PJM – RTEP 2016/17 RTEP Long Term Proposal Window

Conastone-Long Green-Raphael Road 230 kV

A Proposal to PJM Interconnection February 28, 2017

Submitted on behalf of

Transource® Energy, LLC and its Affiliates

1 Riverside Plaza, Columbus, Ohio 43215-2372

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A. Executive Summary

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A.1. General Description of Proposed Project

Transource proposes to build the "Conastone-Long Green-Raphael Road 230 kV Project" (or, "the Project") in Maryland. PJM should evaluate the Project as one proposal. The Project will establish a new 230 kV path from Conastone to Raphael Road station. The new 230 kV line will be a combination of greenfield portions and rebuilds of existing facilities.

To accommodate the new 230 kV line, the Conastone station will be expanded to include a new breaker-and-a-half string with two 230 kV breakers. Additionally, the Raphael Road station will be expanded to include one new 230 kV breaker. One new 230/115 kV switching station, called "Long Green," will tie together the 230 and 115 kV lines along the Five Forks-Windy Edge 115 kV corridor.

One greenfield section of the 230 kV path will run from the Conastone station to the existing Five Forks-Windy Edge 115kV corridor, approximately 8.7 miles, connecting with the existing 115kV corridor approximately 0.3 miles south of the Rock Ridge station. Within this proposal, Transource will refer to this location on the Five Forks-Windy Edge corridor as "the Transource Connection Point". The Transource Connection Point is identified in the Conceptual Route map provided in Section C.4. The other greenfield section will run from Long Green station to Raphael Road station, approximately 7.54 miles.

The 115 kV line between Rock Ridge and Five Forks will be rebuilt as a single-circuit line. The section of line between Rock Ridge and Long Green station will be rebuilt as a double-circuit line with the new 230 kV path on one side and 115 kV on the other to pick up the existing station loads at Rock Ridge, Colonial Pipeline Tap, and Glen Arm. Between Long Green and

Gunpowder stations, the existing twin single-circuit 115 kV lines will be rebuilt as two separate double-circuit 115 kV lines. Two of the four circuits on the rebuilt lines will tie into the Gunpowder station. The existing lines between Gunpowder station and Windy Edge will be rebuilt as double-circuit, including the two lines that do not tie into Gunpowder station. Breakers will be installed and terminal equipment will be upgraded at Rock Ridge, Colonial Pipeline Tap, and Glen Arm stations. Upgrades will also be required on one of the Windy Edge-Hazelwood 115 kV lines and the Face Rock 115/69 kV transformers. Transource is also proposing to install larger transformers at Furnace Run station and higher capacity terminal equipment at Conastone station on the Furnace Run 230 kV line exit. Remote end relaying upgrades or changes will be required at the following existing stations: Conastone 230, Five Forks 115, Windy Edge 115, Gunpowder 115, and Hazelwood 115 kV stations.

A.2. Market Efficiency Flowgates Addressed

The Project will address congestion identified by PJM on the Conastone-Graceton and Graceton-Bagley 230 kV lines. Further analysis and results are discussed in Section D. Furthermore, Transource performed analysis of existing and new contingencies that the Project may create and found no planning criteria violations.

A.3. Overall Schedule Duration

The Project is expected to be placed in service 59 months after execution of the PJM Designated Entity Agreement (DEA). Assuming the DEA is executed by February 1, 2018, Transource could place the Project in service December 2022.

A.4. Overview of Estimate

The estimated capital cost of the Project is approximately $150,123,543 (in 2017 dollars). This estimated cost includes all Project components, including work that PJM may consider as upgrades. Please refer to Section E of this proposal for details on the project cost.

A.5. Designated Entity Statement of Intent

Transource Maryland, LLC (Transource Maryland) seeks to be considered the Designated Entity for the project described within this Proposal to design, construct, own, operate, and maintain the facilities and assets, subject to determination regarding components deemed upgrades by PJM.

