

**ILLINOIS COMMERCE COMMISSION**

**DOCKET NO. 12-0598**

**REVISED REBUTTAL TESTIMONY**

**OF**

**JEFFREY R. WEBB**

**Submitted on Behalf**

**of**

**MIDCONTINENT INDEPENDENT SYSTEM OPERATOR, INC., F/K/A  
MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.**

**OFFICIAL FILE**

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**WITNESSED** Webb  
**DATE** 5/14/13 **PREPARED BY** KW

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**MIDWEST INDEPENDENT TRANSMISSION SYSTEM OPERATOR, INC.**

**I. INTRODUCTION**

**Q. Please state your name.**

**A. My name is Jeffrey R. Webb.**

**Q. Have you previously submitted testimony in this case?**

**Yes. My prefiled, direct testimony was submitted in November 2012. My direct testimony stated, among other matters, my professional qualifications and responsibilities. It also supported approval of the Illinois Rivers Project.<sup>1</sup>**

**Q. Please summarize your professional background.**

**A. I hold a bachelor's degree and a master's degree in electrical power engineering from Rensselaer Polytechnic Institute. I have taught courses in circuit analysis,**

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<sup>1</sup> This rebuttal testimony uses the same abbreviations as those found in my previously filed direct testimony.

21 distribution system analysis, and electric power system analysis at the Illinois  
22 Institute of Technology. In addition, I have served on national and regional  
23 groups dedicated to ensuring transmission system reliability.

24

25 My professional career began at Commonwealth Edison Company (“ComEd”) in  
26 1976 as a Transmission Planning Engineer. Between 1988 and September of  
27 2000, I held a variety of supervisory and management positions in the bulk power  
28 planning area of ComEd, including Technical Studies Supervisor, Bulk Power  
29 Planning Supervisor, System Planning Engineer, and Transmission Planning  
30 Manager.

31

32 I joined MISO in 2000, where I currently serve as the Senior Director of  
33 Expansion Planning. My duties include directing the evaluation of reliability  
34 studies in support of the development of MISO’s transmission expansion plan  
35 (“MTEP”), and the overall coordination of planning study results to form a  
36 cohesive regional transmission expansion plan. The region currently served by  
37 MISO (its “footprint”) extends from Indiana to Eastern Montana and includes the  
38 Canadian province of Manitoba. MISO’s footprint includes most of Illinois, with  
39 the exception of the portion served by ComEd in the north.

40

41

42

43 **II. PURPOSE AND SCOPE**

44 **Q. What is the purpose of your rebuttal testimony?**

45 A. The purpose of this rebuttal testimony is to state concerns that I have regarding  
46 the prefiled testimony submitted by witnesses Ragheb (Ragheb Family Ex. 1.0),  
47 Dauphinais (MPCO Ex. 1.0), and Rockrohr (ICC Staff Ex. 1.0).

48

49 **III. RESPONSES TO TESTIMONY BASED UPON SOUND REGIONAL**  
50 **TRANSMISSION PLANNING**

51 **A. Ragheb Testimony**

52 **Q. What concerns do you have regarding the testimony submitted by Dr.**  
53 **Ragheb?**

54 A. I disagree with Dr. Ragheb's general thesis that MISO and ATXI have not  
55 carefully planned the Project that is under consideration in this proceeding. Dr.  
56 Ragheb explains that he "supports the development of renewable energy  
57 resources, particularly wind resources in the Midwest, and acknowledges that  
58 adequately designed transmission lines are needed to effectively dispatch the  
59 electricity from the generation location to consumers."<sup>2</sup> The Illinois Rivers  
60 Project has been carefully and more than adequately planned to support renewable  
61 energy development as well as provide other benefits described in my direct  
62 testimony.

63

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<sup>2</sup> Ragheb Family Ex. 1.0, pages 6-7.

