approval from the local county conservation districts. National Pollutant Discharge Elimination System (“NPDES”) permits will also be required from the Pennsylvania Department of Environmental Protection (“PADEP”) as needed. During construction, PPL Electric will adhere to all conditions specified in the NPDES permit. Impacts to local soil resources are anticipated to be minimal.

Waterways

The existing transmission lines span several National Hydrography Dataset waterways that will remain in place after the Project construction activities have occurred. Review of the USGS mapping website indicated that the Project will aurally span six named streams which are listed in Table 3-2. The Project Area is located within the Abrahams Creek watershed (USGS Hydrologic Unit Code (“HUC”) 020501070201), the Brown Creek-Susquehanna River watershed (HUC 020501070205), the Laurel Run-Mill Creek watershed (HUC 020501070202), the Obendoffers Creek-Susquehanna River watershed (HUC 020501061409), and the Toby Creek watershed (HUC 020501070203). All of these watersheds generally flow to the south towards the

Susquehanna River except for the Laurel Run-Mill Creek watershed that flows to the west also to the Susquehanna River.

The streams in the Project Area have a few different PADEP Chapter 93 Designated Use Stream Classifications. The Susquehanna River has a designation of Warm Water Fishes (“WWF”), Migratory Fishes (“MF”). Toby Run has a PADEP Chapter 93 Designated Use Stream Classification of Trout Stocking Fishes (“TSF”), MF. Abrahams Creek, Brown Creek, Obendoffers Creek, and Hicks Creek have a PADEP Chapter 93 Designated Use Stream classification of Cold Water Fishes (“CWF”), MF. The Pennsylvania Fish and Boat Commission (“PFBC”) has designated Obendoffers Creek as a Class A Trout Stream and Toby Creek, an unnamed tributary (“UNT”) to Abrahams Creek, and Obendoffers Creek as Natural Reproduction Trout Streams, which may require seasonal restrictions for any work planned in these streams. No direct impact to these stream features are anticipated by the Project activities.

Table 3-2: Named Streams Crossed by the Project

Stream Name	Chapter 93 Designated Stream Classification	Watershed Name	Special PFBC Designation
Brown Creek	CWF, MF	Brown Creek-Susquehanna River	NO
Toby Creek	TSF, MF	Toby Creek	YES
Abrahams Creek	CWF, MF	Abrahams Creek	YES
Obendoffers Creek	CWF, MF	Obendoffers Creek-Susquehanna River	YES
Hicks Creek	CWF, MF	Brown Creek-Susquehanna River	NO
Susquehanna River	WWF, MF	Brown Creek-Susquehanna River	NO

An E&S control plan will be developed to address stormwater control in all watershed areas crossed by the Project. PPL Electric will obtain all approvals and permits necessary for the construction of the Project and will comply with any conditions placed on those permits.

Wetlands

Based on review of the U.S. Fish and Wildlife Service’s (“USFWS”) National Wetlands Inventory (“NWI”), the Project crosses two Palustrine, Excavated (PUBFx, PUSC_x) freshwater ponds and a Palustrine Emergent *Phragmites Australis* Temporarily Flooded (PEM5A) wetland. No impacts to these NWI features are anticipated by the proposed Project activities.

The NWI only provides a general overview of the potential wetlands that may be located within an area. For federal and state permitting purposes, the wetlands and waterways within the Project Area have been delineated, surveyed, and illustrated according to regulatory standards. This information is being used to minimize wetland and waterway impacts where feasible. Additionally, PPL Electric will avoid impacts to wetlands and waterways where possible by aerially spanning these features.

100-year Floodplains

The National Flood Hazard Layer for Luzerne County, Pennsylvania was obtained through the FEMA Flood Map Service Center website and analyzed for 100-year floodplains within the Project Area and surrounding landscape. Based on review of this data, the Project spans the FEMA 100-year floodplain located near Toby Creek, an adjacent UNT to Toby Creek, Abrahams Creek, Obendoffers Creek, Hicks Creek, and the Susquehanna River. The spanned 100-year floodplains crossed by the Project are categorized as either Zone A or Zone AE. Zone A areas are subject to inundation by the 1-percent-annual-chance flood event using approximate methodologies and no Base Flood Elevations (“BFE”) determined. Zone AE areas are subject to inundation by the 1-percent-annual-chance flood event using detailed methods and with BFEs established for the location. The Mountain-Stanton/Mountain-Jenkins project alignment will span a FEMA floodway area associated with Toby Creek. Several structures along the Mountain-Jenkins/Jenkins-Stanton project alignment are located within the floodway of the Susquehanna River. No impacts to the floodplain areas are anticipated by the proposed Project activities. Coordination with PADEP may be required regarding the structures located in the FEMA floodways.

Vegetation

Vegetative cover in the Project Area consists almost entirely of forested lands. The remaining areas consist of routinely maintained ROW corridors, riparian habitats and vegetation associated with residential/commercial development. The existing ROW areas for the transmission lines have previously been cleared of woody vegetation and no extensive tree clearing is anticipated. If vegetation management is required within the existing ROW, PPL Electric will apply its “Specifications for Transmission Vegetation Management LA-79827” to minimize potential impacts.

5.0 **THREATENED AND ENDANGERED SPECIES**

Natural Areas Inventory

Based on review of the *Natural Areas Inventory of Luzerne County, Pennsylvania*, published by The Nature Conservancy in 2006, the Project extends through two Pennsylvania Natural Heritage identified natural areas. Near the Stanton Substation, the Project crosses into the Susquehanna River at Duryea Natural Area which consists of aquatic and riparian habitats along the Susquehanna River corridor that supports two species of concern. Close to the Jenkins Substation, the Project extends through the Pittston Rookery Natural Area as the Project crosses the Susquehanna River. Natural areas identified in these documents generally focus on sites that provide habitat conditions for threatened and endangered plant or animal species.

Threatened and Endangered Species

A Pennsylvania Natural Diversity Inventory (“PNDI”) was run for the Project on April 11, 2023, to assess the potential presence of threatened and endangered species and/or special concern species. Specific agencies reviewing the Project included the following:

- Pennsylvania Game Commission (“PGC”),
- PFBC,
- PDCNR, and
- USFWS.

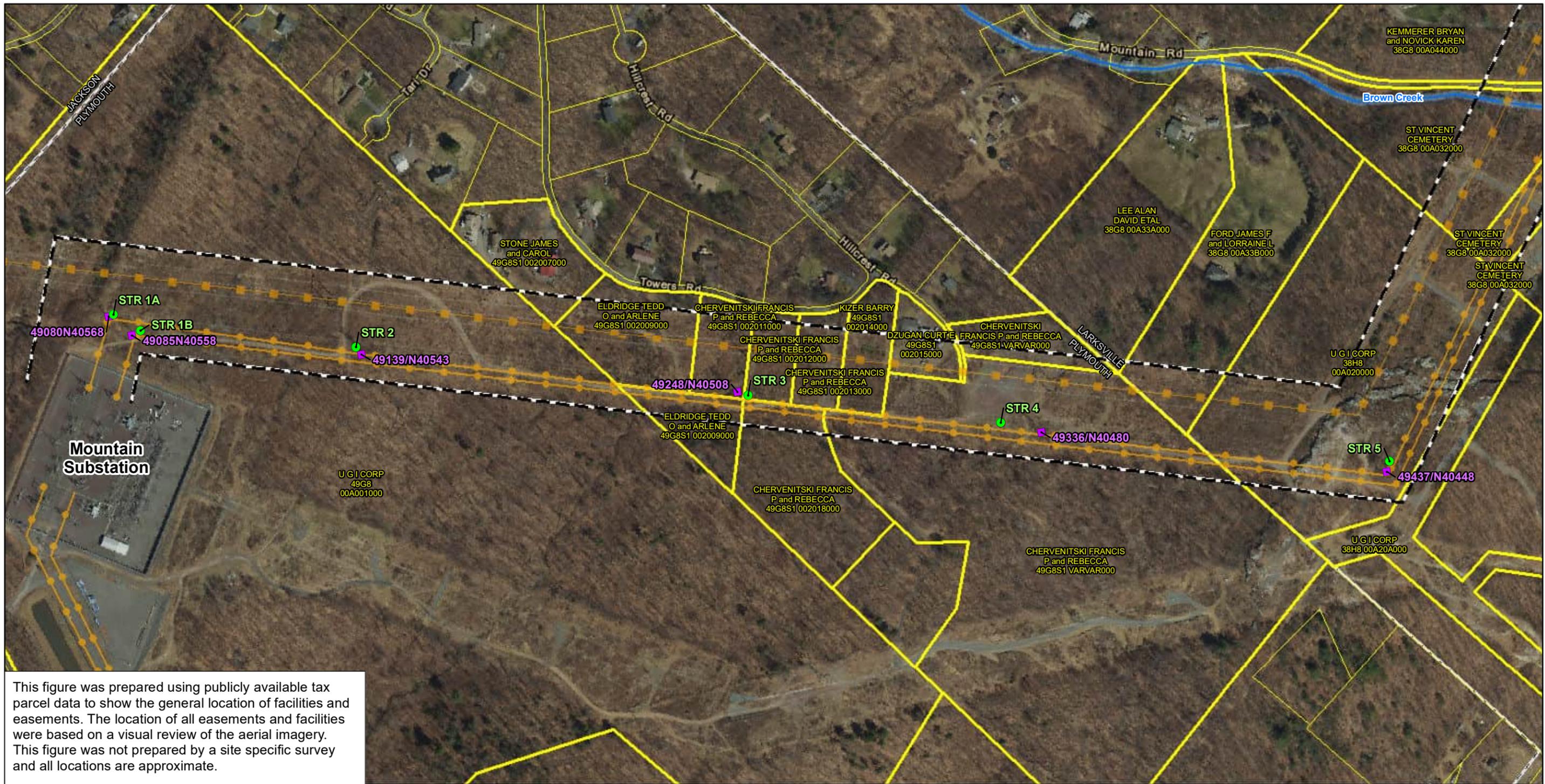
For all three areas, the PFBC recommended a conservation measure for work that will be conducted within the occupied range of the timber rattlesnake (*Crotalus horridus*). Per PFBC recommended measures, a snake biologist will be on site during construction to re-locate any snakes that are found along the project corridor. For the Mountain-Jenkins/Jenkins-Stanton 230 kV Double-Circuit Line and Mountain-Stanton/Jenkins-Stanton Double-Circuit Line sections, the PFBC also recommended a conservation measure to maintain a natural flow regime and high water quality which are important to maintaining habitats occupied by rare fish and mussels. The recommendation includes avoiding instream construction work to the maximum extent practicable and that that if instream work is anticipated, then a mussel salvage using a qualified mussel surveyor to relocate mussels from the area of direct impact is recommended. No instream work is anticipated for the Project.

Along this section of the Project, the PGC also reported that a threatened sensitive species may be located in the vicinity of the Project and further review is necessary to resolve potential impacts. Further coordination with the PGC concluded that no impacts to this species is anticipated.

PPL Electric will continue to consult with the jurisdictional agencies regarding potential impacts to protected species, complete all required surveys, obtain all necessary approvals, and permits for Project construction, and comply with all conditions placed on those permits.

Figure 3-1: Aerial Map of the Project





This figure was prepared using publicly available tax parcel data to show the general location of facilities and easements. The location of all easements and facilities were based on a visual review of the aerial imagery. This figure was not prepared by a site specific survey and all locations are approximate.

Legend

● Proposed Structure	Chapter 93 Designated Use Stream
○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

Notes:

- Existing structure locations and right-of-way were provided by PPL Electric in March 2023.
- Proposed structure locations were provided by PPL Electric Utilities in July 2023.
- Existing Transmission Lines provided by PPL Electric Utilities in April 2019.
- Luzerne County Parcel data was provided by PPL Electric Utilities in 2023.