B. Company Evaluation Information

Transource Maryland, LLC is a direct, wholly-owned subsidiary of Transource Energy, LLC. Both Transource and Transource Maryland are located at 1 Riverside Plaza in Columbus, Ohio. Specific contact information is provided below.

B.1. Transource Contacts

Primary Contact	Adam Hickman Manager, Transource Business Development	Transource Energy, LLC 1 Riverside Plaza Columbus, Ohio 43215-2372 Telephone: 614-716-2854 Email Address: ajhickman@aep.com
Secondary Contact	Takis Laios Manager, Transmission Asset Strategy	Transource Energy, LLC 1 Riverside Plaza Columbus, Ohio 43215-2372 Telephone: 614-716-3462 Email Address: tlaios@aep.com

B.2. Transource Qualifications

Transource and Transource Maryland have been pre-qualified to be a Designated Entity for transmission projects in PJM under section 1.5.8 (a) of the PJM Operating Agreement. The pre-qualification information is contained in the document submitted to PJM on April 29, 2013, entitled Pre-Qualification Application of American Electric Power and Certain Affiliates. This document is on record with PJM and posted on the PJM website, with PJM pre-qualification ID of 13-05. PJM confirmed the pre-qualified status of AEP and certain affiliates, including Transource, in a letter dated July 7, 2013. As required annually, Transource has reviewed this information and an Addendum to this posted document was submitted to PJM on September 30, 2016. Additionally, PJM affirmed the pre-qualified status of AEP and certain affiliates, including Transource and Transource Maryland, LLC, in a letter dated October 27, 2016.

Transource Maryland will bring to bear the talents, resources, and capabilities of AEP, GPE, and their respective subsidiaries to execute the Project. These capabilities are detailed in AEP and Transource's prequalification submittal to PJM. Additionally, for the benefit of PJM, supporting information detailing the strength of financial ties between Transource Maryland and Transource, and Transource's direct parent companies, AEP Transmission Holding Company, LLC and GPE Transmission Holding Company, LLC, is provided below.

Overview of Capital Resources

Transource Maryland is anticipated to be the owner of the project awarded in Maryland. Transource Maryland will follow the successful model of financing that is currently used by its affiliate sister companies. Transource Maryland intends to use a combination of debt and equity financing to fund its ownership of the projects. Figure 1 below depicts the legal structure and financing arrangement for Transource Energy and its existing active subsidiary companies, including Transource Missouri, LLC, which currently owns and operates transmission assets in SPP, and Transource West Virginia, LLC, Transource Pennsylvania, LLC, and Transource Maryland, LLC, which are developing transmission projects in the PJM Interconnection.

