

# 2014 RTEP Window 3

## PJM RTEP Project Proposal *ComEd Service Territory*

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*Loretto-Katydid Transmission Line  
(This project will address congestion on the Loretto  
345kV to Wilton Center 345kV FLO Dresden 345kV to  
Pontiac 345kV flowgate)*

*Prepared for*

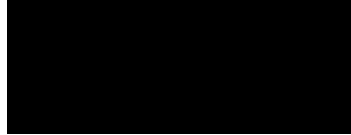


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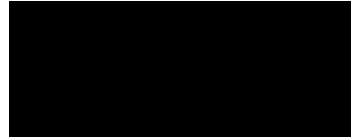
**Prepared for:** PJM Interconnect

**Prepared by:** Commonwealth Edison Company

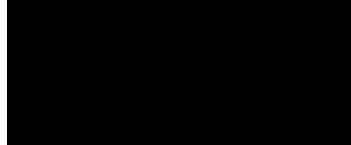
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**PUBLIC VERSION**



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**A – EXECUTIVE SUMMARY**



Proposing Entity: Commonwealth Edison Company (ComEd)

A general description of the proposed project:

The solution consists of the installation of a new ~14.5 mile 345 kV single circuit overhead transmission line from ComEd’s existing Loretto 345kV substation to ComEd’s existing Katydid 345kV substation. Additionally, 345 kV L0303 from ComEd’s Powerton to Goodings Grove 345 kV substations would be brought into and split at Katydid.

The problem(s) that the project is proposed to resolve:

This project will address congestion on the Loretto 345kV to Wilton Center 345kV FLO Dresden 345kV to Pontiac 345kV flowgate (from the 2014 15 RTEP Long Term Proposal Window Results file on the Recommended for Proposals tab).

Total proposed project cost:

\$37.8 M (Nominal)

Overall schedule duration:



Value Proposition:

ComEd has over 100 years of experience siting, building and operating transmission facilities in Illinois. This proposal is a proven, reliable, cost effective design with field tested performance. This proposal ties into existing stations that ComEd is very familiar with and has vast experience designing, constructing and modifying these types of substations. Preliminary engineering for this project has been completed leading to a high degree of confidence of constructability.

ComEd is pre-qualified as an affiliate of Exelon. Our PJM pre-qualification number is 13-04.

ComEd seeks to be designated to construct, own, operate, maintain, and finance the proposed project.

## B – COMPANY EVALUATION INFORMATION

ComEd is headquartered in Chicago, IL. ComEd is an affiliate of Exelon Corporation. Exelon's headquarters are located in Chicago, IL. For details regarding the qualifications, experience and financial standing of ComEd, please see the designated entity pre-qualification materials submitted by Exelon on behalf of its affiliates (PJM ID 13-04). These materials are posted on PJM's website.

As shown in Exelon Corporation's Pre-Qualification package, Exelon has in-house and contracting capability to support restoration, including during extreme events such as Hurricane Sandy where Exelon was able to use its geographically diverse workforce to assist its sister utilities in emergency restoration. Exelon has unique knowledge of the transmission systems in the service territories served by BGE, ComEd and PECO; familiarity with the communities served by its public utilities; experience in building, maintaining and siting transmission facilities in these communities; and access to funds to build and maintain new and existing transmission facilities. Exelon utilities are NERC registered Transmission Owners with Federally mandated reliability obligations.

**a. Technical and Engineering Qualifications and Experience**

ComEd has constructed thousands of miles of transmission. As detailed in the Exelon Pre-Qualification package, ComEd has planned, constructed and currently maintains and operates 90 miles of 765 kV circuits, 2,647 miles of 345kV circuits and 2,844 miles of 138kV circuits. The project proposal presented here is well within the engineering capabilities of ComEd.

**b. Emergency response capability**

Exelon has in-house and contracting capability to support restoration, including during extreme events such as Hurricane Sandy where it was able to use its geographically-diverse workforce to assist their subsidiary utilities in emergency restoration.