NAD 1983 State Plane Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

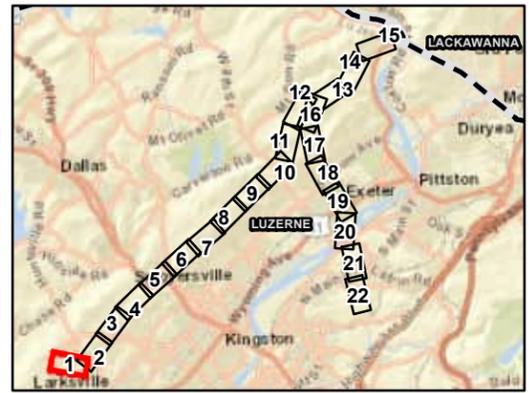


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 1 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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Legend

- Proposed Structure
- Existing Structure (To Remain)
- Existing Structure (To Be Replaced)
- PPL Electric 230kV ROW
- ▭ Parcel Boundary
- ▭ PA Municipalities
- Existing Transmission Lines
 - 69 kV
 - 230 kV
 - 500 kV

Chapter 93 Designated Use Stream

- Cold Water Fishes (CWF)
- Warm Water Fishes (WWF)
- Trout Stocking (TSF)
- ▨ NWI Wetlands
- ▨ 100-Year Floodplain
- ▨ Natural Area

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 Linear Unit: US Foot

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0 150 300 600
 Feet
 1 inch = 300 feet

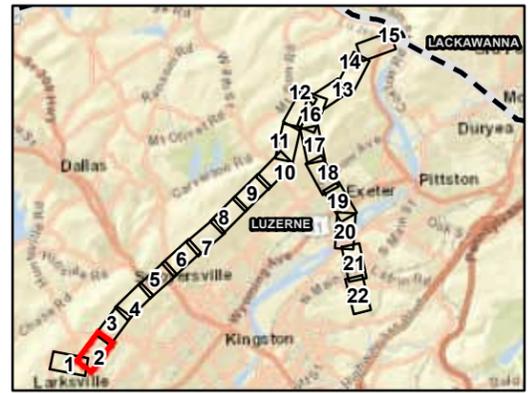
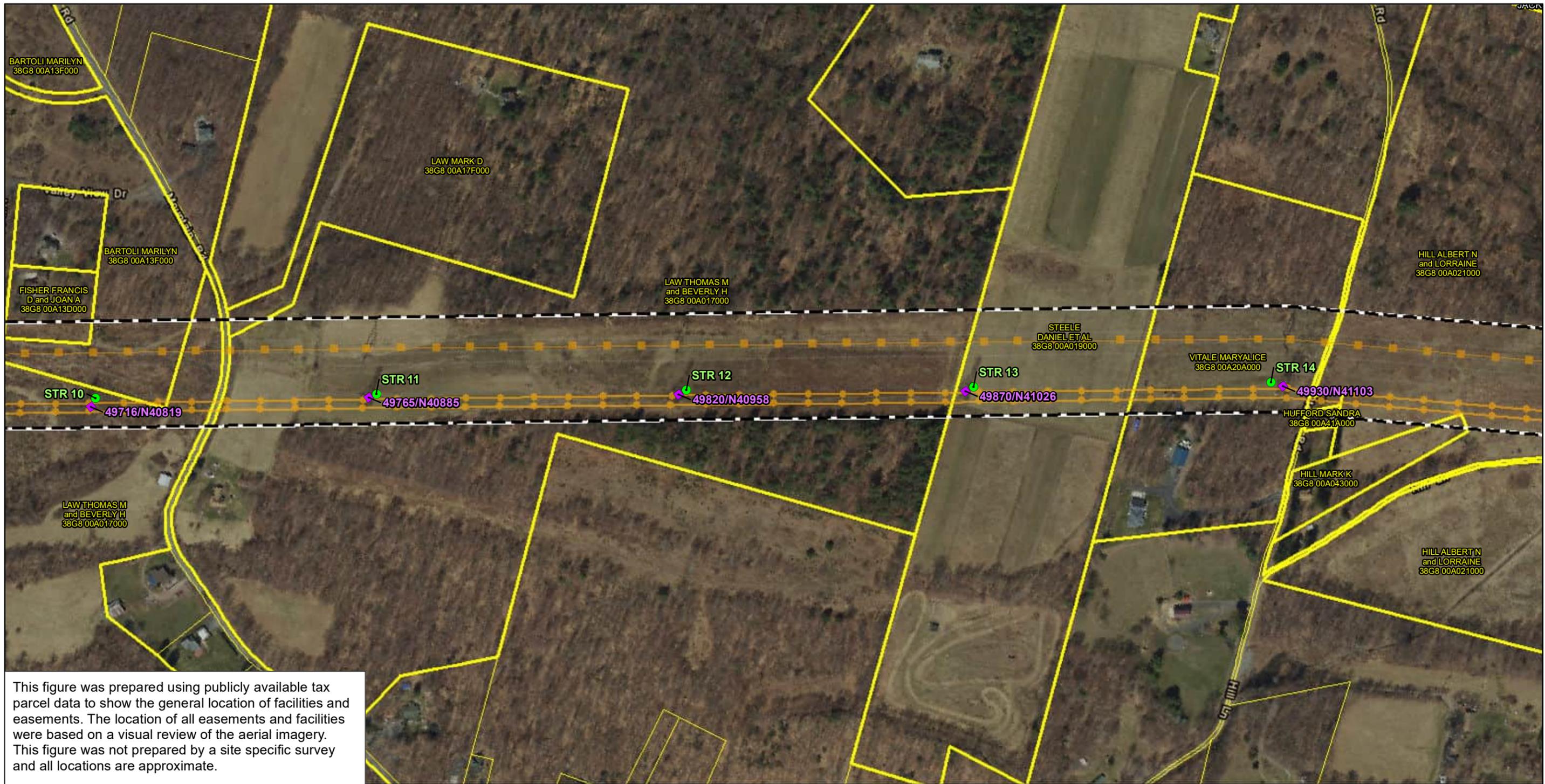


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
 Sheet 2 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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Legend

● Proposed Structure	Chapter 93 Designated Use Stream
○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
— Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

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 Linear Unit: US Foot

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0 150 300 600
 Feet
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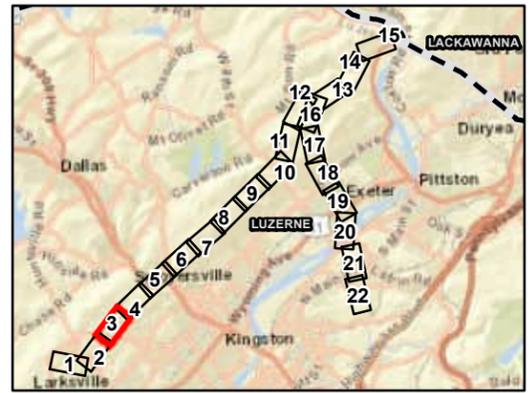
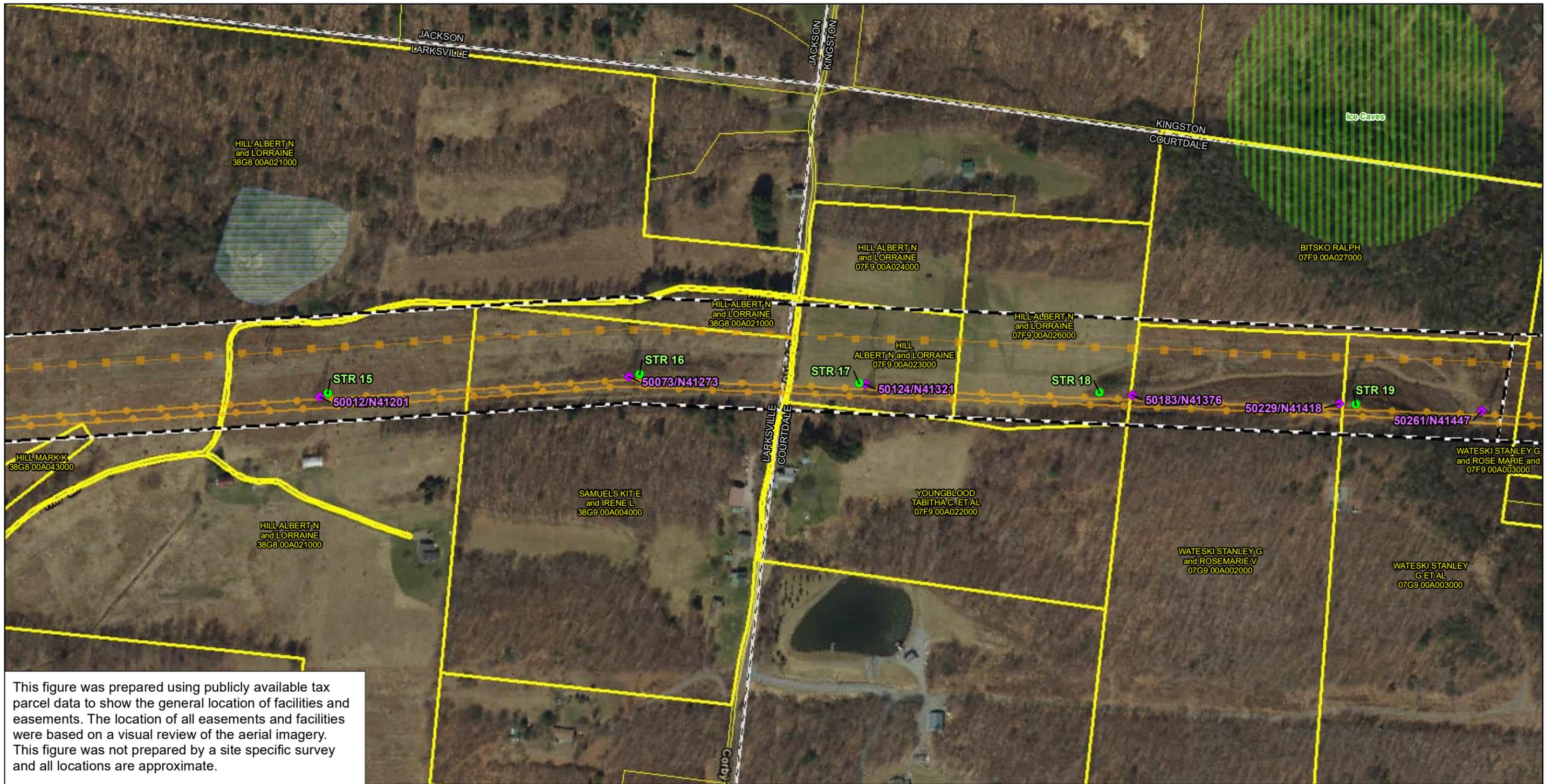


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 3 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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Legend

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■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
— Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

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References:
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1 inch = 300 feet

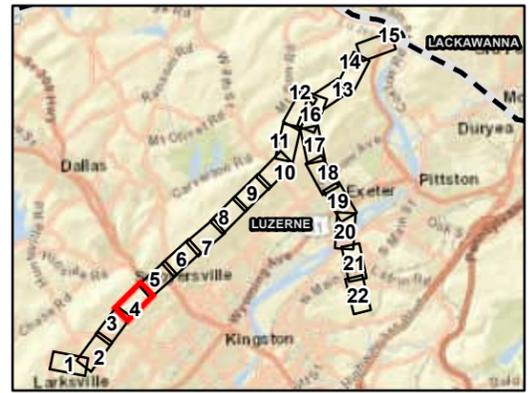


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 4 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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— PPL Electric 230kV ROW	— Trout Stocking (TSF)
□ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
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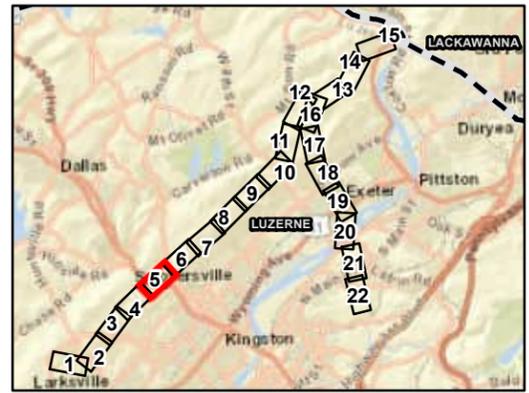
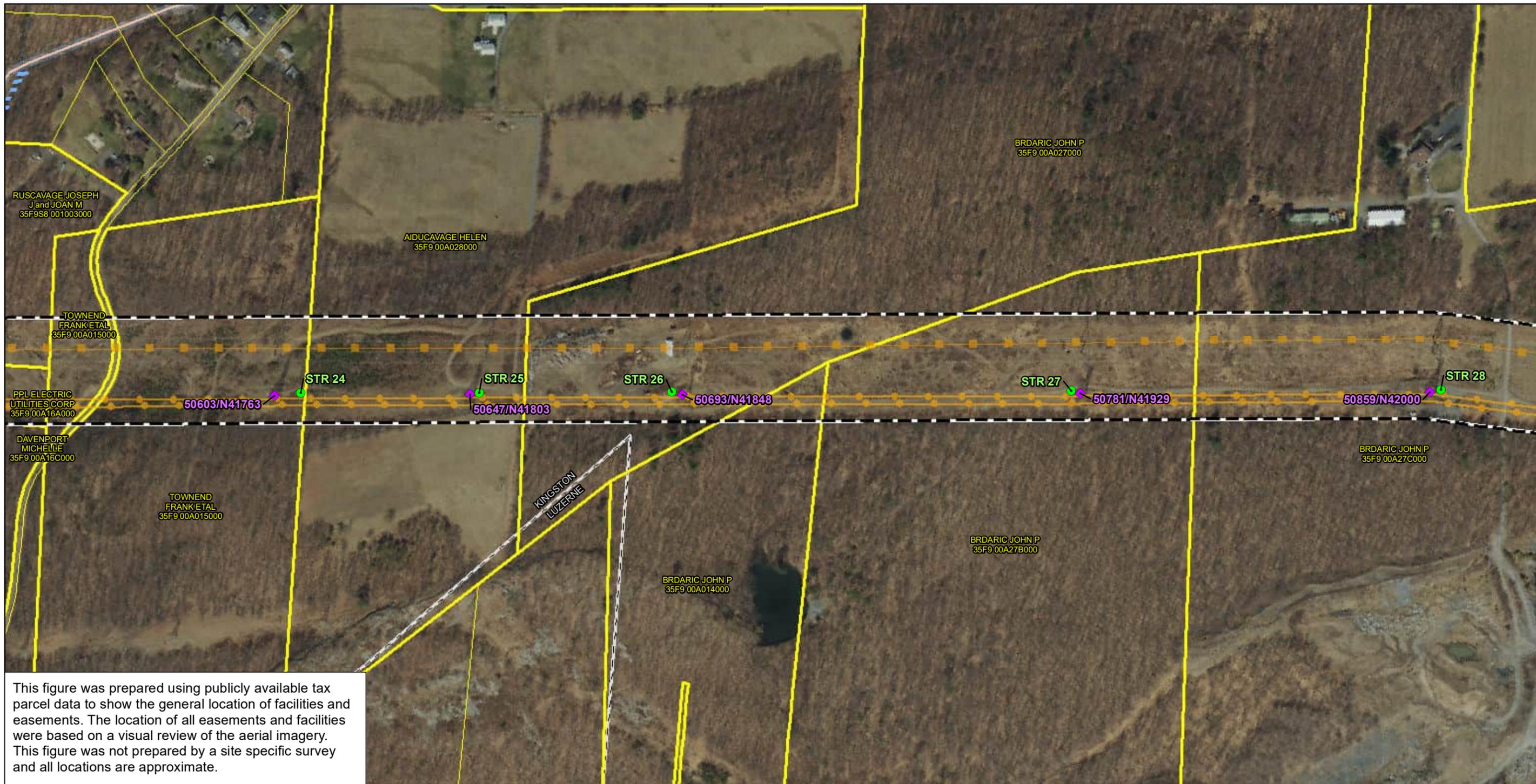


