Ameren Transmission Company of Illinois's
Response to MPSC Data Request

In the Matter of the Application of Ameren Transmission Company of Illinois for Other Relief or, in the Alternative, a Certificate of Public Convenience and Necessity Authorizing it to Construct, Install, Own, Operate, Maintain and Otherwise Control and Manage a 345,000-volt Electric Transmission Line from Palmyra, Missouri, to the Iowa Border and an Associated Substation Near Kirksville, Missouri.
Supplemental

Data Request No.: MPSC 0025s1 - Shawn Lange

If the Mark Twain Project is completed and operational: 1. How will Ameren Missouri's import capability change? 2. How will Ameren Missouri's export capability change? 3. How will ATXI's import capability change? 4. How will ATXI's export capability change? DR Shawn Lange (Shawn.Lange@psc.mo.gov).

RESPONSE

Prepared By: Dennis D. Kramer
Title: Sr. Director, Transmission Policy, Planning and Stakeholder Relations
Date: January 22, 2016

Supplemental Response:

The response provided to DR 25 on 07/23/2015 may not have been complete. After further review I realized that my answer has been interpreted as providing an accurate indication of the ability to deliver wind energy into the Ameren Missouri control area. My answer does not provide an accurate indicator of that capability.

The increased Ameren Missouri import capability of approximately 24 MW from the MISO region provided in my original answer was calculated assuming summer peak conditions when wind generators typically have low availability (usually less than 20% of nameplate capacity). The wind resources that the MVP analysis assumes would exist with the MVP portfolio in place were not included in this summer peak model. Additionally, other wind resources in MISO were modeled at a low output (typically 20%) relative to the resources' nameplate capability.

I assessed further the ability of the Mark Twain project to deliver wind energy into the Ameren Missouri control area. The analysis modeled a case where the Mark Twain project is out of service compared to the case where Mark Twain project is in service but

MISO Exhibit No. 52
Date 1/25/16 Reporter SL
File No. EA-2015-0146

using the 2021 shoulder model which assumes the rest of the MVPs are in-service and the wind resources assumed in MVP energy zones (except that the wind assumed by the MVP analysis in MO Zone C was removed from the model). The addition of the Mark Twain 345 kV project results in additional energy flowing from the upper Midwest into the Ameren Missouri control area. An additional benefit of the Mark Twain project is that it reduces the loading on the existing transmission lines.

The net additional energy imports into the Ameren Missouri control area that are enabled by the Mark Twain project were approximately 290 MW. For these conditions, the energy flow on the Mark Twain line was approximately 514 MW, as compared to the line's capacity of approximately 1,793 MVA. This means that after the Mark Twain project is in-service and supplying additional energy to Ameren Missouri, the line will still have sufficient capacity for additional energy to flow into the Ameren Missouri control area, including additional wind energy, as well as capacity to connect new wind resources in Zone MO-C, which is located north and east of Kirksville in Missouri.