

lines (Tr. p.341, l.21; p.342, l.6). Mr. Rockrohr noted that there are two 345kV power lines running north out of the Kincaid power station which are separated by a mile or more for much of their length, and these are an example of how a route designer could avoid or mitigate problems associated with parallel lines (Id. p.342, l.7-19). The Commission has observed that sufficient spacing between lines can avoid or mitigate operation and maintenance concerns; however, this is not the case with the MCPO route. MCPO's design of abutting easements for one-fifth of its route length<sup>2</sup> should give the Commission pause in light of such concerns.

**Staff testified that a longer route is more costly to operate and maintain.** Mr. Rockrohr stated his opinion that if the following three factors are present – (1) one line is shorter than the other, (2) both transmission lines have the same basic design, and (3) both transmission lines cross land with similar characteristics – then he would expect the shorter line to have lower maintenance costs (Tr. p.336, l.8-16). Here, there is no dispute that (1) the Channon/Staff routes are shorter than the MCPO route. There is also no dispute that (2) the 345kV line will have the same basic design regardless of which route is chosen. And ATXI witness Murphy has confirmed that (3) the MCPO route crosses land with the same characteristics as ATXI's routing (ATXI Ex. 13.0, p.53, l.1148-50). Therefore, the Channon/Staff routes are expected to have lower maintenance costs.

Mr. Rockrohr noted that in connection with another segment of the transmission project, he had disagreed with ATXI witness Donell Murphy's statement regarding the cost of operation and maintenance because she appeared to have ignored the length of one route over the other (Tr. p.338, l.24 - p.339, l.3). Mr. Rockrohr agreed that his criticism of Ms. Murphy's testimony could be

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<sup>2</sup>The MCPO route parallels existing transmission lines for 14.7 miles of its 70.7 mile length from the Option 1 substation site (MCPO Ex. 2.3 (RH), PDM Ex. 7.0, p.4, l.66-71).

equally applied to the Mt. Zion to Kansas segment because there is a 9-mile differential in length between the MCPO route and the Channon/Staff routes (Id. p.339, l.21; p.340, l.9).

**ATXI itself has submitted testimony that parallel lines increase operational concerns.**

ATXI witness Maureen Borkowski testified that constructing the proposed new 345kV line adjacent to an existing transmission line (1) increases the risk of outages (Ex. 10.0, p.8, l.158), (2) fails to maximize the reliability benefits of the new line (Id. l.158-59), (3) reduces benefits to customers (Id. l.160), and (4) erodes reliability (Id. l.165). ATXI considers these concerns so significant that it deemed them to be the “determinative factor” in ATXI’s recommendation on the Meredosia to Pawnee segment (Ex. 7.0, p.8, l.157). All of these concerns are clearly present on the MCPO route, one-fifth of which parallels existing transmission lines; whereas, none of these concerns are present on the Channon/Staff routes.

Similarly, ATXI witness Hackman testified that paralleling does not reduce operation and maintenance expenses (ATXI Ex. 12.0, p.5, l.106). He testified that with paralleling lines, maintenance of either line may require both lines to be taken out of service due to their proximity (Id.). Mr. Hackman testified that paralleling is “undesirable from an operations perspective” for this reason, and having two lines down risks the reliability of the system at large (Id., p.6, l.116). He also noted that adjoining rights of way are susceptible to common-mode failures, such as weather events (Id., l.117-19; p.7, l.139-48).

**The MCPO route not only parallels existing lines, it crosses back and forth over them.**

When ATXI developed its routing from Mt. Zion to Kansas, it chose not to parallel existing transmission lines, except in a very limited area at the Kansas substation. This is consistent with Ms. Murphy’s testimony that ATXI’s preference is to not parallel existing transmission lines when other

route options are available (ATXI Ex. 3.0 (RH), p.9, 1.103-105). ATXI argued in its brief in the underlying proceeding that additional operational and maintenance concerns are presented where the proposed transmission line crosses an existing transmission line. See ATXI Initial Brief, p.62-63, where ATXI argued that such a crossing “increases the reliability risks associated with one or more of the following: common structure, shield wire failure affecting lower conductors, conductor or insulator failure resulting in conductor vertical displacement and external common-mode failure events” (Id.). This argument has particular application to the MCPO route because there are not one but three instances where MCPO proposes its route to cross existing transmission lines: (1) the MCPO route crosses an existing 138kV line approximately fourteen miles north of the Kansas substation; (2) at the location where the existing 345kV line begins paralleling the 138kV line, the MCPO line crosses the existing 345kV line; and (3) north of the Kansas substation, the MCPO line crosses back over the existing 345kV line and runs between it and the 138kV line (PDM Ex. 8.0, p.17, 1.331-338).

**The MCPO route will have 50 more structures and spans to maintain.** ATXI witness Rick Trelz testified that the 345kV line averages 5.4 to 5.5 support structures per mile (Tr. of 5/14, p.406, 1.17). Therefore, the MCPO route will entail 50 more support structures than the Channon or Staff routes.