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 5 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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Legend

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■ Parcel Boundary	■ NWI Wetlands
— PA Municipalities	■ 100-Year Floodplain
— Existing Transmission Lines	■ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

Notes:

- Existing structure locations and right-of-way were provided by PPL Electric in March 2023.
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- Existing Transmission Lines provided by PPL Electric Utilities in April 2019.
- Luzerne County Parcel data was provided by PPL Electric Utilities in 2023.

NAD 1983 State Plane
 Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

0 150 300 600
 Feet
 1 inch = 300 feet

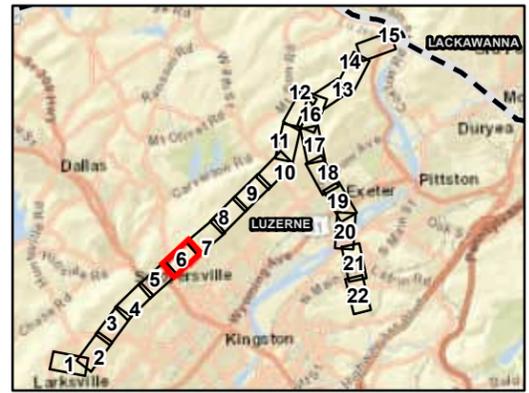


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 6 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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Legend

● Proposed Structure	Chapter 93 Designated Use Stream
○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

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NAD 1983 State Plane
Pennsylvania North FIPS 3701
Projection: Lambert Conformal Conic
Linear Unit: US Foot

References:
Ch. 93 Designated Use Streams (PADEP 2022)
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0 150 300 600
Feet
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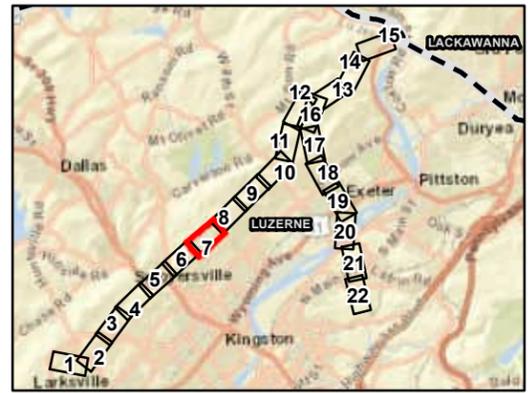


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 7 of 22
Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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— PPL Electric 230kV ROW	— Trout Stocking (TSF)
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NAD 1983 State Plane Pennsylvania North FIPS 3701
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 Linear Unit: US Foot

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 National Flood Hazard Layer (NFHL) (FEMA 2019)
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 0.5 foot Orthoimagery (PEMA 2021)

0 150 300 600
 Feet
 1 inch = 300 feet

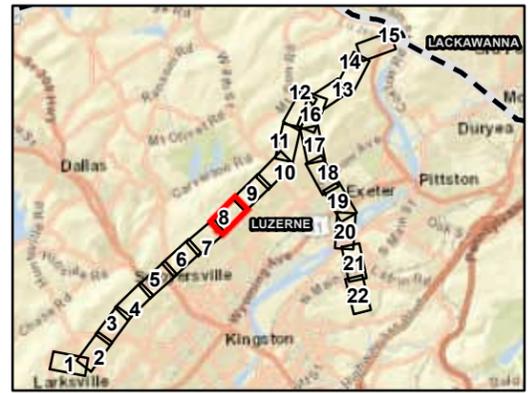


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 8 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
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 Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

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 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

0 150 300 600
 Feet
 1 inch = 300 feet

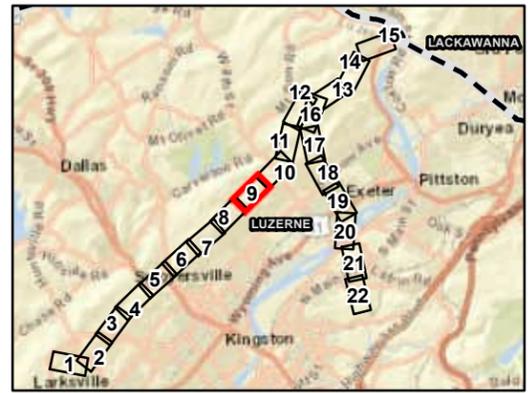
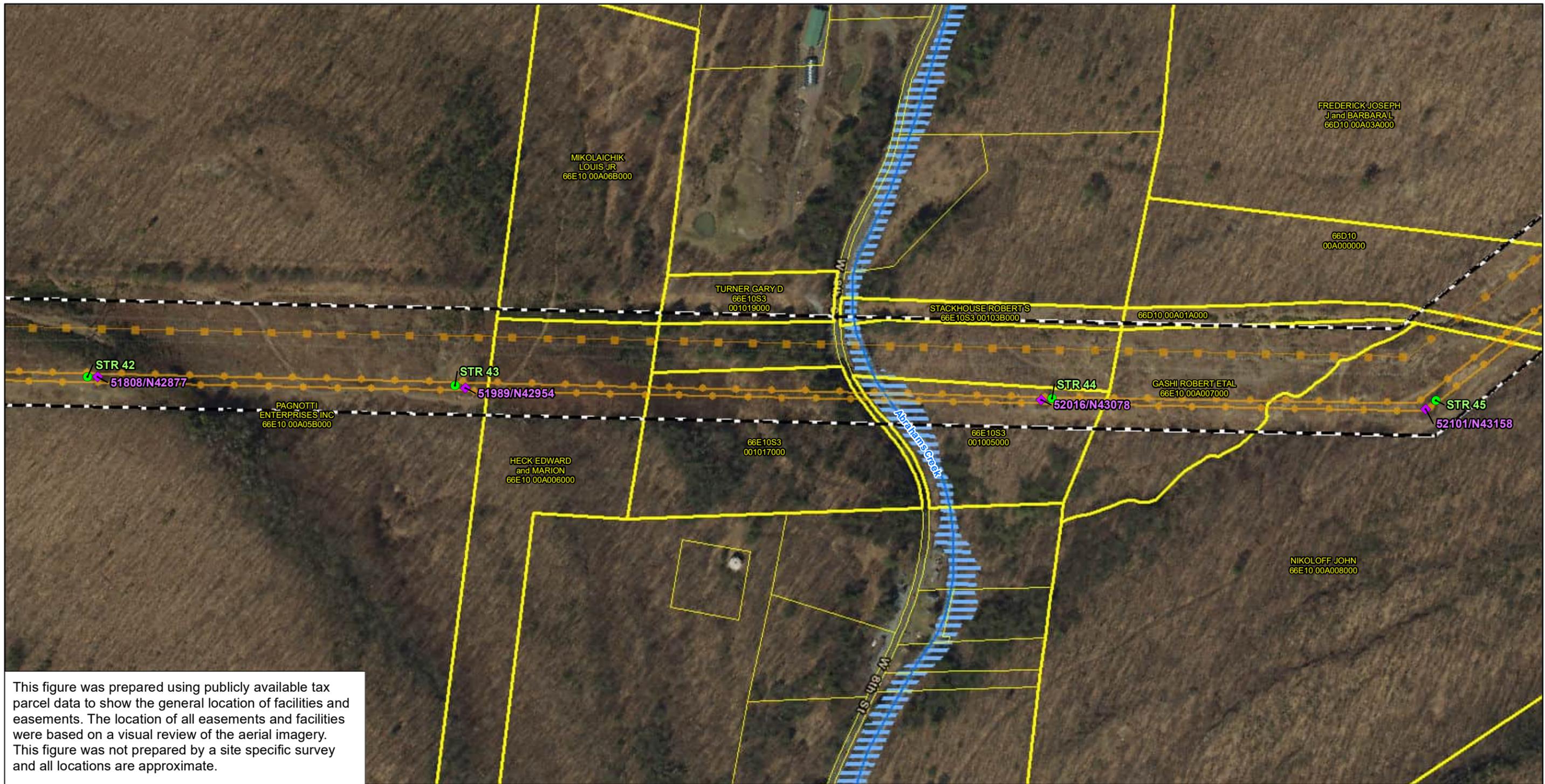


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 9 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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Legend

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○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
— Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

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NAD 1983 State Plane Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

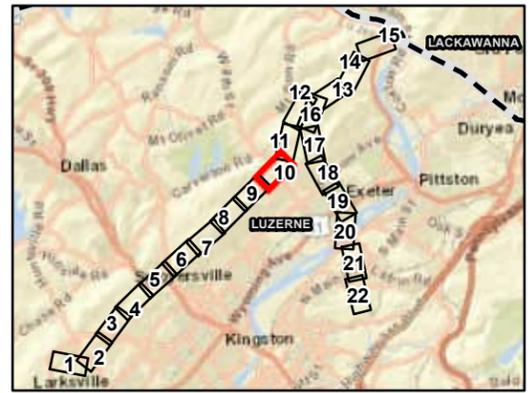


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 10 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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Legend

- Proposed Structure
- Existing Structure (To Remain)
- Existing Structure (To Be Replaced)
- PPL Electric 230kV ROW
- Parcel Boundary
- PA Municipalities
- Existing Transmission Lines
 - 69 kV
 - 230 kV
 - 500 kV
- Chapter 93 Designated Use Stream
 - Cold Water Fishes (CWF)
 - Warm Water Fishes (WWF)
 - Trout Stocking (TSF)
 - NWI Wetlands
 - 100-Year Floodplain
 - Natural Area

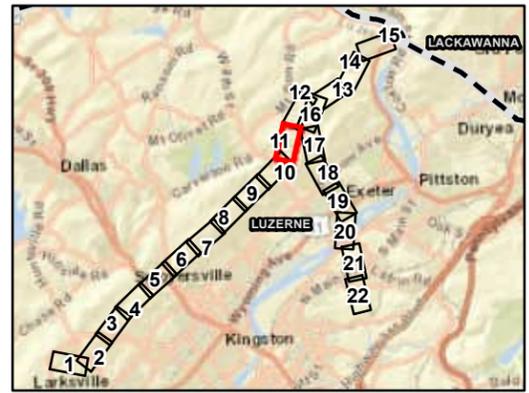
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- Existing Transmission Lines provided by PPL Electric Utilities in April 2019.
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NAD 1983 State Plane Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

0 150 300 600
 Feet
 1 inch = 300 feet



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FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
 Sheet 11 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT Checked By: DJY/BAB
 Job: 60704087 Date: 8/15/2024



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Legend

● Proposed Structure	Chapter 93 Designated Use Stream
○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
— Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

