BEFORE THE PUBLIC SERVICE COMMISSION
STATE OF MISSOURI

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 in from Palmyra, Missouri to the Iowa Border and Associated Substation near Kirksville, Missouri.	)	No. EA-2015-0146

REPLY BRIEF
BY THE
MIDCONTINENT INDEPENDENT SYSTEM OPERATOR, INC.

I. INTRODUCTION

The Midcontinent Independent System Operator, Inc. ("MISO") supports approval of ATXI's planned Mark Twain Project.[1] The briefs submitted to the Public Service Commission of Missouri ("Commission") generally support the Mark Twain Project based upon its net benefits. Of the parties submitting briefs, ATXI (applicant), MISO,[2] and United for Missouri[3] all support approval of the Mark Twain Project. The Commission Staff takes the position that the factors stated in *Tartan*[4] normally evaluated by the Commission are all met,[5] although formal "issuance" of a CCN is not recommended by the Staff at this time based upon a legal argument.[6] Only Neighbors United disputes the overwhelming evidence that the Project is necessary and in the public interest. The arguments of Neighbors United are the main subject of this Reply Brief.

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1 The abbreviations used in MISO's Initial Brief are incorporated in this Reply Brief.
2 MISO Brief at 1.
3 United for Missouri at 1.
4 *In re Tartan Energy Company*, 3 Mo. P.S.C. 173, 177 (1994).
5 Staff Brief at 8-20.
6 *Id*. at 31.

The Neighbors United Brief blurs the roles played by various entities, at one point stating that "the authority of MISO to obligate the construction of transmission encroaches on the regulatory authority of state public utilities commissions, like the Missouri PSC."[7] MISO is a regional transmission organization ("RTO"), under the supervision of the Federal Energy Regulatory Commission ("FERC") and other federal authorities,[8] that (among other matters) is responsible for ensuring that the regional transmission system is reliably planned to provide for existing and expected use of that system.[9] MISO performs collaborative planning functions for the transmission system with its member transmission owners and other stakeholders while independently assessing regional transmission needs.[10] MISO identified the Project as an important link in the transmission system.[11] Such identification in MISO's collaborative planning process creates an obligation for a transmission project developer to move forward with efforts to build the project.[12] The absence of such a contractual (not regulatory) arrangement would compromise the effectiveness of the regional (optimizing) planning function.

Neighbors United also faults MISO for not identifying "specific rate benefits the Mark Twain line [will] provide[ ] to Missouri ratepayers."[13] MISO witness Smith, responding to a question about customer "pocket book" effects, testified that failure to construct the Project would result in "the market cost for energy . . . start[ing] to separate from the rest of the footprint."[14] The separation would provide differences in the wholesale cost of energy available

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7 Neighbors United Brief at 24.
8 Ex 35 at 2-3 (MISO's Smith Surrebuttal); Ex. 1 at 6 (ATXI's Borkowski Direct) ("MISO's FERC-approved Tariff").
9 Ex. 35 at 4 (MISO's Smith Surrebuttal); Ex. 3 at 6 (ATXI's Kramer Direct).
10 Ex. 35 at 4 (MISO's Smith Surrebuttal); Ex. 3 at 7 (ATXI's Kramer Direct).
11 Ex. 35 at 8 (MISO's Smith Surrebuttal); Ex. 3 at 10 (ATXI's Kramer Direct).
12 Tr. Vol. 9 at 605:12 (MISO's Smith, responding to a question by Chairman Hall).
13 Neighbors United Brief at 34.
14 Tr. Vol. 9 at 588:18-19 (MISO's Smith).

to Missouri and non-Missouri portions of the MISO footprint.[15] Without the Project, the Commission would forego prospects for lower retail rates associated with lowered wholesale energy prices.[16] A reduction in retail rates cannot be accomplished by focusing, as suggested in the Neighbors United Brief, merely on cost reductions in percentage terms.[17] The Commission should reject the invitation by Neighbors United to ignore the sizable net benefits provided by the Project.[18]