64 **Q. What does Dr. Ragheb state as his arguments against the Project?**

65 A. Dr. Ragheb states his two basic arguments against the design of the Project on  
66 page 7 of his testimony. He states that the design was (i) “rush[ed]” and (ii) not  
67 “compar[ed] [to] alternative approaches to . . . show[ ] that the chosen alternatives  
68 do indeed satisfy the reliability, safety and economic requirements.”

69

70 **The Project Was Not Rushed, and Considered Alternative Designs**

71 **Q. Addressing Dr. Ragheb’s arguments, was the design of the Project rushed?**

72 A. No.

73 **Q. Please describe the overall process by which the Illinois Rivers Project**  
74 **became a part of the MVP portfolio of projects.**

75 A. As I discuss in my direct testimony, beginning at page 17, MISO undertook a  
76 multi-year planning process aimed at addressing the regional transmission plans  
77 necessary to enable RPS mandates to be met at the lowest delivered wholesale  
78 energy cost.

79

80 An early step in MISO’s planning effort was the Regional Generation Outlet  
81 Study (“RGOS”), which was conducted between 2008 and 2010.<sup>3</sup> The RGOS  
82 initiative identified candidate transmission projects that would be compatible with  
83 future system development of high voltage 345 kilovolt (“kV”) and 765 kV lines

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<sup>3</sup> See MISO’s Regional Generation Outlet Study, publicly available at:  
<https://www.midwestiso.org/Planning/Pages/RegionalGenerationOutletStudy.aspx>.

84 as well as high voltage direct current (“HVDC”) options. I attach to this rebuttal  
85 testimony the list of team members and contributors to RGOS (Attachment A).  
86 The list includes MISO and Ameren Transmission Company/Ameren Services  
87 Company personnel, but also a large group of other representatives from utilities,  
88 transmission companies, wind power developers, and others. This group included  
89 representatives from American Electric Power, a company mentioned in Dr.  
90 Ragheb’s testimony and the originator of one of his attachments.<sup>4</sup> The RGOS  
91 work was preceded by a joint study led by MISO, referred to as the Joint  
92 Coordinated System Plan, which was an inter-regional planning effort involving  
93 most of the major transmission operators in the Eastern Interconnection. That  
94 study identified conceptual transmission improvements under several renewable  
95 energy scenarios, and offered insights for long-term transmission development.  
96 However, the study did not constitute a national plan of any sort.<sup>5</sup>

97  
98 The indicative plans from the RGOS initiative were further developed in MISO’s  
99 MTEP process. To develop the MVP, a Technical Study Task Force (“TSTF”) --  
100 comprised of regulators, wind power developers, TOs, and participants in MISO’s  
101 wholesale markets -- met with MISO engineers no less than monthly to guide the  
102 MVP study process. Regular updates were provided to the MISO Planning

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<sup>4</sup> Ragheb Family Ex. 1.0, pages 20-21 and associated Ragheb Family Ex. 1.6.

<sup>5</sup> There is no “nationwide plan[ ] call[ing] for 745kV AC or HVDC transmission facilities,” as stated by Dr. Ragheb on page 9 of his testimony. Some authors and entities have circulated such ideas as part of conceptual plans, as shown in Ragheb Family Ex. 1.6 (AEP’s “Interstate Transmission Vision for Wind Integration”).

103           Advisory Committee, Planning Subcommittee, and other MISO stakeholder  
104           groups. Over 200 such stakeholder meetings were held during the 2008-2011  
105           time period. The MVP portfolio was approved in MTEP 11 in this collaborative  
106           fashion to effectively meet the Renewable Portfolio Standards in effect within  
107           MISO and to provide additional benefits attributable to the Project. The Illinois  
108           Rivers Project is part of that MVP portfolio.