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NAD 1983 State Plane
 Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
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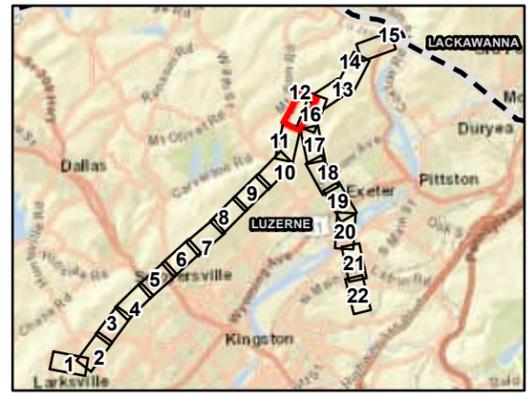
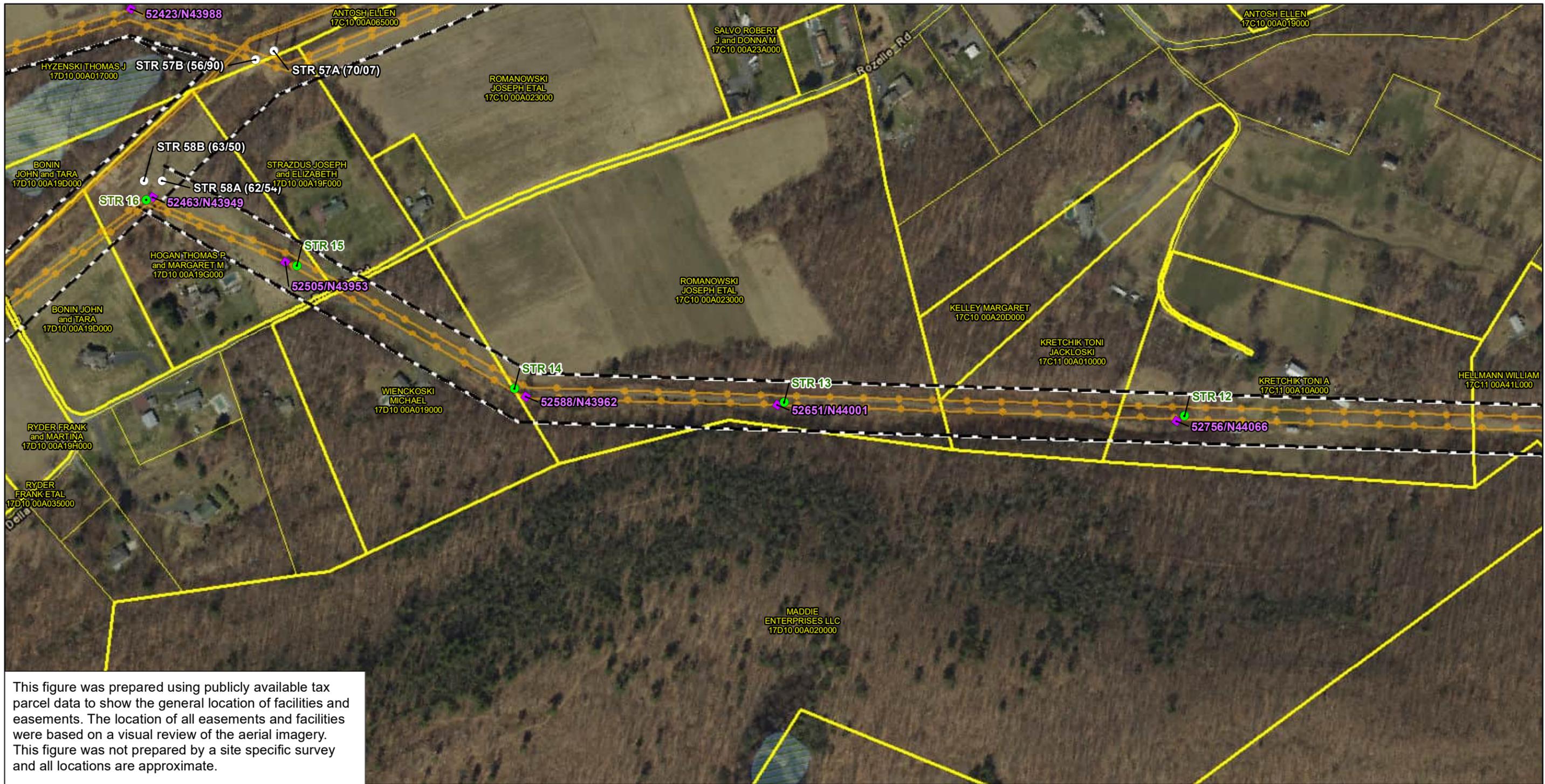


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
 Sheet 12 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



Legend

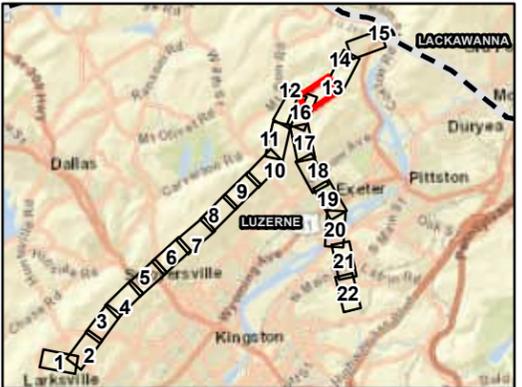
● Proposed Structure	Chapter 93 Designated Use Stream
○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

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NAD 1983 State Plane
 Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

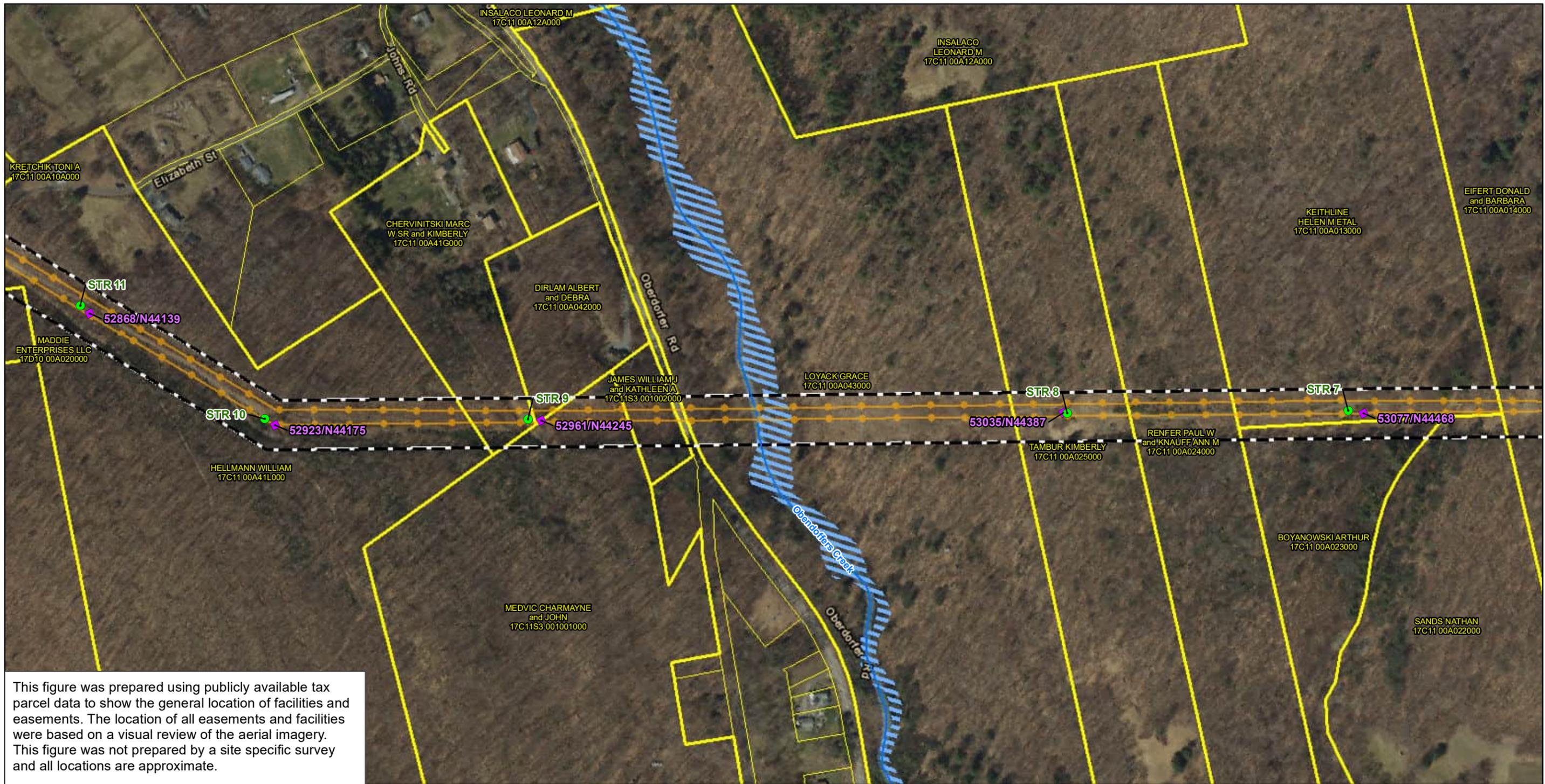


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 PPL Electric Utilities

FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 13 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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Legend

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○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
— Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
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NAD 1983 State Plane Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

0 150 300 600
 Feet
 1 inch = 300 feet

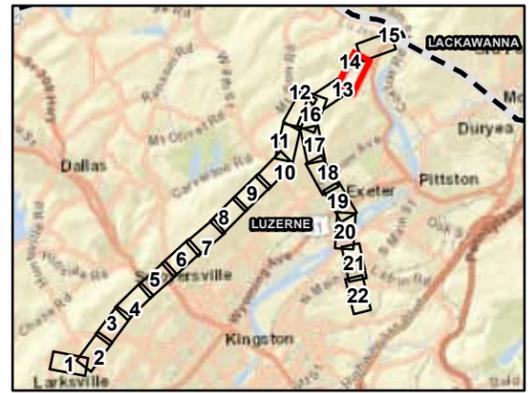
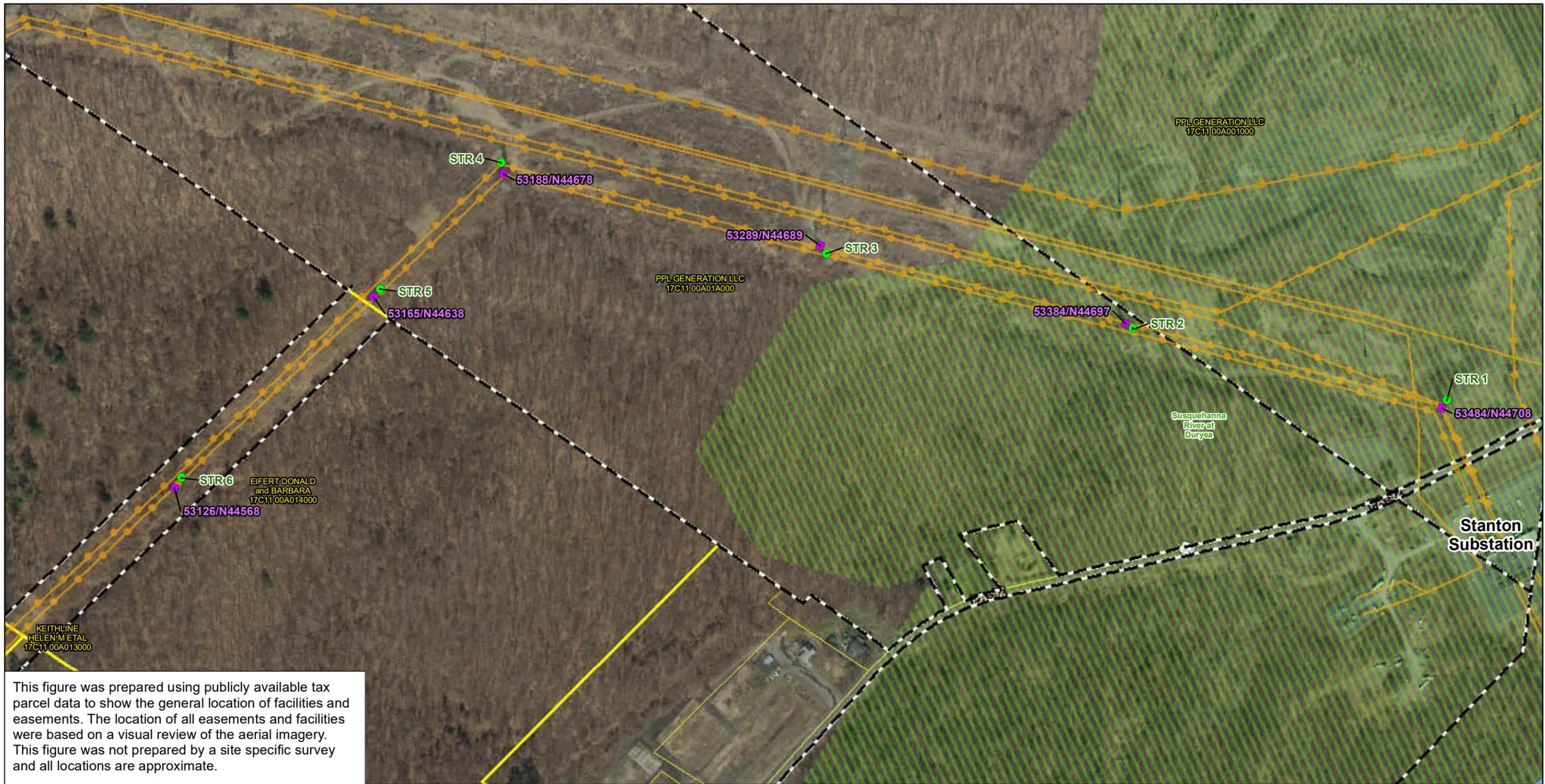