**c. Proposed financing**

As demonstrated in Exelon's Designated Entity Prequalification Materials, Exelon is more than qualified to provide the financing for this project, which will be through a combination of debt and equity at a FERC-approved capital structure.

Exelon, an investment-grade company with total assets of \$78 billion, maintains the ability to finance the project with any combination of the following: cash, existing credit facilities, external financing sources, and other financing alternatives. Exelon's internally generated cash and available credit facilities provide more than adequate liquidity (in excess of \$8 billion) for the development, construction, and operation of this project.

**B – COMPANY EVALUATION INFORMATION**

**d. Managerial ability to contain costs and adhere to construction schedules**

[REDACTED]

**e. List of Assumptions**

All work associated with the project proposal will be performed by ComEd or contractors approved by and with oversight of ComEd personnel, ComEd being the proposer described herein and the incumbent utility on whose facilities the work will take place.

## C – PROPOSED PROJECT CONSTRUCTABILITY INFORMATION

### 1. Component Scope

The solution consists of the installation of a new ~14.5 mile 345 kV single circuit overhead transmission line from ComEd’s existing Loretto 345kV substation to ComEd’s existing Katydid 345kV substation. Additionally, 345 kV L0303 from ComEd’s Powerton to Goodings Grove 345 kV substations would be brought into and split at ComEd’s existing Katydid 345kV substation. The project cost is estimated to be \$37.8 million (nominal) and in-service by [REDACTED] assuming approval by PJM Board of Managers by [REDACTED]. The timeline and estimated costs provided are based on reasonable assumptions for permitting and regulatory approval as discussed below in section C.1.d and as such are subject to change pending said regulatory and permitting approvals.