II. THE PROJECT IS NEEDED AND PROMOTES THE PUBLIC INTEREST

Neighbors United misses the importance of the Project as part of a Multi-Value Project portfolio of transmission upgrades – meaning providing net economic benefits (reducing production and operating reserve costs, deferring generation investment, and providing other benefits related to capital investments[19]), enabling the satisfaction of renewable portfolio standards,[20] and helping ensure future reliability of the local and regional transmission systems.[21] Instead, Neighbors United focuses on the possibility that other measures can be taken to address the need for additional renewables[22] and still others to address reliability issues.[23] This myopic approach ignores the extensive, multi-year, collaborative planning effort that afforded not only

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15 *Id*. at 588:24 through 589:4.
16 *Id*. at 593:16 through 594:2.
17 Neighbors United Brief at 35.
18 *Id*. at 35 and 36; *contrasting approach recognizing net benefits, see, e.g.*, Ex. 21, Schedule TS-03, Table 4 (ATXI's Schatzki Direct).
19 Ex. 35, Schedule JTS-1 at page 052 (MISO's Smith Surrebuttal) (page 49 of the report, followed by explanations in Section 8 of the report).
20 Ex. 35 at 10 (MISO's Smith Surrebuttal).
21 *Id*. at 9 and 14; Ex. 3 at 9-10 (ATXI's Kramer Direct) (renewable standards and economic benefits) and 14 (reliability benefits).
22 Neighbors United Brief at 35.
23 *Id*. at 23 and 28.

transmission owners but also state regulatory personnel and other stakeholders the opportunity to participate in a process that resulted in broad benefits from the MVP portfolio.[24]

The need for the Project and the manner in which it serves the public interest was succinctly stated in MISO's Brief, quoted from the testimony of MISO witness Smith who discussed the broad approach that should be considered.[25]

> MISO's Triennial Review identified benefits of $21,451-$66,816 million associated with the cost of $8,303-$17,192 million for the MVP portfolio (page 25, 2014 constant dollars, [Ex. 35, Schedule JTS-2, page 026]). The majority of the benefits are found in reducing congestion-driven production costs, providing for more efficient dispatch of generators by using lowest cost generation throughout the MISO footprint. The Mark Twain project provides Missouri access to the regional, zero production cost of the renewable energy, and takes advantage of the efficiencies of participation in the multi-state energy trading construct
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> Additionally, the increase of transfer capability between states allows for Missouri residents to benefit from a broader resource pool for resource adequacy, reducing the need for investment in future generating resources through the management of resource reserve targets and reductions in losses on the system. The optionality produced by the MVP portfolio provides for balancing the cost of renewable resource investment by allowing states to develop resources locally or take advantage of higher capacity factor regions that reduce the capital investment necessary to meet the energy requirements of most renewable policy regulations, such as those in Missouri.
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> The MVP portfolio also allows for the deferral of other transmission investments such as those suggested by [Neighbors United witness] Mr. Powers that would be required for the reliability of the system in the absence of the Mark Twain and other MVP projects. In all, the MVP portfolio creates benefit to cost ratios of 1.8 to 3.0 as identified under MTEP 2011 assumptions, and 2.6 to 3.9 as identified

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[24] Ex. 35 at 11-12 (MISO's Smith Surrebuttal); Ex. 1 at 5 (ATXI's Borkowski Direct); Ex. 3 at 10 (ATXI's Kramer Direct). The extensive stakeholder involvement in MVP planning is partly reflected in the MVP Project Portfolio Report that is part of filed testimony. *See* Ex. 35, Schedule JTS-1 at page 024 (MISO's Smith Surrebuttal) (page 21 of the report, Section 4.5, "Stakeholder Involvement").

[25] MISO Brief at 7, *citing* Ex. 35 at 15-16 (MISO's Smith Surrebuttal). The sole point of criticism by Mr. Powers that MISO's analyses are "obsolete" is the place held by wind power as the renewable source in the future. Tr. Vol. 7 at 354:22-355:9 (Neighbors United's Powers). This criticism was addressed previously (MISO Brief at 9) and also below.