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 14 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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Legend

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○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
Existing Transmission Lines	▨ Natural Area
— 69 kV	
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NAD 1983 State Plane
 Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
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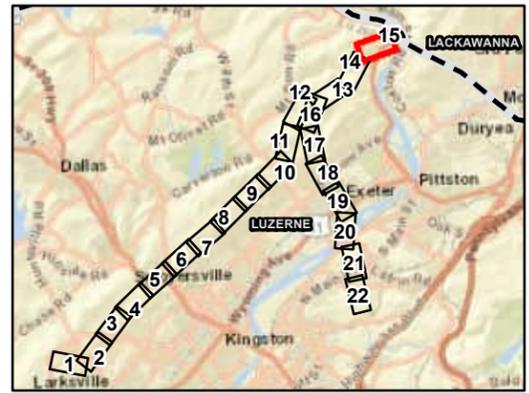


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 15 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



Legend

● Proposed Structure	Chapter 93 Designated Use Stream
○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
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— 69 kV	
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NAD 1983 State Plane Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

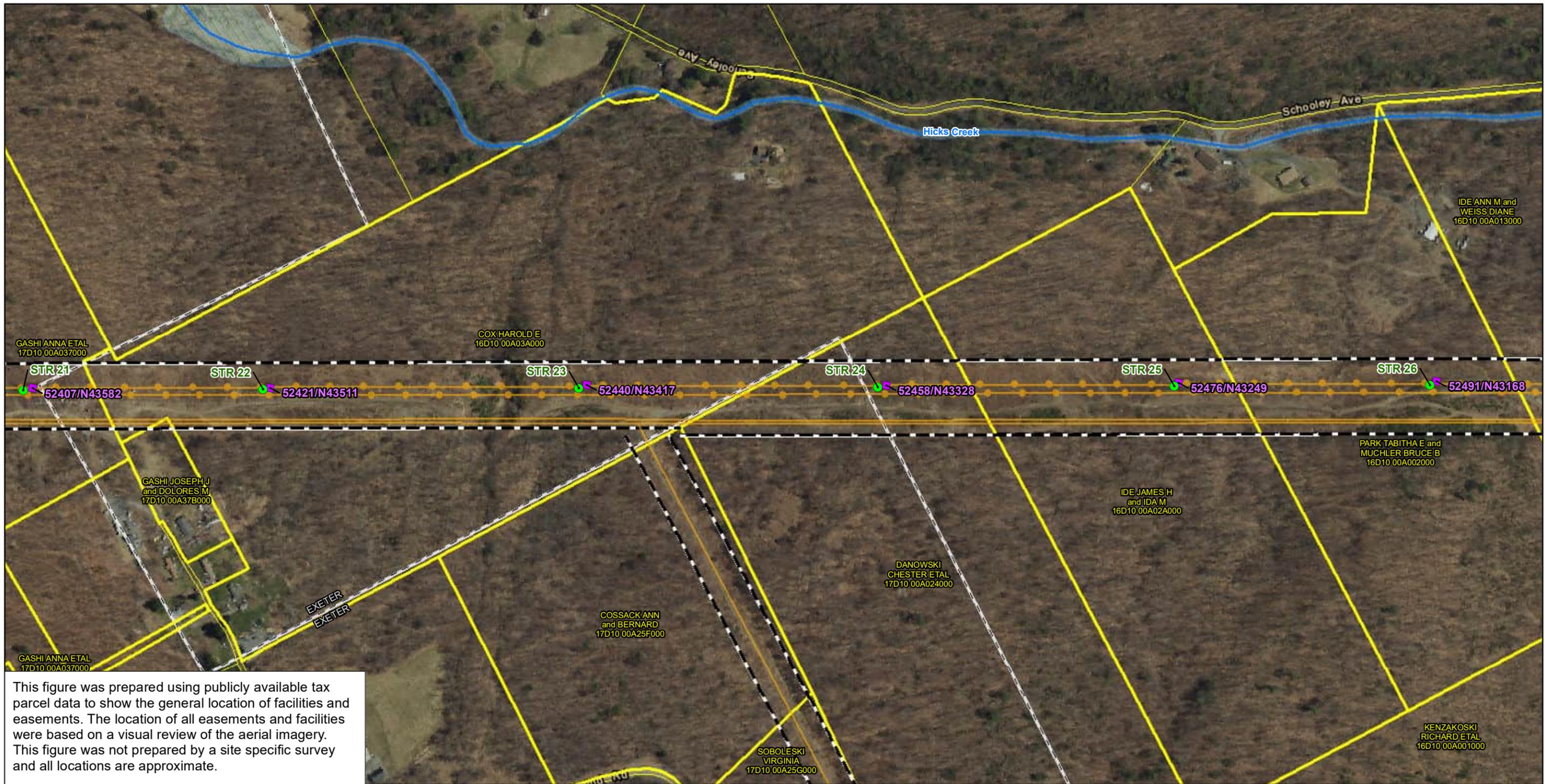
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 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)



FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 16 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
□ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

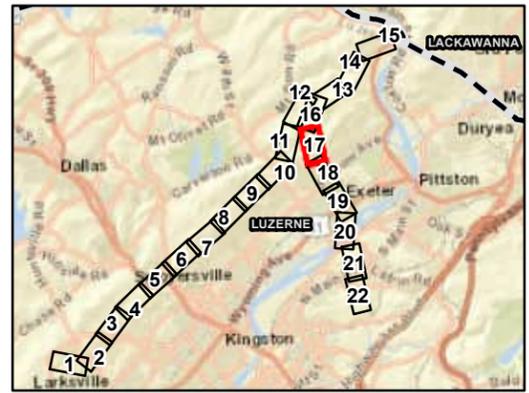
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NAD 1983 State Plane
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 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

0 150 300 600
 Feet
 1 inch = 300 feet

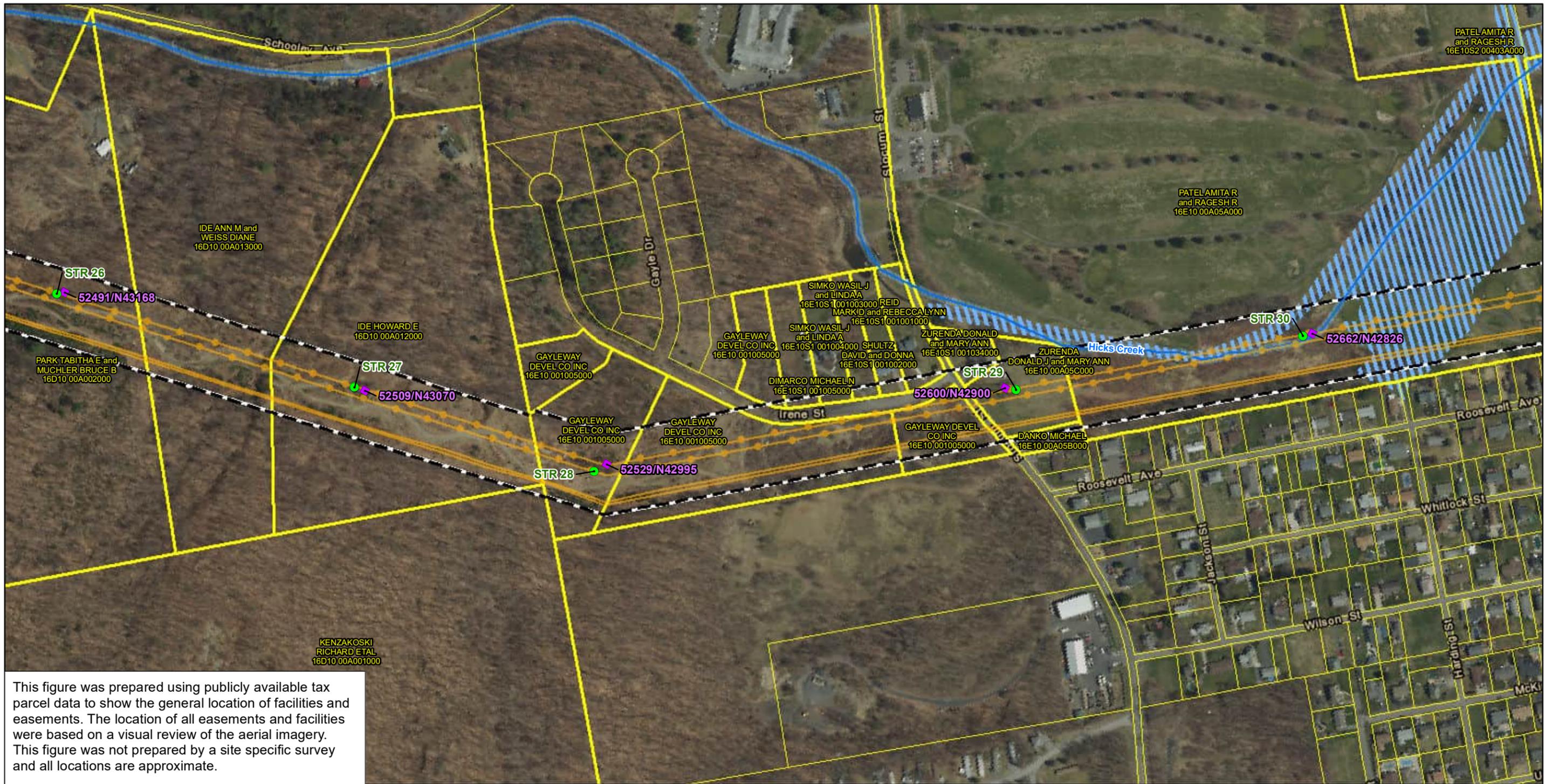


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 PPL Electric Utilities

FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 17 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



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Legend

- Proposed Structure
- Existing Structure (To Remain)
- Existing Structure (To Be Replaced)
- PPL Electric 230kV ROW
- Parcel Boundary
- PA Municipalities
- Existing Transmission Lines
 - 69 kV
 - 230 kV
 - 500 kV
- Chapter 93 Designated Use Stream
 - Cold Water Fishes (CWF)
 - Warm Water Fishes (WWF)
 - Trout Stocking (TSF)
 - NWI Wetlands
 - 100-Year Floodplain
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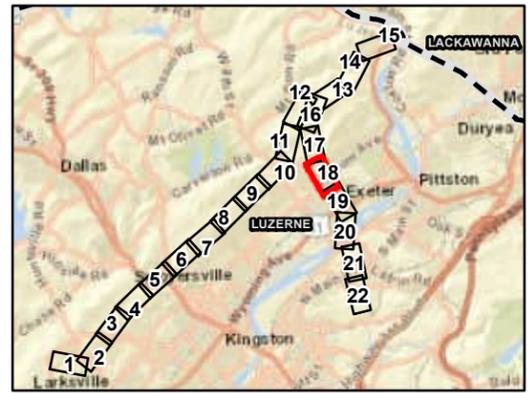
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NAD 1983 State Plane Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
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 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

0 150 300 600
 Feet
 1 inch = 300 feet

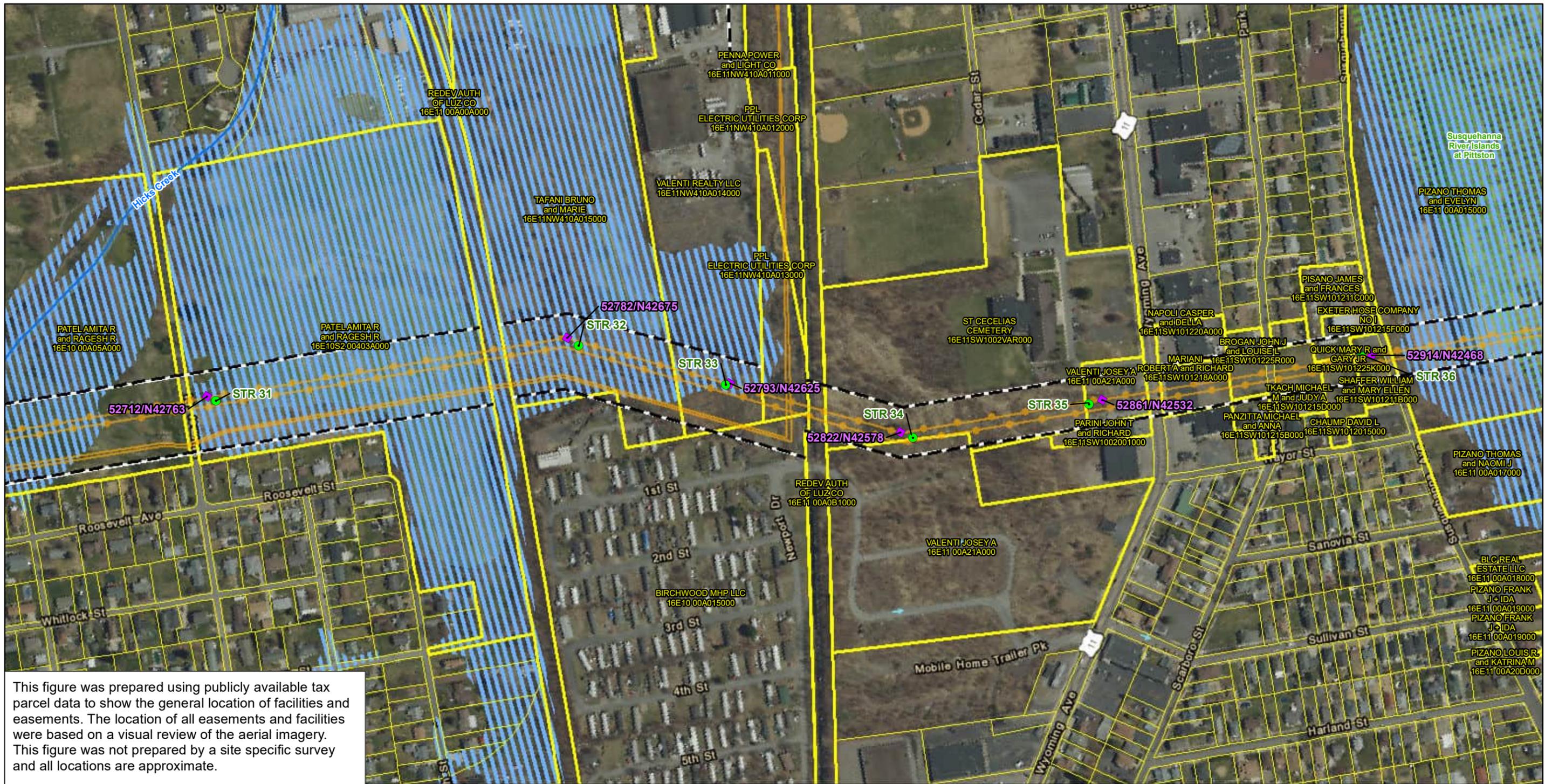


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 PPL Electric Utilities

FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 18 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT
 Checked By: DJY/BAB
 Job: 60704087
 Date: 8/15/2024