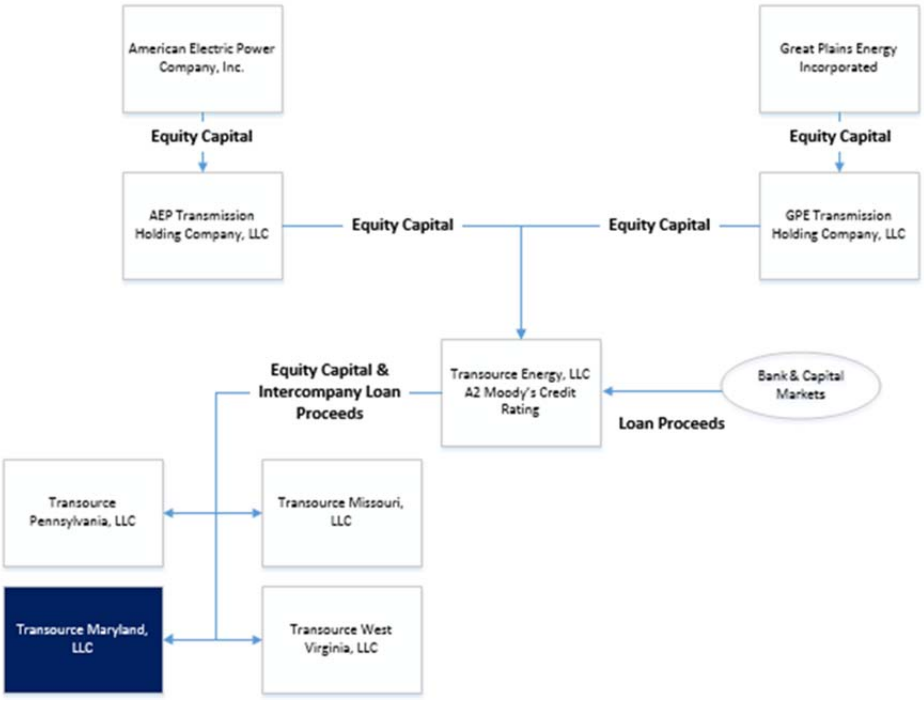

Figure 1. Transource & Transource Maryland Financial Structure

Transource's funding authority is governed by an Operating Agreement, whereby the Members of the Operating Agreement, AEP Transmission Holding Company, LLC and GPE Transmission Holding Company, LLC, have set forth an agreement with respect to obligations to fund capital contributions for ongoing expenditures at Transource Energy and its subsidiary companies. Debt capital raised at Transource Energy (A2 Moody's credit rating) will be lent, at cost, through an intercompany lending agreement to Transource Maryland. Transource Maryland will pay Transource Energy for the cost of these loans, including any interest expense, commitment fees, upfront lending fees, rating agency fees, or other financing costs according to each company's pro rata portion of the loans.

B.3. Overview of Transource and Transource Maryland

Transource and its subsidiary companies were formed to pursue the development of competitive transmission projects in marketplaces initiated by the implementation of FERC Order No. 1000. AEP owns 86.5 percent of Transource, and GPE owns 13.5 percent. Transource owns 100% of its subsidiary companies, including Transource Maryland. The combined

strengths of AEP and GPE in engineering, project management, procurement, project development, construction, operation and maintenance will result in effective and efficient strengths of AEP and GPE in engineering, project management, procurement, project development, construction, operation and maintenance will result in effective and efficient delivery of transmission solutions that benefit transmission customers.

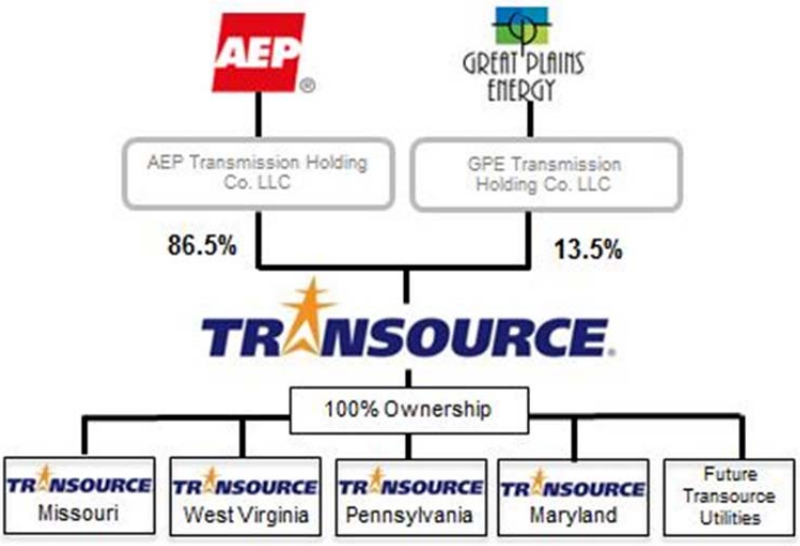

Figure 2. Summary of Transource Ownership Structure

Transource developed two Southwest Power Pool (SPP) approved transmission projects in the state of Missouri through its subsidiary Transource Missouri, LLC (Transource Missouri): The Iatan-Nashua 345 kV transmission project, placed into service in April 2015, and the Sibley-Nebraska City 345 kV transmission project, placed into service in December 2016.