> under Triennial Review assumptions. The Missouri ratios are 2.0 to 2.9 and 2.3 to 3.3, respectively.

MISO witness Smith's discussion of the main economic benefit to Missouri from "reducing congestion-driven production costs"[26] is the source of the reduced wholesale cost of electricity (noted above) that is ignored by Neighbors United.

Neighbors United questions the future development and economics of wind power sources to meet Missouri's Renewable Energy Standard requirements.[27] The argument ignores MISO witness Smith's testimony that the "optionality produced by the MVP portfolio . . . allow[s] states to develop resources locally or take advantage of higher capacity factor regions that reduce the capital investment necessary to meet the energy requirements of most renewable policy regulations, such as those in Missouri."[28] And it is Neighbors United, not MISO witness Smith, that "misleads the Commission"[29] concerning the significance of the Interconnection System Impact Study Report whose Final Report was issued on August 7, 2007.[30] Neighbors United states that "MISO has already demonstrated that 300 MW of new wind power can be

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26 Ex. 35 at 15 (MISO's Smith Surrebuttal).

27 Neighbors United Brief at 25.

28 Ex. 35 at 16 (MISO's Smith Surrebuttal).

29 Neighbors United Brief at 26, referring to live testimony submitted by MISO's witness Smith.

30 Ex. 42, PE-10 (cover page to MISO study stating the date) (Neighbors United's Powers Rebuttal). Attachment PE-10 contains cover pages, a table of contents, a one-page executive summary, and page 5 of a report issued by MISO in 2007. Mr. Smith, a MISO planning engineer, was available for questioning at the hearing. Instead of cross examining Mr. Smith regarding a MISO planning document, counsel for Neighbors United accuses Mr. Smith of "misleading the Commission" and then cites to pages 38-39 of an interconnection study that was not included in attachment PE-10 to Mr. Power's Rebuttal Testimony. The result is counsel's interpretation of material outside the record that was therefore unavailable for comment by a qualified MISO witness (or a witness for any other party). Put on notice of MISO's concerns, counsel for Neighbors United stated that this matter would be addressed in the Neighbors United Reply Brief.

delivered over the existing 161 kV lines in NE MO."[31] Neighbors United concludes – after citing out-of-record material – that a windfarm studied by MISO in 2007 "implicitly [would] produce up to its 300 MW capacity at other off-peak periods when there is ample spare capacity on the existing transmission system."[32] Neighbors United thereby assumes a result that it desires – ample spare capacity under current conditions – that is not explicitly supported anywhere in the record.

The transmission system as it stands today is not the subject of the interconnection study mentioned by Neighbors United, a warning about which is contained in the "Study Assumptions" stated in the portion of the MISO study that is attached to the Powers Rebuttal Testimony.[33] MISO witness Smith stated at the hearing that "since 2007 there have been a number of changes, and generation or connection studies are dependent upon the [generation] fleet that exists at the time of the study as well as the transmission infrastructure at the time of the study."[34] The record portion of MISO's interconnection study refers to making the wind project "fully deliverable,"[35] which was explained by MISO witness Smith at hearing as 60 MWs (not 300 MW as Neighbors United claims).[36] The 2007 interconnection study relied upon by Neighbors United is uninformative on the issue of whether to construct the Mark Twain Project.

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31 Neighbors United Brief at 26.

32 *Id*. at 27.

33 Ex. 42, PE-10, page 4 of the report ("1.6 Study Assumptions") ("If these assumptions change, . . . additional analysis may be required to determine if there are impacts on the study results.").

34 Tr. Vol. 9 at 572:16-20.

35 Ex. 42, PE-10, page 4 of the report ("1.5 Deliverability Analysis") (Neighbors United's Powers Rebuttal).

36 Neighbors United Brief at 25, *citing* Tr. Vol. 9 at 573:23-25 through 574:1-13 (actually located on transcript pages 572-573).