109   **Q.    Was there a rush to address the more localized needs in development of the**  
110           **Illinois Rivers Project?**

111           A. No. MISO set out, with its MVP portfolio analysis that I described previously, to  
112           take advantage of the link between local and regional reliability and economic  
113           benefits. Representatives of transmission owners, such as those from Ameren  
114           Services, identified potential transmission expansions that also met more localized  
115           needs in Illinois and other regions.<sup>6</sup> The stakeholder process, through which the  
116           elements that comprise the Illinois Rivers Project were made part of the MVP  
117           portfolio, involved years of work.

118

119           **Alternatives were Considered, and the Project was Selected**

120   **Q.    Addressing another of Dr. Ragheb's arguments, were alternative designs**  
121           **considered in the analyses that resulted in formulation of the MVP portfolio?**

---

<sup>6</sup> Local system needs and benefits of the Illinois Rivers Project are described in the direct testimony of ATXI Witness Kramer.

122 A. Yes. Each of these studies considered options involving building at the 345 kV  
123 and 765 kV level, as well as building HVDC facilities.<sup>7</sup> The MVP portfolio is  
124 compatible with all of these designs for further development of the transmission  
125 system.

126 **Q. Why were alternative voltages and technologies not selected for the MVP**  
127 **portfolio?**

128 A. These designs were more suitable for meeting RPS requirements in a region  
129 broader than the MISO footprint, where there may be an increased need for  
130 exports. In contrast, the MVP portfolio is suitable for meeting the RPS  
131 requirements in the MISO region. In addition, development of higher voltage  
132 solutions would require close coordination with development of interconnecting  
133 facilities in adjacent regions. The plans for those regions to meet requirements for  
134 the development of renewables have not been solidified. MISO does not believe  
135 that delay in the implementation of transmission upgrades that provide for the  
136 satisfaction of RPS requirements in the MISO region and for achieving the  
137 benefits of the MVP portfolio can wait for these additional, external  
138 developments. Design at these alternative voltages and using alternative  
139 technologies is not required.

140

141

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<sup>7</sup> One project in the MVP portfolio, MVP14, is a 765 kV transmission line located in Indiana that was selected as a superior alternative to upgrading a 345 kV line in the area. See footnote 3.

142           **B.     Dauphinais Testimony**

143   **Q.     What concerns do you have regarding the testimony submitted by Mr.**  
144           **Dauphinais?**

145   A.     The portion of Mr. Dauphinais' testimony that discusses design of the Illinois  
146           Rivers Project (as opposed to site selection)<sup>8</sup> attempts to re-engineer a high  
147           voltage transmission line by litigation rather than by means of the extensive,  
148           transparent, and collaborative process that I have discussed in this rebuttal  
149           testimony and that was used to develop the Illinois Rivers Project as a part of  
150           MISO's MVP portfolio. This FERC Order 890-compliant regional planning  
151           process provides ample opportunity for stakeholder vetting of alternative  
152           proposals in a manner that includes all stakeholders in MISO's regional planning  
153           process. Mr. Dauphinais' alternative proposals to the Mt. Zion substation and  
154           transformer are matters in which all stakeholders in the MTEP process should be  
155           permitted to engage.

156   **Q.     Can you explain your disagreement with Mr. Dauphinais' approach in more**  
157           **detail?**

158   A.     Yes. The Illinois Rivers Project, as designed, has been evaluated by MISO and its  
159           stakeholders as providing a 345 kV connection at a new Mt. Zion substation. The  
160           MISO regional planning process adheres to the FERC Order 890 open and  
161           transparent planning principles. This process involves numerous evaluations of  
162           project proposals and their effectiveness, as I have described earlier in this rebuttal

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<sup>8</sup> See MPCO Ex. 1.0, pages 44-68.

163 testimony, and provides multiple opportunities for stakeholders to review project  
164 need, design, and effectiveness. Throughout the multi-year planning process  
165 involved in developing the MVP portfolio (including the Illinois Rivers Project), this  
166 project has been considered and finally approved by MISO's Board of Directors as an  
167 integral part of the transmission system in MISO's footprint. In order for the regional  
168 planning process to be as effective as possible, stakeholders should make every effort  
169 to identify and address, within the regional planning processes potential issues that  
170 could result in redesign.

