

PJM RTEP-2015 RTEP Proposal Window #1

Carson-Rawlings 500 kV Project

A Proposal to PJM Interconnection, Submitted August 4, 2015

Submitted by

Transource® Energy, LLC

1 Riverside Plaza, Columbus, Ohio 43215-2372





Table of Contents

A. EXECUTIVE SUMMARY 1
A.1. General Description of Proposed Project 1
A.2. Reliability Problem(s) Proposed to Resolve 2
A.3. Overall Schedule Duration 3
A.4. Overview of Cost Estimate and Cost Containment..... 3
A.5. Designated Entity Statement of Intent 4
A.6. Designated Entity Status/Pre-Qualification 4
B. COMPANY EVALUATION 5
B.1. Overview of Transource Energy 5
B.2. Transource Contacts 6
B.3. Transource Qualifications 6
C. PROPOSED PROJECT CONSTRUCTABILITY INFORMATION..... 7

List of Figures

Figure 1. Project Study Area Map	2
Figure 2. Conceptual One-Line Diagram	2
Figure 3. Summary of Transource Ownership Structure	5
Figure 4. Combined Transmission Presence	6

List of Tables

Table 1. Addressed Contingencies Identified by PJM	2
--	---

A. EXECUTIVE SUMMARY

Transource® Energy, LLC (Transource) is pleased to provide the following proposal to PJM in response to the *PJM RTEP-2015 RTEP Problem Statement & Requirements* document. Transource was specifically formed as a joint venture between subsidiaries of American Electric Power Company (AEP) and Great Plains Energy Incorporated (GPE) to participate in competitive processes for transmission development and to provide benefits to transmission customers through the planning, construction, and ownership of high quality, low cost transmission infrastructure. Transource is located at 1 Riverside Plaza in Columbus, Ohio.

A.1. General Description of Proposed Project

Transource proposes to build the “Carson-Rawlings 500 kV Project” (or, “the Project”) in southern Virginia.

The Project includes the following:

- Construct approximately 23.5 miles of new 500 kV line establishing a new Carson-Rawlings 500 kV Circuit.
- Install a new 500 kV circuit breaker at Carson station to complete the breaker and a half string with positions for the new Carson-Rawlings 500 kV Circuit and the existing Carson-Rodgers Road 500 kV Circuit.
- Expand the Rawlings 500 kV ring bus by installing a fourth circuit breaker to allow for connection of the Carson-Rawlings 500 kV Circuit.
- Remote-end relaying changes at Carson station for the new Carson-Rawlings 500 kV Circuit.
- Remote- end relaying changes at Rawlings station for the new Carson-Rawlings 500 kV Circuit.

Transource has completed the necessary preliminary project development work to determine project constructability, preliminary cost estimates, and a construction schedule. Experienced AEP engineering personnel were the primary resources for this work.

For the purpose of this proposal, Transource developed a Conceptual Route based on a desktop review of publicly available data. The Conceptual Route was used as the basis for the designs and estimates contained in this proposal. However, the Conceptual Route is not intended to represent a preferred, alternate or final route for purposes of the applicable siting, permitting and other regulatory approval processes.

A project study area map and conceptual one-line diagram for the Project are provided below. Please note that this proposal contains multiple graphics that are available in high-resolution format upon request.

[Redacted]

Figure 1. Project Study Area Map

[Redacted]

Figure 2. Conceptual One-Line Diagram

Attachment 1 of this Proposal includes the required analytical files as set forth in the *PJM RTEP – 2015 RTEP Proposal Window 1 Problem Statement & Requirements* document. Attachment 2 of this Proposal includes the required *2015 RTEP Proposal Window Template*.

A.2. Reliability Problem(s) Proposed to Resolve

The Project addresses the planning criteria violation(s) listed below:

2020 PJM Generation Deliverability and Common Mode Outage Results													
FG #	Fr Bus	Name	To Bus	Name	CKT	KVs	Areas	Rating	FN DC Flow	FN AC Flow	FN DC %	FN AC %	Cont Label
NEW-52	314940	8ROGERS RD	314902	8CARSON	1	500/500	345/345	3218.56	3433.5	3366.65	106.68	104.6	'LN 511'

Table 1. Addressed Contingencies Identified by PJM

This generation deliverability issue that PJM has identified occurs for the loss of the existing Carson-Rawlings 500 kV Circuit. The generation sources with the most significant impacts to the monitored facility are the Z1-086 IPP, injecting onto the 500 kV system at

Rodgers Road station, and the Brunswick units injecting onto the 500 kV system at Heritage station. Other contributing generation units in the area include units 1 and 2 at Clover. This Proposal resolves the violation by providing a second 500 kV path at the location of the contingency. 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 projected to be placed in service no later than the second quarter of 2020.

A.4. Overview of Cost Estimate and Cost Containment

The preliminary estimated capital cost of the Project is approximately \$65.3 million. This estimated cost includes all components of the Project, including components that PJM may consider as upgrades.