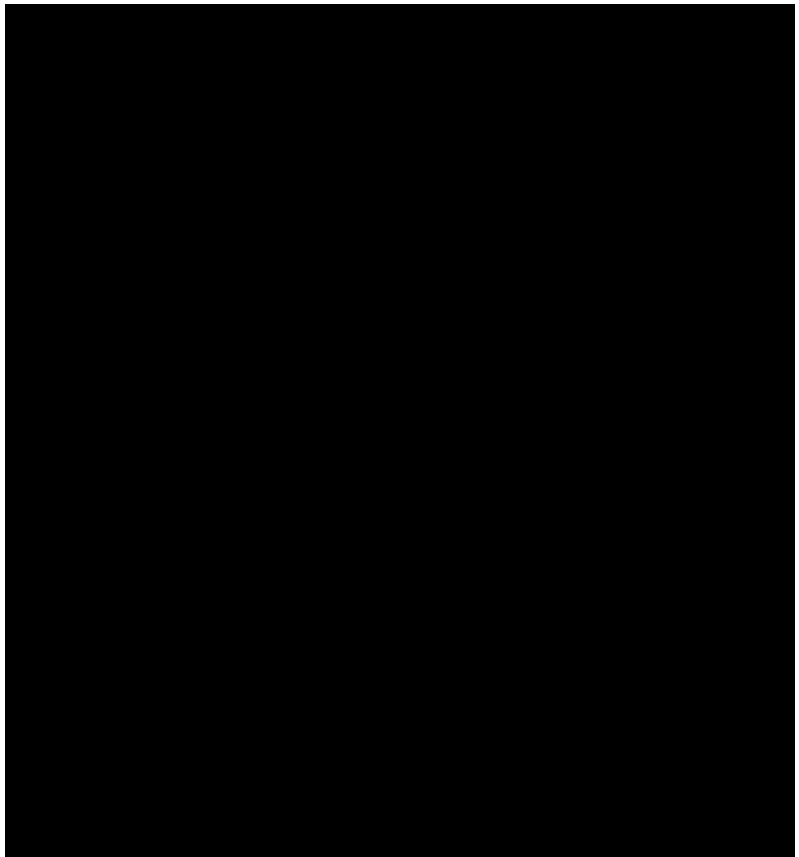
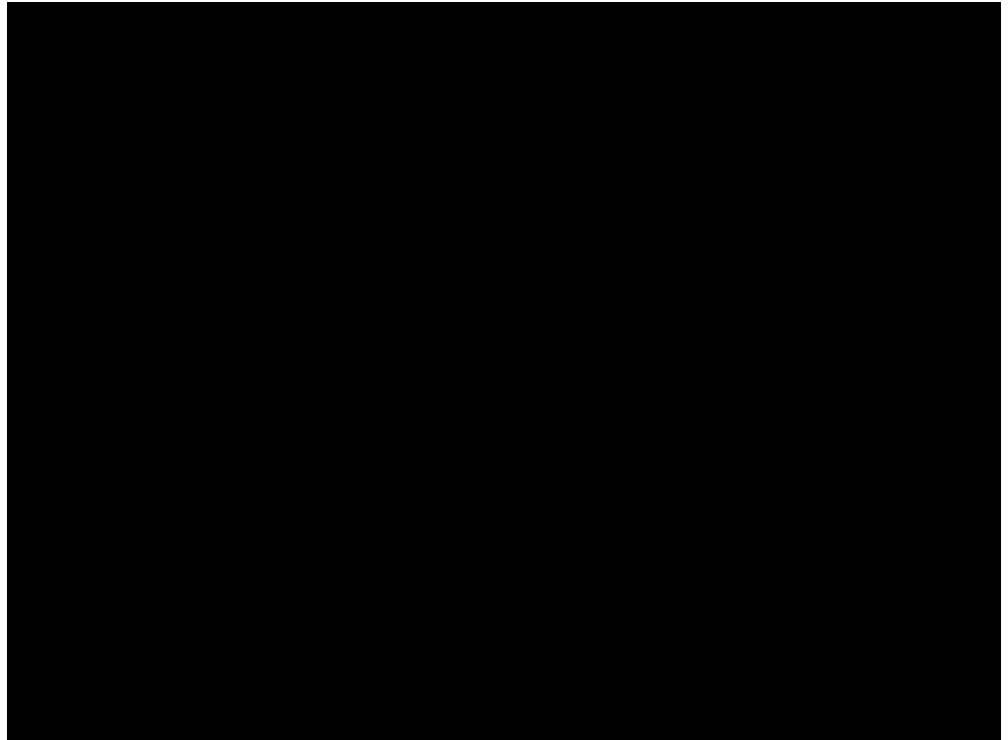
#### 1.a Greenfield Transmission Line Element Detail

The line will run from ComEd’s existing Loretto Substation to ComEd’s existing Katydid Substation.

The area between the two substations generally consists of farmland.

Geographic and one-line representations are below.

C - PROPOSED PROJECT CONSTRUCTABILITY INFORMATION



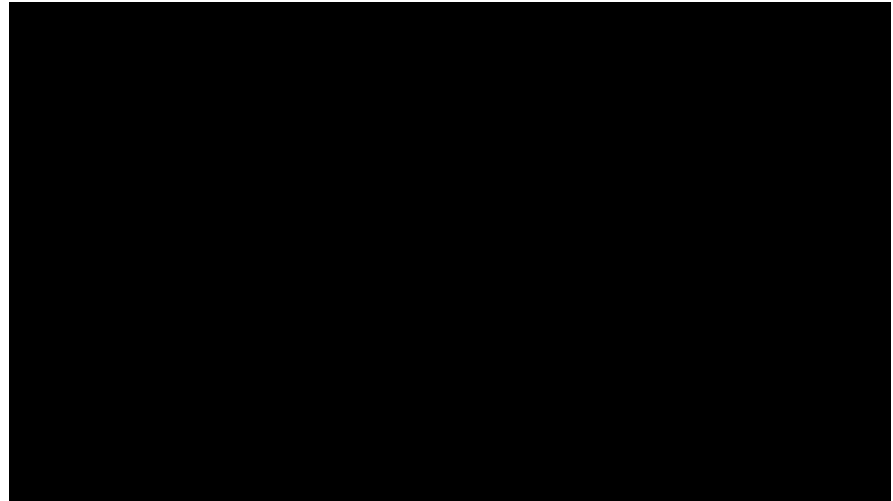


C – PROPOSED PROJECT CONSTRUCTABILITY INFORMATION

It is anticipated the ROW will require acquiring ~ 14.5 miles at [REDACTED] width throughout ([REDACTED] in total)