Neighbors United argues that MISO's analyses are "obsolete" based upon "failure to consider a more cost-effective solar alternative . . . ."[37] MISO witness Smith testified that most of the benefits that will accrue to Missouri are based upon reduced generation costs based upon construction of the MVP portfolio.[38] Mr. Smith stated that "[w]hether Missouri has an RES [*i.e.* Renewable Energy Standard] or not, whether Missouri builds locally or not, the MVP lines, especially the Mark Twain line . . . [and] the MVP lines in the portfolio associated with it provide access to that regional economic generation. * * * [I]t is going to impact the production costs across the system, and it should lower that wholesale energy cost."[39]

Neighbors United relies upon the testimony of its witness, William Powers,[40] who is a solar power advocate. MISO witness Smith testified that Mr. Powers "mixes reports from different sources and different years" to cobble together a preference for solar power.[41] Using a source used by Mr. Powers (*i.e.* U.S. Energy Information Administration's Assumptions to the Annual Energy Outlook 2015) that "includes both a wind and solar capital cost," MISO witness Smith noted that the cost for wind projects is significantly less than for photovoltaic projects.[42] The weakness of Mr. Powers' comparisons was evident by a number of exhibits submitted on cross-examination, including Ex. 70 showing the EIA's comparison of the levelized cost of electricity for years 2020 (Table 1) and 2040 (Table A5). Both show a cost advantage for wind power, even after an investment tax credit for solar technologies is considered. Going beyond

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37 Neighbors United Brief at 35.

38 Ex. 35, Schedule JTS-1 at page 052 (MISO's Smith Surrebuttal) (page 49 of the Multi Value Project Portfolio Report, Figure 8.1 and Section 8.1).

39 Tr. Vol. 9 at 594:9-16 (MISO's Smith).

40 Neighbors United Brief at 35.

41 Ex. 35 at 17 (MISO's Smith Surrebuttal).

42 *Id.* at 18, referring to attached pages of the U.S. EIA report in Schedule JTS-3 to the Smith Surrebuttal.

the government reports, Neighbors United refers to a solar project in Cedar Falls, Iowa.[43] But MISO's broader experience for the footprint using the current state of MISO's interconnection queue shows heavy reliance on wind power among renewables.[44]

Neighbors United misstates the record, arguing (without citation) that a "large part of the impetus for the MTTP [*i.e.*, the Mark Twain Project] was to increase wind development to comply with the CPP [Clean Power Plan]."[45] The MVP portfolio was approved as part of MTEP for 2011,[46] well before the CPP was issued. The report on the MVP portfolio states that benefits could greatly increase above those stated for MISO's business case if carbon constrained policies move forward.[47] But that business case, like the case for the Triennial Review conducted in 2014 that redid the economic analysis, did not include the CPP.[48] Commission Staff witness Beck noted the CPP, stating that "a transmission line that would strengthen ties to other states provides for additional flexibility to meet the requirements of the CPP."[49] That testimony echoed MISO witness Smith discussion of the need to address uncertainty in generation supply options through the development of a robust transmission system that could serve multiple future

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43 Neighbors United Brief at 35. Mr. Powers brought up a Cedar Falls "community power program" for the first time during redirect examination. Tr. Vol. 7 at 436:15-16. The record reveals virtually nothing about the program (*e.g.* size, configuration, design) or the specific reasons Cedar Falls might have elected to pursue the program. A single such project does not change the comparative cost advantage of wind over solar power, especially without this vital information.

44 *Id.* at 18-19 ("ratio of wind to solar . . . as of October 2015 [2015] was 17 to 1").

45 Neighbors United Brief at 4.

46 Ex. 35 at 11-12 (MISO's Smith Surrebuttal); Ex. 1 at 5 (ATXI's Borkowski Direct); Ex. 3 at 10 (ATXI's Kramer Direct). The extensive stakeholder involvement in MVP planning is partly reflected in the MVP Project Portfolio Report that is part of filed testimony. *See* Ex. 35, Schedule JTS-1 at page 024 (MISO's Smith Surrebuttal) (page 21 of the report, Section 4.5, "Stakeholder Involvement").

47 Ex. 35, Schedule JTS-1 at page 072 (MISO's Smith Surrebuttal) (Figure 8.13, "Benefit-cost variation due to business case assumptions").