Transource offers a cost containment mechanism for the Project that provides financial incentive to deliver the Project at or below its estimated project cost. Total estimated project cost is \$65.3 million (in 2015 dollars), of which \$60.5 million is estimated to be designated to Transource. Under the cost containment mechanism for this Project:

- (a) Transource would be entitled to recover its FERC-approved return on equity plus incentives on the costs it incurs for the Project up to its estimated project cost of \$60.5 million (plus an escalation of the estimated project cost of 3 percent per year to account for inflation, until the project is placed in service), for the components of the Project designated to Transource.
- (b) Transource would forego any return on equity incentives approved by FERC (including the RTO participation adder) for the project cost portion that exceeds the estimated Transource -designated project cost of \$60.5 million. For purposes of this incentive rate waiver, Transource will escalate the estimated project cost at 3 percent per year, to account for inflation, until the project is placed in service.
- (c) In addition, in order to provide certainty to the customer rates, Transource commits to an actual equity content of no greater than 50 percent for the Project, once permanent

financing is in place. This assumes that the capital market conditions remain normal and provides for the ability to finance these transmission projects with the proposed capital structure.

A.5. Designated Entity Statement of Intent

Transource seeks to be considered the Designated Entity for the project described within this Proposal, subject to determination regarding components deemed upgrades by PJM.

A.6. Designated Entity Status/Pre-Qualification

Transource has 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 Transource in a letter dated July 7, 2013. As required annually, Transource has reviewed this information and determined that no updates are required.

B. COMPANY EVALUATION

B.1. Overview of Transource Energy

Transource was 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. The combined 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.

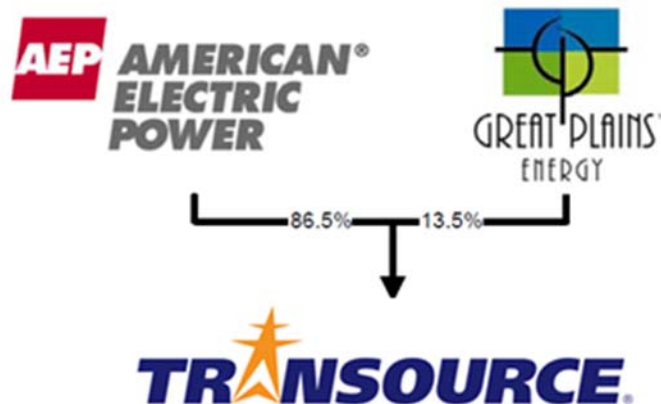


Figure 3. Summary of Transource Ownership Structure

Transource is currently developing 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 was recently placed into service, and the Sibley-Nebraska City 345 kV transmission project is currently under construction. Transource received approval from the Federal Energy Regulatory Commission (FERC) of a formula rate and certain incentives for Transource Missouri in FERC Docket No. ER12-2554. In addition, Transource Missouri received approval from the Missouri Public Service Commission of a settlement filed in File No. EA-2013-0098 for a line Certificate of Convenience and Necessity to finance, construct, own, operate and maintain these projects.

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

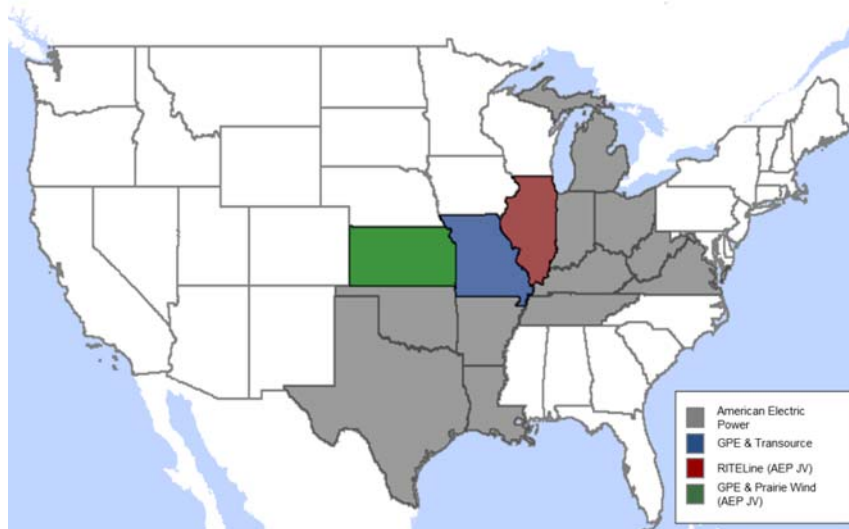


Figure 4. Combined Transmission Presence

B.2. Transource Contacts

Primary Contact	Joshua D. Burkholder Director, Asset Strategy	Transource 1 Riverside Plaza Columbus, Ohio 43215-2372
Secondary Contact	Takis Laios Manager, Transmission Asset Strategy	Transource 1 Riverside Plaza Columbus, Ohio 43215-2372

B.3. Transource Qualifications

Transource 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 Transource’s prequalification submittal to PJM.

C. PROPOSED PROJECT CONSTRUCTABILITY INFORMATION

[Section Redacted]



This page is intentionally left blank.



TRANSOURCE® ENERGY, LLC

1 Riverside Plaza
Columbus, Ohio 43215
P 614-716-2884

E info@TransourceEnergy.com
www.transourceenergy.com