Legend

● Proposed Structure	Chapter 93 Designated Use Stream
○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
— Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

Notes:

- Existing structure locations and right-of-way were provided by PPL Electric in March 2023.
- Proposed structure locations were provided by PPL Electric Utilities in July 2023.
- Existing Transmission Lines provided by PPL Electric Utilities in April 2019.
- Luzerne County Parcel data was provided by PPL Electric Utilities in 2023.

NAD 1983 State Plane Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

0 150 300 600
 Feet
 1 inch = 300 feet

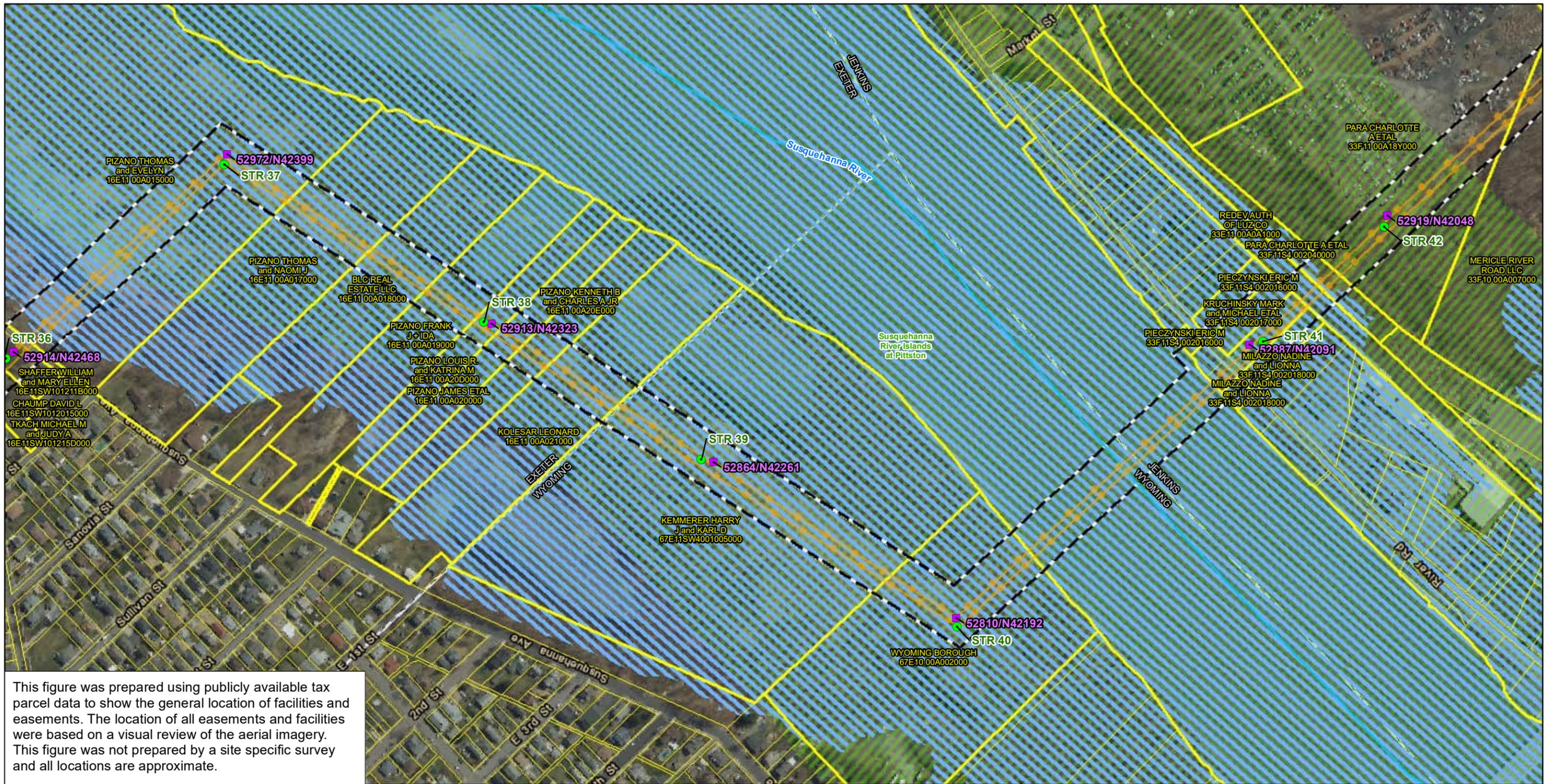


ppl
 PPL Electric Utilities

FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
 Sheet 19 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



This figure was prepared using publicly available tax parcel data to show the general location of facilities and easements. The location of all easements and facilities were based on a visual review of the aerial imagery. This figure was not prepared by a site specific survey and all locations are approximate.

Legend

● Proposed Structure	Chapter 93 Designated Use Stream
○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
■ Existing Structure (To Be Replaced)	— Warm Water Fishes (WWF)
— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
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— 69 kV	
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NAD 1983 State Plane
 Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

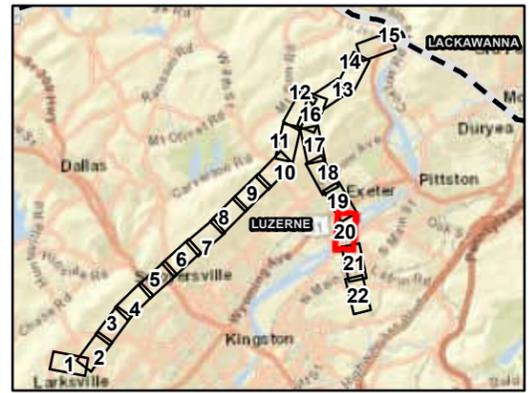


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 20 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024



This figure was prepared using publicly available tax parcel data to show the general location of facilities and easements. The location of all easements and facilities were based on a visual review of the aerial imagery. This figure was not prepared by a site specific survey and all locations are approximate.

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○ Existing Structure (To Remain)	— Cold Water Fishes (CWF)
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— PPL Electric 230kV ROW	— Trout Stocking (TSF)
▭ Parcel Boundary	▨ NWI Wetlands
▭ PA Municipalities	▨ 100-Year Floodplain
— Existing Transmission Lines	▨ Natural Area
— 69 kV	
— 230 kV	
— 500 kV	

Notes:

- Existing structure locations and right-of-way were provided by PPL Electric in March 2023.
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- Existing Transmission Lines provided by PPL Electric Utilities in April 2019.
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NAD 1983 State Plane Pennsylvania North FIPS 3701
 Projection: Lambert Conformal Conic
 Linear Unit: US Foot

References:
 Ch. 93 Designated Use Streams (PADEP 2022)
 NWI Wetlands (2021)
 National Flood Hazard Layer (NFHL) (FEMA 2019)
 Natural Areas (PNHP 2020)
 0.5 foot Orthoimagery (PEMA 2021)

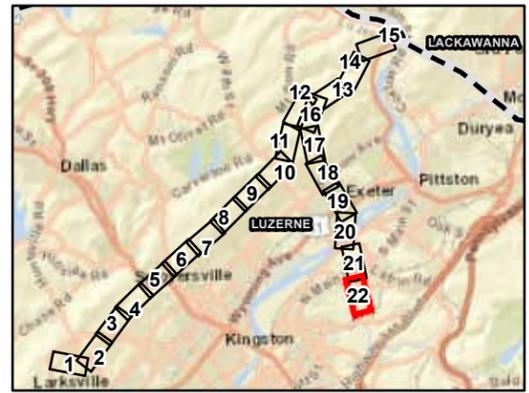


FIGURE 3-1
Aerial Map of the Project
Mountain-Jenkins-Stanton
230kV COR-TEN Rebuild Project
Sheet 22 of 22
 Luzerne County, Pennsylvania

Prepared By: AECOM Technical Services, Inc
 Conshohocken, Pennsylvania

Prepared By: CJT	Checked By: DJY/BAB
Job: 60704087	Date: 8/15/2024

**PPL ELECTRIC
ATTACHMENT 4**

MOUNTAIN-JENKINS-STANTON 230 kV COR-TEN® REBUILD PROJECT

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1.0 DESIGN CONSIDERATIONS

PPL Electric Utilities Corporation’s (“PPL Electric” or the “Company”) new and rebuilt transmission lines are designed according to, and generally exceed, all National Electric Safety Code (“NESC”) minimum standards. The NESC is a set of rules guiding safety standards during the installation, operation, and maintenance of electric power lines. The NESC contains the basic provisions considered necessary for the safety of employees and the public. Although it is not intended as a design specification, its provisions establish minimum design requirements. PPL Electric has developed design specifications and safety rules which meet or surpass all requirements specified by the NESC.

The NESC includes loading requirements and clearances for the design, construction, and operation of power lines. The "loads" on conductors and supporting structures are the mechanical forces that develop from the weight of the conductors, the weight of ice on the conductors, plus wind pressure on the conductors and supporting structures. Loading requirements are the loads on the conductors and structures that are anticipated assuming certain ice and wind conditions. Loading requirements always contain "safety factors" to allow for unknown or unanticipated contingencies. The clearances and loading requirements contained in the NESC are designed to maintain public safety.

The NESC specifies strength and loading rules based on three different “grades of construction” for conductors and supporting structures:

- Grade B – This grade of construction provides the highest margin of safety and is required when the pole supports spans that cross limited access highways, railroads, and waterways.
- Grade C – This grade of construction is most common and provides a basic margin of safety. It is often utilized for the typical power and joint-use distribution pole.
- Grade N – This is the lowest grade of construction and is most often used for emergency and temporary construction.

PPL Electric designs all its transmission lines for Grade B construction. The use of Grade B design and construction translates to higher levels of structural reliability and safety to withstand the environmental conditions of ice and/or wind loading.

PPL Electric’s rigorous design standards are further incorporated into the parameters utilized to account for ice and wind loadings on the wires and structure. Structure loading and line designs

must accommodate a variety of operating conditions as different ice and wind combinations can impact the conductor sags and tensions of the line. PPL Electric’s transmission lines are designed to exceed NESC requirements by accounting for additional load cases due to various ice and wind loading conditions beyond what is required by NESC. This means that PPL Electric lines are designed to operate safely and reliably during extreme inclement weather. In addition, PPL Electric design standards include a clearance to ground buffer in excess of NESC required clearances to account for construction and design tolerances and the filling or grading of land within the right-of-way by property owners. This buffer also significantly reduces the risk of a property owner inadvertently contacting a transmission line. This has occurred on PPL Electric’s system in the past and higher clearances minimize the likelihood of future occurrences.

TABLE 4-1: 69 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	19.2 Ft.	22.2 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	19.2 Ft.	22.2 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	15.2 Ft.	22.2 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	27.2 Ft.	30.2 Ft.

TABLE 4-2: 138 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	20.6 Ft.	23.6 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	20.6 Ft.	23.6 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	16.6 Ft.	23.6 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	28.6 Ft.	31.6 Ft.

TABLE 4-3: 230 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	22.5 Ft.	25.5 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	22.5 Ft.	25.5 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	18.5 Ft.	25.5 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	30.5 Ft.	33.5 Ft.