48 *Id.* at 8-9 (MISO's Smith Surrebuttal).

49 *Id.* at 9.

conditions.[50] Compliance with the CPP was not part of the planning for the MVP portfolio, but implementation of the CPP or the imposition of other carbon constraints would result in even greater benefits for the more robust transmission system provided by the MVP portfolio.[51]

Neighbors United mischaracterizes the record regarding whether "some or all of the power generation utilizing the Mark Twain line could be natural gas-fired power . . . ."[52] Access to transmission lines must be nondiscriminatory,[53] but a "fully used" condition for the completed Project by gas-fired power is unlikely.[54] The design of the portfolio provides a "holistic solution for delivering transmission improvements considering generation, transmission, and other factors under a range of future conditions."[55]

Neighbors United complains that "ATXI inappropriately dropped its evaluation of alternatives to the MTTP when the MISO Board of Directors approved the MVP Portfolio containing the MTTP."[56] ATXI witness Kramer testified regarding the reliability concerns, stating that the "addition of the Mark Twain Project will provide a new 345-kV source to the northeastern Missouri area that will maintain adequate system voltages for the identified NERC Category C contingencies and prevent loss of customer loads."[57] Mr. Kramer also testified that failure to build the Project while 345 kV improvements are made elsewhere will require planners

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50 Ex. 35 at 20 (MISO's Smith Rebuttal) ("The MVP portfolio, including the Mark Twain project, provides a robust transmission supply that will be available to provide needed support to maintain reliable service under changing needs."). *See also* Tr. Vol. 9 at 600:1-25 through 601:1-13 (MISO's Smith) (dealing with a carbon-constrained world).

51 *See, e.g.*, Tr. Vol. 9 at 601:11-13 (MISO's Smith).

52 Neighbors United Brief at 35.

53 Tr. Vol. 9 at 286:12 (MISO's Smith).

54 *Id*. at 286:16 ("likely," "no").

55 Ex. 35 at 15 (MISO's Smith Surrebuttal).

56 Neighbors United Brief at 23. *See also* Neighbors United Brief at 28.

57 Ex. 3 at 14 (ATXI's Kramer Direct)

to address additional reliability problems in the future.[58] But resolving these concerns separately is less optimal than constructing the Mark Twain Project since the Project carries with it large benefits in addition to resolving reliability concerns.[59] MISO witness Smith testified that:[60]

> One effect of the MVP upgrades is to support local transmission reliability. This effect pushes out the timing of reliability-based transmission projects. The reliability benefit is quantified in MISO's MVP studies under the category of deferred future transmission investment. However, as stated earlier in my testimony, the largest category of benefits from the MVP portfolio of projects is generator production cost reductions. The benefit from deferred transmission investment is a small portion of the quantified benefits of the MVP projects . . . .

A benefit of the MVP projects is to push out the need for reliability-based transmission projects.

The Mark Twain Project is a Multi Value Project that provides net economic benefits while enabling the expansion of renewable generation sources and improving the reliability of area transmission service. The Project, along with the MVP portfolio of transmission projects, provides a "holistic solution for delivering transmission improvements."[61]

III. CONCLUSION

The timely construction of the Mark Twain Project is important to deliver the benefits of the Project in particular, and the benefits of the MVP portfolio in general, to Missouri and the region. MISO respectfully requests that the Commission grant a Certificate of Public Convenience and Necessity to ATXI and issue an order that authorizes construction of the Mark Twain MVP Project.

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58 Tr. Vol. 5 at 200:10-17 (ATXI's Kramer) ("we have to take . . . stopgap measures").

59 Ex. 35 at 15 (MISO's Smith Surrebuttal) ("narrow focus on reliability does not recognize the MVP benefits obtained from the portfolio").

60 *Id*. at 14 (emphasis added).

61 *Id*. 15.

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Respectfully submitted,

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Certificate of Service

I hereby certify that a true and correct copy of the foregoing was e-mailed on this 18th day of March 2016 to the persons on the Commission's service list in this case.

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