Electrical characteristics:

The line will operate at a nominal voltage of 345kV, AC  
See table below for ratings



Physical characteristics:

Line conductor: [REDACTED]  
Shield conductor: [REDACTED]  
Overhead Transmission  
Single circuit

There is one anticipated transmission facility crossing.

Optional supporting information: See Appendix 1 for drawings and major material components

**1.b-c N/A for this proposal (there is no proposed greenfield substation nor any proposed facilities to be constructed by others)**

**1.d Environmental, Permitting and Land Acquisition**

ComEd will consult with all applicable regulatory agencies as required when constructing new transmission facilities. ComEd will ensure that necessary documentation is supplied and procedures are followed throughout the duration of the project. This would include studies and permitting for constructability and

**C – PROPOSED PROJECT CONSTRUCTABILITY INFORMATION**

construction methods, site access, equipment staging, river crossing, environmental impacts, and development of mitigation plans to address any impacts if determined to be necessary. Specific environmental studies will be required to identify the presence of wetlands, floodplain, threatened and endangered species, and historic preservation sites. ComEd would require any necessary permits are obtained to comply with local, state, and federal environmental regulations.

The proposed project traverses 14.5 miles of undeveloped land that appears to be used for agriculture farming, and in some areas traverse through wind turbine farms. The project will require the acquisition of new land rights for the construction, operation, maintenance, including access to and from, for the proposed project facilities. ComEd will contact landowners to negotiate and reach acceptable terms and conditions in a form of a perpetual easement agreement. ComEd will pay landowners compensation for granting such rights. ComEd will follow all public utility commission requirements for land acquisition including any application for a certificate of public convenience and necessity.

The timeline and estimated costs provided are based on reasonable assumptions for permitting and regulatory approval as discussed above and as such are subject to change pending said regulatory and permitting approvals.

**2.a Project Component Cost Estimates**

<u>Description</u>	<u>Dollars</u>
Engineering and design costs	[REDACTED]
Material and Matting costs	
Construction and commissioning costs (including equipment)	
Right of way and land procurement costs	
Permitting costs	
Construction management costs	
Contingency and other cost adders	
<b>Total</b>	<b>\$ 37.8M</b>

**3.a Schedule**

Please see Appendix 1 for preliminary schedule; dates assume PJM Board of Managers approval no later than [REDACTED] as well as all regulatory and permit approvals are received in timely fashion.

## C – PROPOSED PROJECT CONSTRUCTABILITY INFORMATION

### Operational Plan

#### 4.a On-going Transmission Facility Items

##### a. Operational Plan

ComEd plans to operate the new transmission line from its current transmission control center in suburban Chicago. ComEd currently owns and operates 5,581 miles of transmission in northern Illinois from this control center.

##### b. Maintenance Plan

ComEd will maintain the new line in accordance with its standard maintenance practices. ComEd maintains spare equipment for emergencies including towers, conductor, circuit breakers, relays, and other equipment.

#### 5.a Assumptions

- Assumes all regulatory approvals are received in a timely and reasonable fashion
- Assumes ROW is acquired for typical land costs in this area

## D – COMED PROJECT TEAM



ComEd supplemented its own internal expertise and experience with an industry leading team from Quanta Services. Quanta Technology provided planning support, project design, constructability review and risk assessment services, The Quanta team of Quanta Technology, Dashiell and MJ Electric have demonstrated their ability to provide integrated planning, engineering, procurement and construction services over the 25 years that they have provided support to ComEd and the rest of the Exelon organization.

Appendix 1 Redacted