171

172 When a project is redesigned after the extensive regional planning process, MISO  
173 must ensure that the redesigned project will continue to meet the initial needs  
174 ascribed to the project. This review process should involve engaging MISO  
175 stakeholders (and finally MISO's Board of Directors) to ensure continued  
176 transparency surrounding project development and cost evaluation. In the worst case  
177 scenario, such reengagement could lead to delays in the completion of an urgently  
178 needed project that may take years to construct. In addition, after a project is  
179 approved for the regional plan, that project is assumed to be a part of the base  
180 plan, and incremental system needs are identified relying upon that base plan.  
181 While modifications may occur to approved plans, such changes have ripple  
182 effects on the identification of necessary projects in subsequent planning cycles.  
183 These ripple effects can contribute to delays in addressing other transmission  
184 system needs. For these reasons, modifications to projects subsequent to the

185 collaborative regional planning process should be minimized to the extent  
186 possible.

187 **Q. Was the Mt. Zion substation and transformer part of the model and design**  
188 **of the MVP that was evaluated by MISO and discussed with MISO**  
189 **stakeholders during the lengthy MVP open and transparent planning**  
190 **process?**

191 A. Yes. Because the development of the Mt. Zion facilities as a solution to local area  
192 reliability issues are facilitated by the development of the MVP, these facilities  
193 are included in the overall MVP facilities.

194 **Q. How would MISO categorize planned facilities that would provide a**  
195 **transmission solution to a local area reliability issue if such an improvement**  
196 **did not depend on the MVP for its implementation, such as the alternative**  
197 **proposal for local area support described by Mr. Dauphinais?**

198 A. These facilities would be baseline reliability projects.

199 **Q. As a baseline reliability project, how would the costs be recovered for the**  
200 **alternative local area solution?**

201 A. Costs for baseline reliability projects are recovered from the ratepayers of the  
202 local area utility rather than from ratepayers region-wide. Region-wide recovery  
203 of costs applies to MVP facilities.

204

205

206

207 C. Rockrohr Testimony

208 Q. What concerns do you have regarding the testimony submitted by Mr.  
209 Rockrohr?

210 A. I have concerns about two aspects of Mr. Rockrohr's recommendations. First,  
211 Mr. Rockrohr recommends that several 345/138 kV transformer installations not  
212 be approved in this case because Ameren Illinois Company ("AIC") has not stated  
213 its intention in this docket to connect to these proposed transformers.<sup>9</sup> Second,  
214 Mr. Rockrohr recommends that certain facilities be excluded from approval  
215 because they "appear to be unnecessary"<sup>10</sup> and that certain line segments be  
216 excluded from any approvals.<sup>11</sup>

217

218 Ameren Illinois Is Obligated To Connect Its Facilities

219 Q. Can you further explain your concerns over Mr. Rockrohr's  
220 recommendations?

221 A. Yes. With respect to my first concern regarding the connection of transformers,  
222 the Project can only achieve all of its intended benefits if the 345/138 kV  
223 transformers that are part of the Project are installed and connected to the AIC  
224 system. Both ATXI and AIC are MISO TOs, and both have an obligation under  
225 MISO's TOA to support projects approved by MISO's Board of Directors.

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<sup>9</sup> ICC Staff Ex. 1.0, pages 2-3.

<sup>10</sup> *Id.*

<sup>11</sup> *Id.*, page 3.