TABLE 4-4: 500 kV Vertical Clearance to Ground

Surface Underneath Conductors	NESC Standard Clearance	PPL Conductor Clearances
Roads, streets, and other areas subject to truck traffic	28.4 Ft.	31.4 Ft.
Other land traversed by vehicles such as cultivated grazing, forest, orchards, etc.	28.4 Ft.	31.4 Ft.
Spaces and ways subject to pedestrians or restricted traffic only	24.4 Ft.	31.4 Ft.
Track rails of railroads (except electrified railroads using overhead trolley conductors)	36.4 Ft.	39.4 Ft.

A relay protection system is also used on PPL Electric’s transmission lines to protect public safety, as well as the equipment on the transmission system. The purpose of relay protection is to automatically de-energize the line in the unlikely event that the line or supporting structure fails and the line contacts the ground.

2.0 PERIODIC MAINTENANCE PROGRAM ON ALL TRANSMISSION LINES

To ensure continued public safety and integrity of service, a periodic maintenance and inspection program is implemented for every transmission line. The program is administered using helicopter patrols, with supplemental foot patrols as needed. Helicopter patrols are performed on all lines on a predetermined frequency, depending on voltage level. The two-man helicopter crew flies parallel to and above the line so that the observer can look for signs of line damage or deterioration and observe clearances between vegetation and conductors. The observations are included in a report that is forwarded to the appropriate department for corrective action.

3.0 PERSONNEL SAFETY RULES

Overall, PPL Electric designs and constructs projects with high regard to both public and employee safety and follows or exceeds all codes and requirements. The following are a few examples of PPL Electric’s safety rules that demonstrate its dedication to employee and contractor safety:

- Procedures have been developed to allow work to be performed on energized facilities in a safe manner. When lines or apparatus are removed from service to be worked on, the Energy Control Process system is applied. This system provides that a red tag must be physically placed on the control handle of the de-energized equipment.
- The red tag may be removed only after proper authorization to energize the equipment has been received.
- Various other tags are used for limited operations and informational purposes.
- Employees or contractors will not apply or remove a tag or change the status of tagged equipment unless authorized.

- Temporary safety grounds are used on de-energized facilities for employee lineman safety during maintenance, construction, or reconstruction work. Safety grounds are wires connecting the de-energized facility to an electrical ground. If the facility should be energized, the safety grounds will divert the current directly to ground and reduce the likelihood of personal injury.
- Before applying grounds, a voltage test is performed to confirm that the line is de-energized. The voltage test device is checked before and after use to assure reliability.
- Poles or structures are inspected and examined for structural integrity before climbing. If there is any reason to believe that a pole is unsafe, it is stabilized before work is performed. Appropriate safety gear in the form of body belts, safety straps, hard hats, gloves, etc., is worn by linemen during line work activity.

4.0 MAGNETIC FIELD MANAGEMENT PLAN

PPL Electric’s Magnetic Field Management Program is applied to new and reconstructed transmission line projects. Although there is no current scientific evidence demonstrating that magnetic fields cause any adverse health effects or pose a health or safety threat to the public, PPL Electric has established a policy to design its new and rebuilt transmission lines to reduce magnetic fields. To lower magnetic field exposures, the program generally prescribes the use of a line design that provides ground clearances higher than the required minimum NESC ground clearance and reverse phasing of new double circuit lines where it is feasible to do so at low or no cost. The implementation of additional modifications to reduce magnetic field levels is considered, provided those modifications can be made at low or no cost and will not interfere with the operation of the line.

The program will be applied to this Project and designed with clearances that are at least three feet higher than NESC standards.

**PPL ELECTRIC
ATTACHMENT 5**

MOUNTAIN-JENKINS-STANTON 230 kV COR-TEN® REBUILD PROJECT

STATE AGENCIES

Pennsylvania Bureau of Investigation and Enforcement
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
2nd Floor, Room-N201
Harrisburg, Pennsylvania 17120
Attn: Alison Kaster

Pennsylvania Department of Environmental Protection
400 Market Street
10th Floor Rachel Carson State Office Building
Harrisburg, Pennsylvania 17101
Attn: Regional Permit Coordination Office

Pennsylvania Department of Transportation
Keystone Building
400 North Street, Ninth Floor
Harrisburg, Pennsylvania 17120
Attn: Jeffrey Spotts, Chief Counsel

Pennsylvania Historical and Museum Commission
Bureau for Historic Preservation
Commonwealth Keystone Building, Second Floor
400 North Street
Harrisburg, Pennsylvania 17120-0093
Attn: Ms. Emma Diehl, Division Manager

Pennsylvania Department of Conservation and Natural Resources
Rachel Carson State Office Building
400 Market Street
Harrisburg, Pennsylvania 17105-8767
Attn: Rebecca Bowen, Ecological Services Section Chief

Pennsylvania Game Commission
2001 Elmerton Avenue
Harrisburg, Pennsylvania 17110-9797
Attn: David Gustafson, Director, Bureau of Wildlife Habitat Management
Pennsylvania Fish and Boat Commission
450 Robinson Lane
Bellefonte, Pennsylvania 16823-9620
Attn: Christopher A. Urban, Chief, Natural Diversity Section

Pennsylvania Office of Consumer Advocate
555 Walnut Street
5th Floor Forum Place
Harrisburg, Pennsylvania 17101-1923
Attn: Patrick Cicero, Consumer Advocate

Pennsylvania Office of Small Business Advocate
555 Walnut Street
1st Floor Forum Place
Harrisburg, Pennsylvania 17101
Attn: NazAarah Sabree, Small Business Advocate

FEDERAL AGENCIES

U.S. Army Corps of Engineers
Baltimore District
2 Hopkins Plaza
Baltimore, Maryland 21201
Attn: Public Affairs Office

U.S. Fish and Wildlife Service
Pennsylvania Field Office
110 Radnor Road, Suite 101
State College, Pennsylvania 16801
Attn: Lesa Lindsay

COUNTY AGENCIES

Luzerne County Conservation District
325 Smiths Pond Road
Shavertown, Pennsylvania 18708
ATTN: Josh Longmore, Executive Director

Luzerne County Planning Commission

Penn Place Building
20 North Pennsylvania Avenue
Wilkes-Barre, Pennsylvania 19712
ATTN: N. Brian Caverly, Chair

MUNICIPALITIES

Luzerne County

Courtdale Borough
5 Blackman Street
Courtdale, Pennsylvania 18704
ATTN: Carl Hodorowski, Borough President

Exeter Borough
1101 Wyoming Avenue
Exeter, Pennsylvania 18643
ATTN: Joseph Pizano, Chair

Exeter Township (Luzerne County)
2305 State Route 92 Hwy
Harding, Pennsylvania 18643
ATTN:: Nancy Redmond, Chair

Jenkins Township
46 ½ Main Street,
Inkerman, Pennsylvania 18640
ATTN: Stanley E. Rovinski, Chair

Kingston Township
Back Mountain, 180 East Center Street,
Shavertown, Pennsylvania 18708
ATTN: Thomas Ketchner, Chair

Larksville Borough
211 East State Street,
Larksville Pennsylvania, 18704
ATTN: Michael Lehman, President of Council

Plains Township
126 North Main Street,
Wilkes-Barre, Pennsylvania 18705
ATTN: Gerald Yozwiak, Chair

Plymouth Township
925 West Main Street

Plymouth, Pennsylvania 18651
ATTN: James Murphy, Chair

Swoyerville Borough
675 Main Street,
Swoyerville, Pennsylvania 18704
ATTN: Pete Cwalina, Jr., Borough Council President,

West Wyoming Borough
464 West 8th Street,
West Wyoming, Pennsylvania 18644
ATTN: Gary Stavish, Chair

Wyoming Borough
277 Wyoming Avenue,
Wyoming, Pennsylvania 18644
ATTN: Joseph Dominick, Mayor

LANDOWNERS

1845 SUSQUEHANNA AVE LLC 959 WYOMING AVE EXETER, PA 18643-1102	4G REALTY LLC 164 S HIGHLAND DR JENKINS TOWNSHIP, PA 18640-3249
ANTHONY W ACERNESE 1189 ROZELLE RD HARDING, PA 18643-2918	JAMES & SUSAN ANTOSH 1079 ROZELLE RD HARDING, PA 18643-2916
ARCHITECTURE & ENGINEERING GROUP 140 MAFFETT ST PLAINS, PA 18705-1000	BYRON EARL ATHERHOLT 633 CAMPGROUND RD HARDING, PA 18643-7045
JOHN P & ELLEN M BABUSCAK 109 WYNDTREE DR WILKES BARRE, PA 18702-2750	WILLIAM & ANDREA BALAVAGE 329 BUNKER HILL RD WYOMING, PA 18644-9380
BANK OF NY MELLON SERIE 2006-2 3217 DECKER LAKE DR SALT LAKE CITY, UT 84119-3284	MARILYN & HASHGEN, CARL BARTOLI 264 S MOUNTAIN BLVD MOUNTAIN TOP, PA 18707-1914
BIRCHWOOD VILLAGE MHC LLC 5567 RESEDA BLVD, 330 TARZANA, CA 91356-2673	CHANNING ELIZABETH & RICHARD BOBACK 500 MOUNTAIN RD LARKSVILLE, PA 18651-4220
SWOYERSVILLE BORO 675 MAIN ST SWOYERVILLE, PA 18704-1258	BRDARIC EXCAVATING INC 913 MILLER ST LUZERNE, PA 18709-1131
JOHN P BRDARIC & JAMES A BRDARIC-FEDOR 913 MILLER ST LUZERNE, PA 18709-1131	ANNA BRUNS 2137 SCHOOLEY RD HARDING, PA 18643-2911
JEFFREY M & AMY ANN CEGELKA RR 4 BOX 338A WEST PITTSSTON, PA 18643-9302	FRANCIS P & REBECCA CHERVENITSKI 114 VINE ST PLYMOUTH, PA 18651-2443

MARC W & KIMBERLY A CHERVINITSKI 347 JOHNS RD HARDING, PA 18643-7124	MICHAEL CIANNILLI & JOANNA PECHAL 604 CAMPGROUND RD HARDING, PA 18643-7046
TIMOTHY J CONNOLLY 481 UNION ST LUZERNE, PA 18709-1215	ANN & BERNARD COSSACK 319 DRAKE ST OLD FORGE, PA 18518-2338
LEE DANIEL CULVER & TAYLOR MICHELLE 434 UPPER DEMUNDS RD DALLAS, PA 18612-9079	DANKO, MICHAEL & MICHELLE 93 SLOCUM AVE EXETER, PA 18643
CHESTER DANOWSKI 267 MOSKALUK RD BERWICK, PA 18603-6423	MICHELLE DAVENPORT 12 HIGHWOODS RD WYOMING, PA 18644-9330
KELLY D DEJESUS 32 PARK LN EXETER, PA 18643-2511	MICHAEL & KATHLEEN DIMAGGIO 44 LOMBARDO DR WILKES BARRE, PA 18702-2730
MICHAEL N DIMARCO 1400 DEER CREEK RD, D SURFSIDE BEACH, SC 29575-8264	ALBERT & DEBRA DIRLAM 1128 OBERDORFER RD HARDING, PA 18643-2924
SCOTT C & ELIZABETH A DODGSON 1 WIDENER DR WILKES BARRE, PA 18702-2700	DAISY T DONOVAN 36 S THOMAS AVE KINGSTON, PA 18704-5406
CURT E DZUGAN 1204 HILLCREST RD SHAVERTOWN, PA 18708-9435	LOIS ELLSWORTH 22 ANGELINA LN HARDING, PA 18643-3033
MOLLIE EVANS 59 CENTER ST HUGHESTOWN, PA 18640-3011	EXETER HOSE COMPANY NO I 57 LINCOLN ST EXETER, PA 18643-2637

EXETER HOSE COMPAY 1 1405 SUSQUEHANNA AVE EXETER, PA 18643-2500	THOMAS P & SANDRA J FEDERO 250 DEER RUN RD PLYMOUTH, PA 18651-4405
JAMIE A FEDOR 913 MILLER ST LUZERNE, PA 18709-1131	FRANCIS D & JOAN A FISHER 5 HILLSIDE CT LARKSVILLE, PA 18651-4129
JOSEPH J & BARBARA L FREDERICK 67 MT ZION RD WYOMING, PA 18644-9405	NICOLE FRUSCIANTE & JOHN ESPOSITO 105 IRENE ST EXETER, PA 18643-1081
THOMAS GARRITY 928 LAKESIDE DR HARVEYS LAKE, PA 18618-3121	CHARLES & DOREEN GOLANOSKI 2 HEMLOCK ST NANTICOKE, PA 18634-4103
GERALD GOWER 65 WARMAN ST LARKSVILLE, PA 18651-4210	CHARLES R & ELIZABETH A HANDORF 217 APEL AVE ORELAND, PA 19075-1203
PATRICK & JENNIFER HECK 1347 SHOEMAKER AVE WEST WYOMING, PA 18644-1018	WILLIAM R HELLMANN 246 W BRIDGE ST MORRISVILLE, PA 19067-7119
DEBORAH JEAN HILL & ALBERT JEFFREY 690 HILL LN LARKSVILLE, PA 18651-4057	HILL, MARK K 1811 STONINGTON RD BETHLEHEM, PA 18018-1448
DAVID & KRISTINE M HILSTOLSKY 852 COON RD WYOMING, PA 18644-6045	ROBERT W UNDER THE HOOPER 1230 ROZELLE RD HARDING, PA 18643-2920
CLAYTON HOUGH 27 GASHI RD HARDING, PA 18643-7053	SANDRA HUFFORD 1355 STEELE RD LARKSVILLE, PA 18651-4056