Transource, in coordination with AEP affiliate Appalachian Power Company, is also developing a project in West Virginia through its subsidiary company, Transource West Virginia, LLC. The $75 million project consists of building 25 miles of 138kv transmission line and three substations, and upgrades to other transmission facilities in Roane and Kanawha counties of West Virginia. The project is expected to be in-service in 2019.

In addition to these projects in Missouri and West Virginia, Transource was awarded PJM's largest-ever market efficiency project on the Pennsylvania-Maryland border in August

2016. Transource Pennsylvania, LLC and Transource Maryland are developing the respective portions of the project according to state boundaries. In January 2017, Transource Pennsylvania and Transource Maryland, through authorization from the Federal Energy Regulatory Commission (FERC), established formula rates and received approval for certain incentives.

The figure below provides a snapshot of the states in which Transource's owners, AEP and GPE, currently own or are developing transmission assets, demonstrating the breadth and capabilities of Transource.

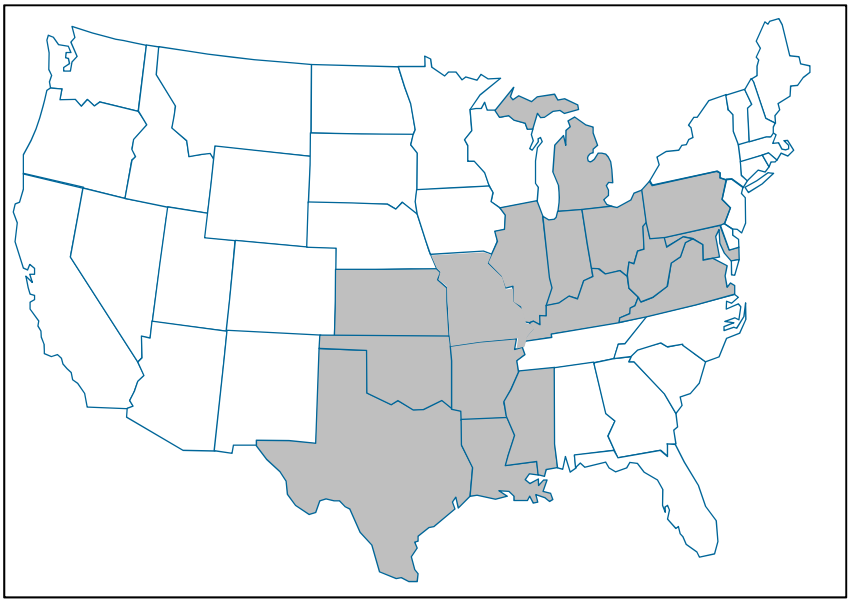

Figure 3. AEP and GPE Combined Transmission Presence

C. Proposed Project Constructability Information

[REDACTED]

D. Analytical Assessment

[REDACTED]

E. Cost

[REDACTED]

F. Schedule

[REDACTED]

G. Operations/Maintenance

For all Project components, Transource will maintain a reliable system and ensure safety and compliance with all applicable codes and standards. Transource will oversee the planning, maintenance, real-time operations and emergency response activities for the project.

G.1. Operational Plan

Transource is flexible regarding Project operations that can be provided using one of the following approaches:

- Transource can operate the new facilities directly using the capabilities of the AEP Transmission Operations (TOps) organization.
- Transource can work with the incumbent transmission owner to facilitate their operations of the new facilities.

The TOps organization operates from a state-of-the-art System Control Center (SCC) located in New Albany, Ohio. AEP TOps also operates five Transmission Operations Centers that coordinate transmission switch orders and interface with field personnel. The SCC and Transmission Operations Centers are staffed with NERC and PJM-Certified operators.

Operator tools include a State Estimator covering AEP's 11-state transmission system, real-time contingency analysis, and visualization and situational awareness tools. TOps has a back-up control center that can be staffed and fully functional within one hour from declaration of an emergency. TOps completes approximately 18,000 switching jobs totaling over 200,000 switching steps with an accuracy rate exceeding 99.99 percent annually.

G.2. Maintenance Plan

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Appendix

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TRANSOURCE

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