226 The obligation by AIC to interconnect with the new 345/138 kV transformers is  
227 contained in portions of the TOA, as reproduced here:

228

229 **Each Owner shall use due diligence to construct transmission**  
230 **facilities as directed by the Midwest ISO** in accordance with  
231 Article Three, Section I, Paragraph C of this Agreement and  
232 Appendix B to this Agreement, subject to such siting, permitting,  
233 and environmental constraints as may be imposed by state, local,  
234 and federal laws and regulations, and subject to the receipt of any  
235 necessary federal or state regulatory approvals. Such  
236 construction shall be performed in accordance with Good Utility  
237 Practice, industry standards, and any applicable requirements of  
238 federal or state laws or regulatory authorities.<sup>12</sup>

239

240 Approval of the Midwest ISO Plan by the Board certifies it as the  
241 Midwest ISO's plan for meeting the transmission needs of all  
242 stakeholders subject to any required approvals by federal or state  
243 regulatory authorities. The Midwest ISO shall provide a copy of  
244 the Midwest ISO Plan to all applicable federal and state

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<sup>12</sup> TOA, Version: 0.0.0 Effective: 7/31/2010, Art. Four, Section I, C ("Rights, Powers, and Obligations of the Owners and Users") (emphasis added), publicly available at: <https://www.misoenergy.org/Library/Repository/Tariff/Rate%20Schedules/Rate%20Schedule%2001%20-%20Transmission%20Owners%20Agreement.pdf>.

245 regulatory authorities. **The affected Owner(s) shall make a**  
246 **good faith effort to design, certify, and build the designated**  
247 **facilities to fulfill the approved Midwest ISO Plan.**<sup>13</sup>  
248

249 The Illinois Rivers Project has been approved by MISO's Board, and AIC is  
250 obligated under the TOA to support that decision. MISO expects AIC, as one of  
251 its TOs, to timely connect its facilities to the Illinois Rivers Project once those  
252 facilities are in place.  
253

254 **The Project Should Not Be Significantly Re-Designed**

255 **Q. Can you further explain your concern over the recommendation that certain**  
256 **facilities and/or line segments should be excluded from the approvals**  
257 **requested in this proceeding?**

258 **A.** From an overview basis, my response is the same as my response to the design  
259 criticism by Mr. Dauphinais. In order for the regional planning process to be as  
260 effective as possible, stakeholders should be involved in the regional planning  
261 processes so that they can vet issues that could result in redesign. As I stated in my  
262 direct testimony,<sup>14</sup> the purpose of MISO's extensive planning functions are to involve  
263 all stakeholders in a process that arrive at the most cost-efficient expansion plan that  
264 will meet local and regional needs for reliability, optimize access to economic power

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<sup>13</sup> TOA, Version: 0.0.0 Effective: 7/31/2010, Appendix B, Section VI ("Development of The Midwest ISO Transmission Plan") (emphasis added).

<sup>14</sup> MISO Ex. 1.0 (Webb Testimony), page 31, beginning on line 626.

265 resources, and deliver other important benefits for ultimate consumers and society as  
266 a whole.

267

268 The MTEP process designs a complex system that will serve both the short- and  
269 long-term needs of the electric grid. If a key element of the regional expansion plan  
270 is not constructed, especially a 'backbone' element designed for both reliability and  
271 economic attributes, considerable re-design could involve delay, additional costs  
272 (including the need for new generation), and impacts on transmission system  
273 reliability. The separate proceedings, recommended by Mr. Rockrohr for approval  
274 of portions of the Project,<sup>15</sup> raise the concern that I stated earlier in this rebuttal  
275 testimony: Hazards exist in connection with delay in the completion of the entire  
276 Project. The entire Project must be completed to achieve the benefits of urgently  
277 needed facilities that take years to construct.

278

279 **IV. CONCLUSION**

280 **Q. Has your recommendation in support of the Illinois Rivers Project, as**  
281 **proposed, changed as the result of the testimony filed by intervenors and the**  
282 **ICC Staff in this proceeding?**

283 **A.** No. The Project as proposed by ATXI is a necessary project that meets local load  
284 serving needs in the area. The Project is an integral part of MISO's Regional Plan

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<sup>15</sup> ICC Ex. 1.0, page 3.

285 for the continued development of a reliable and efficient regional transmission

286 system.

287 **Q. Does this conclude your prepared rebuttal testimony?**

288 **A. Yes, it does.**