**The MCPO route is less accessible to roads than the Channon/Staff routes.** ATXI witness Jerry Murbarger, in response to a question from the bench in the underlying proceeding, testified that routing along roads is a consideration when looking at maintenance, because the lines are more accessible (Tr. of 5/14, p.388, 1.4-11). MCPO reports that 11.1 miles of the Channon route

run along roads from Staff's Option 1 site (MCPO Ex. 2.3 (RH)). Despite its longer overall length, the MCPO route only runs along roads for 6 miles from the Option 1 site (Id.).<sup>3</sup>

**The 9-mile longer MCPO route will have more impedance and exposure.** MSSCLPG witness Steven Lazorchak, P.E., C.E.M., a senior electrical engineer at Southern Illinois University, testified that a longer line will definitely be less efficient, because "less line equals less impedance" (MSSCLPG Ex. 12.0, p.2, 1.39-41). He also testified that a shorter line has less exposure to "lightning strikes, storm, and airborne debris putting the line out of service" (Id. 1.35-38).

**Summary.** Based on all of the evidence detailed above, the Channon and Staff routes clearly outperform the MPCO route on all components of this factor. Operational concerns over paralleling existing lines and the lack of spacing from those lines, proportionate increase in costs of the longer line, multiple criss-crossing of the existing lines, the additional structures and spans that are required to be maintained, less accessibility to the line, and greater impedance and exposure on the longer line all favor the Channon and Staff routes on this factor.

#### **4. Environmental Impacts.**

**The Commission's prior finding.** The Commission found in the underlying proceeding that the competing routes were comparable in terms of environmental impact (Final Order, p. 98). On rehearing, the MCPO route is now even longer than it was in the underlying proceeding, and the Channon and Staff routes are miles shorter than the competing routes in the underlying proceeding.

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<sup>3</sup> See also PDM Ex. 6.7, which shows that only 5.0 miles of the MCPO route runs along roads from the Sulphur Springs site.

This differential results in over nine additional miles of adverse environmental impact on the MCPO route.

**ATXI and Staff both testified that shorter routes have less environmental impacts.**

ATXI witness Murphy testified with respect to another segment of the transmission project that the competing routes had no unique environmental considerations, but that the shorter route “would result in incrementally less ground disturbance” (ATXI Ex. 3.0, p.7, Table 1). Mr. Rockrohr testified that he agreed that statement would be true for comparing any two routes (Tr. p.343, l.10-12). Mr. Rockrohr also testified that, aside from length, he was not aware of any unique differences between the routes on the Mt. Zion to Kansas segment regarding environmental impacts (Tr. p.342, l.23 - p.343, l.2). In short, both ATXI and Staff acknowledge that when all other environmental factors are equal, a shorter route will have less environmental impact than a longer route.

**That said, there has already been testimony submitted of specific environmental impacts on the MCPO route; there is no such testimony regarding the Channon/Staff routes.**

PDM witness Howard Kamm testified that MCPO’s route (1) will cut directly through a registered native American archeological site that is on file with the University of Illinois Archeological Survey and has yielded many important artifacts dating back thousands of years, (2) will require a grove of over 100 hybrid black walnut trees he planted 25 years ago to be cut down, and (3) will require the clearing of forest areas in the floodplain of the Lake Fork River (PDM Ex. 2).

**Summary.** Based on all of the evidence and testimony submitted during this case, and most notably the fact that the MCPO route is 9 miles longer, the Channon and Staff routes clearly outperform the MCPO route in regard to avoidance of environmental impacts.

## 5. Impacts on Historical Resources.

**The Commission's prior finding.** The Commission found that because the MCPO route "is roughly two miles further from the historical Amish areas," it was "marginally preferable" (Final Order, p.99). This conclusion is not supported by the evidence on rehearing. In fact, the evidence is unequivocal that the MCPO route is much closer to the historic Amish area of Arthur than the Channon and Staff routes. Reference to the route maps (MCPO Corrected Ex. 2.2, p.8, and ATXI Ex. 4.2 Part 70) shows the locations of the routes at their closest point to Arthur. And reference to any road map will show that the Channon/Staff routes are more than twice as far from Arthur (8 miles) as the MCPO route (3 miles; see also PDM Ex. 2, p.2). More specifically, testimony was submitted, as detailed below, that the MCPO route not only cuts right through the historical Amish areas but also right across the most frequently used gateways to that area. As a testament to the intrusiveness of the MCPO route into this area, over 80 residents of the Arthur community are members of the PDM group opposing the MCPO route.<sup>4</sup>

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<sup>3</sup> An objection to a question on this point was sustained (Tr. p.344, l.19). PDM respectfully requests the Commission reconsider such ruling for three reasons. First, Illinois caselaw makes clear that judicial notice may be taken of verified pleadings in a case, and it is "not necessary that [a party] formally offer [a pleading] into evidence." *State Farm Mutual Automobile Ins. Co. v. Grebner*, 132 Ill.App.2d 234, 237, 269 N.E.2d 337, 339 (2<sup>nd</sup> Dist. 1971). See also, *City of East St. Louis v. Touchette*, 14 Ill.2d 243, 247, 150 N.E.2d 178, 181 (1958), where the Illinois Supreme Court noted the trial court had properly taken judicial notice of a defendant city's petition for incorporation "previously filed in the court."

Second, the Commission stated on page 99 of its Final Order with reference to the MCPO route, "Several affected communities and stakeholders have not intervened," and used this fact to conclude that the "lack of opposition to the MZK Route at least marginally favors its adoption." The Commission therefore noted who was and who was not part of the groups opposing the MCPO route, and that could only have been done by reference to PDM's and other parties' petitions to intervene. On rehearing, now that over 500 parties from communities all along the MCPO route have intervened as part of the PDM coalition, the Commission should fairly again reference the parties' petitions.

Third, most of the intervenors are identified by where they are located or their individual