LORI ANN HULSE 141 OLD NEWPORT ST NANTICOKE, PA 18634-1327	THOMAS J HYZENSKI PO BOX 4064 WYOMING, PA 18644-0064
ANN M & WEISS, DIANE IDE 815 SCHOOLEY AVE EXETER, PA 18643-9306	HOWARD E IDE 811 SCHOOLEY AVE EXETER, PA 18643-9306
JAMES H & IDA M IDE 995 SCHOOLEY AVE EXETER, PA 18643-9308	MICHAEL B & PHYLLIS JACEWICZ 95 E SAYLOR AVE PLAINS, PA 18702-2709
KENDALL DAWN JACKLOSKI 29 RAYS LN DALLAS, PA 18612-1487	JENKINS TOWNSHIP 46 1/2 N MAIN ST INKERMAN, PA 18640
DOUGLAS W JENNINGS 8 RESERVOIR RD DALLAS, PA 18612-8711	JOSEPH P KALINOSKY 90 NORTHRIDGE LN WYOMING, PA 18644-9216
HELEN M KEITHLINE 1621 ROUTE 9 , 102 OCEAN VIEW, NJ 08230-1361	MARGARET KELLEY PO BOX 3094 WEST PITTSTON, PA 18643-0094
HARRY J & KARL D KEMMERER PO BOX 532 MOUNTAIN TOP, PA 18707-0532	MATTHEW PAUL KEMPINSKI 105 WYNDTREE DR WILKES BARRE, PA 18702-2750
JOSEPH KENZAKOSKI 2233 BALD MOUNTAIN RD BEAR CREEK TOWNSHIP, PA 18702-9564	JAMES ROBERT & JAMIE RAE KINTZ 611 CAMPGROUND RD HARDING, PA 18643-7045
VICTORIA KOLESAR 1931 SUSQUEHANNA AVE EXETER, PA 18643-2527	CARMEN J LATONA 400 3RD AVE, 318 KINGSTON, PA 18704-5816

JOSEPH & CHARLES LATONA 620 S MAIN ST PITTSTON, PA 18640-3219	JOSEPH & ELIZABETH LATONA 3 WIDENER DR WILKES BARRE, PA 18702-2700
MARK LAVERDI & DONNA HAGGERTY 4 WIDENER DR WILKES BARRE, PA 18702-2751	MARK D & MONICA L LAW 2101 MOUNTAIN RD LARKSVILLE, PA 18651-4100
THOMAS M & BEVERLY H LAW 2249 MOUNTAIN RD LARKSVILLE, PA 18651-4114	ALAN DAVID LEE 885 MOUNTAIN RD LARKSVILLE, PA 18651-4235
JESSICA M & DENNIS R LEE 863 MOUNTAIN RD LARKSVILLE, PA 18651-4235	JOSEPH M LOMBARDO 16 BROAD ST PITTSTON, PA 18640-1852
NILES W & SHANNON MACIOLEK 576 CAMPGROUND RD HARDING, PA 18643-7043	NICOLE G & KENNETH J MACLEOD 999 SHOOLEY AVE EXETER, PA 18643-9308
MADDIE ENTERPRISES LLC 817 APPLE TREE RD HARDING, PA 18643-7037	JOHN J & TRUDY A MAHASKY 107 WYNDTREE DR WILKES BARRE, PA 18702-2750
VITO & MARIE T MALACARI 148 JASON DR PLAINS, PA 18702-2725	SEAN MCANDREW & DIERDRE UEBERROTH 86 FIRE CUT RD WYOMING, PA 18644-9384
LINDSAY & INSOGNA, JANELLE MCCABE 124 WYNCHURCH CIR PITTSTON, PA 18640-3766	MERICLE RIVER ROAD LLC 100 BALTIMORE DR WILKES BARRE, PA 18702-7955
METHODIST HOMES FOR THE AGING 209 ROBERTS RD PITTSTON, PA 18640-3111	DAVID & JANICE METZO 56 FIRE CUT ROAD KING TWP WYOMING, PA 18644-9384

<p>LOUIS MIKOLAICHIK 45 LOUIS LN WEST WYOMING, PA 18644-9425</p>	<p>NATURE CONSERVANCY 1100 SCHOOLEY AVE EXETER, PA 18643-9328</p>
<p>NEW ENTERPRISE STONE & LIME CO INC 3912 BRUMBAUGH RD NEW ENTERPRISE, PA 16664-9137</p>	<p>JOHN NIKOLOFF 457 W 4TH ST WEST WYOMING, PA 18644-1733</p>
<p>THOMAS A & JUDY A OLAVIANY 570 CAMPGROUND RD HARDING, PA 18643-7043</p>	<p>CHARLES OSENKARSKI 12 LAUREL ST PLAINS, PA 18705-1113</p>
<p>PA AMERICAN WATER CO 800 W HERSHEY PARK DR HERSHEY, PA 17033-2400</p>	<p>PAGNOTTI ENTERPRISES INC 144 BROWN RD YATESVILLE, PA 18640-3723</p>
<p>MARIO A PALMIERI 1308 WYOMING AVE, 101 EXETER, PA 18643-1426</p>	<p>MICHAEL & ANNA PANZITTA 40 PARK LN EXETER, PA 18643-2511</p>
<p>CHARLOTTE A PARA 3254 MARKET ST JENKINS TOWNSHIP, PA 18640-3456</p>	<p>RICHARD C PARLANTI 209 HOW KOLA RD DALTON, PA 18414-7952</p>
<p>AMITA R & RAGESH R PATEL 32 ROSEDALE DR POTTSTOWN, PA 19464-4961</p>	<p>JAMES & FRANCES PISANO 1399 SUSQUEHANNA AVE EXETER, PA 18643-2522</p>
<p>KENNETH B & CHARLES A PIZANO 1927 SUSQUEHANNA AVE EXETER, PA 18643-2527</p>	<p>LOUIS R & KATRINA M PIZANO 682 NE 77TH ST MIAMI, FL 33138-5107</p>
<p>THOMAS & NAOMI PIZANO 255 SUSQUEHANNA AVE EXETER, PA 18643-2630</p>	<p>PLAINS TOWNSHIP 126 N MAIN ST PLAINS, PA 18705-1506</p>

PLAZA 1701 LLC 100 SUSQUEHANNA AVE WEST PITTSTON, PA 18643-1709	PRAMUKHSWAMI BAPA LLC 1712 WYOMING AVE EXETER, PA 18643-1433
MARY R QUICK 33 PARK LN EXETER, PA 18643-2510	REDEV AUTH OF LUZ CO 16 LUZERNE AVE WEST PITTSTON, PA 18643-2817
PAUL W & KNAUFF, ANN M RENFER 1580 STATE ROUTE 92 HWY HARDING, PA 18643-3039	CAROL & RUTH RENNA 584 CAMPGROUND RD HARDING, PA 18643-7043
SCOTT D & MEGAN E RIEDER 225 MONTGOMERY AVE WEST PITTSTON, PA 18643-2136	ROBERT A & CHRISTINA RODZINAK 305 WOODY RD WILKES BARRE, PA 18702-2729
JOSEPH ROMANOWSKI 155 SEARFOSS RD HARDING, PA 18643-2906	JOSEPH & JACQUELINE RUANE 42 LOMBARDO DR WILKES BARRE, PA 18702-2730
SARAH M & ASHLEY, JOHN A RUPERT 1193 ROZELLE RD HARDING, PA 18643-2918	JOSEPH J & JOAN M RUSCAVAGE 337 BUNKER HILL RD, TWP WYOMING, PA 18644-9380
FRANK & MARTINA RYDER 5 DELLA LN HARDING, PA 18643-2933	KIT E & IRENE L SAMUELS 900 CORBY RD LARKSVILLE, PA 18651-4017
NATHAN & RUTH GERTRUDE SANDS 1600 STATE ROUTE 92 HWY HARDING, PA 18643-3047	SAYLOR AVE PROPERTIES LLC 16 BROAD ST PITTSTON, PA 18640-1852
SHADOW RIDGE ESTATES LLC 777 ASH ST WEST PITTSTON, PA 18643-1741	WILLIAM & MARY ELLEN SHAFFER 1794 SUSQUEHANNA AVE EXETER, PA 18643-2524

WARREN W LINDA K SMITH RR 4 BOX 660 WEST PITTSSTON, PA 18643	MICHAEL & CANDICE RUTH SOPATA 103 IRENE ST EXETER, PA 18643-1081
PAUL & IRENE SORBELLI 103 E SAYLOR AVE WILKES BARRE, PA 18702-2756	VINCENT SORBELLI 107 E SAYLOR AVE WILKES BARRE, PA 18702-2756
ST CECELIAS CEMETERY WYOMING AVE EXETER, PA 18643	ST VINCENT CEMETERY MOUNTAIN RD LARKSVILLE, PA 18651
DANIEL STEELE 976 STEELE RD LARKSVILLE, PA 18651-4054	JAMES & CAROL STONE 14 TOWERS ST SHAVERTOWN, PA 18708-9723
JOSEPH & ELIZABETH STRAZDUS 629 ROZELLE RD WEST PITTSSTON, PA 18643	SWOYERSVILLE BOROUGH 675 MAIN ST SWOYERVILLE, PA 18704
BRUNO & MARIE TAFANI 15 STURMER ST EXETER, PA 18643-1015	NELLO & HARDIMAN, LINDA TALAMELLI 1401 SHOEMAKER AVE WEST WYOMING, PA 18644-1020
NELLO J & JEAN TALAMELLI 1355 SHOEMAKER AVE WEST WYOMING, PA 18644	MICHAEL M & JUDY A TKACH 37 PARK LN EXETER, PA 18643-2510
TOWNSHIP OF PLAINS 3912 BRUMBAUGH RD NEW ENTERPRISE, PA 16664-9137	GARY D TURNER 545 W STATE ST LARKSVILLE, PA 18651
UGI CORP PO BOX 3200 READING, PA 19612	UGI CORP 511 E NOTRHAMPTON ST A-2 WILKES BARRE, PA 18711

<p>UNITED MOBILE HOMES OF PA JUNIPER BUSINESS PLAZA 3499 US HIGHWAY 9, 3C FREEHOLD, NJ 07728-3277</p>	<p>VALENTI REALTY LLC PO BOX 3044 WEST PITTSBURGH, PA 15140-0044</p>
<p>JOSEY A VALENTI PO BOX 528 MILLVILLE, PA 17846-0528</p>	<p>DAVID P & ALLISON M VANAUKEN 381 W 6TH ST WEST WYOMING, PA 18644-1714</p>
<p>MANGUS & BAKER, DOROTHY VANDUNK 1594 STATE ROUTE 92 HWY HARDING, PA 18643-3039</p>	<p>JOSEPH P & KAREN R VAVREK RR 4 BOX 339 WEST PITTSBURGH, PA 15140</p>
<p>MARYALICE & SINCAVAGE, STEPHEN E VITALE 1356 STEELE RD LARKSVILLE, PA 18651-4061</p>	<p>SUZANNE & SCOTT WARREN 103 WYNDTREE DR WILKES BARRE, PA 18702-2750</p>
<p>STANLEY G & ROSEMARIE WATESKI, V 789 WYOMING AVE KINGSTON, PA 18704-3833</p>	<p>KURT D & MEGAN A WEINLAND 107 IRENE ST EXETER, PA 18643-1081</p>
<p>MICHAEL WIENCKOSKI 1161 ROZELLE RD HARDING, PA 18643-2918</p>	<p>WILKES LIMITED PARTNERSHIP 52 WYNDWOOD DR WILKES BARRE, PA 18705-3822</p>
<p>ARLENE WILLIAMS PO BOX 128 WEST PITTSBURGH, PA 15140</p>	<p>WRUBEL, JAMES & MARLENE 1921 SUSQUEHANNA AVE EXETER, PA 18643-2527</p>
<p>WYOMING BOROUGH 277 WYOMING AVE WYOMING, PA 18644-1646</p>	<p>DONALD J & MARY ANN ZURENDA 364 SLOCUM AVE EXETER, PA 18643-1194</p>
<p>TABITHA C & PATRICIA YOUNGBLOOD 965 CORBY RD PLYMOUTH, PA 18651-4018</p>	

VERIFICATION

I, JOSEPH B. LOOKUP, being the Vice President – Transmission & Distribution Planning and Asset Management at PPL Services Corporation, hereby state that the facts above set forth are true and correct to the best of my knowledge, information and belief and that I expect PPL Electric Utilities Corporation to be able to prove the same at a hearing held in this matter. I understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 relating to unsworn falsification to authorities.

Date: 11/12/2024


Joseph Lookup (Nov 12, 2024 13:58 EST)
Joseph B. Lookup