

ILLINOIS COMMERCE COMMISSION

DOCKET NO. 06-0706

SURREBUTTAL TESTIMONY

OF

ROGER CRUSE

SUBMITTED ON BEHALF

OF

**ILLINOIS POWER COMPANY d/b/a AmerenIP
and
AMEREN ILLINOIS TRANSMISSION COMPANY**

September 17, 2007

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4 **I. WITNESS IDENTIFICATION**

5 **Q1. Please state your name and business address.**

6 **A.** My name is Roger Cruse. My business address is 370 South Main Street in Decatur,
7 Illinois, 62523-1479.

8 **Q2. Are you the same Roger Cruse who provided Direct and Rebuttal Testimony in this**
9 **proceeding?**

10 **A.** Yes.

11 **Q3. What is the purpose of your surrebuttal testimony?**

12 **A.** The purpose of my surrebuttal testimony is to respond the concerns raised by interveners
13 in their rebuttal testimonies regarding environmental and cultural issues that allegedly
14 may impact the construction of AmerenIP's North LaSalle/Wedron/Ottawa proposed 138
15 kV transmission line.

16 **II. RESPONSE TO IL 71 RESISTORS**

17 **Q4. Dr. Paul Mixon contends there is little difference between the IL 71 Resistors' route**
18 **and the Ameren route from the perspective of impacts on bat habitat, wetlands, and**
19 **forest fragmentation. Please comment on his position.**

20 **A.** I disagree with Dr. Mixon's conclusions in regard to impacts on potential Indiana bat
21 habitat, wetlands, and forest fragmentation. It is clear the IL 71 Resistors' route will
22 require considerably more forest clearing along the Fox River leading to increased forest
23 fragmentation, including more forest clearing within areas that are potentially suitable
24 Indiana bat habitat. Further, the IL 71 Resistors' route has the potential to impact more

25 acreage of wetlands within their proposed right-of-way. I provide detailed explanations
26 for these opinions in my responses –below.

27 **Q5. Dr. Mixon states on page 27 of his Rebuttal Testimony you believe there will be**
28 **greater potential impact on Indiana bat habitat because there are more trees near**
29 **the IL 71 Resistors' route than there are near Ameren's proposed Green Route,**
30 **because of your assumption that the presence of trees equates with the presence of**
31 **suitable Indiana bat habitat. Do you agree?**

32 **A.** No, I do not agree. As Dr. Mixon pointed out, the use of photographic interpretation can
33 be used to identify the first two parameters of the habitat requirements. While NRC did
34 not complete field habitat assessments within potential habitat areas of the IL 71
35 Resistors' route, such field assessments would most likely provide the same results as the
36 aerial assessments, especially along the riparian forest of the Fox River where most of the
37 potential habitat has been identified.

38 **Q6. Dr. Mixon states on page 28 of his Rebuttal Testimony that AmerenIP Exhibit 11.10**
39 **indicates in the vicinity of the Ottawa-Wedron area, no 'potentially suitable'**
40 **Indiana bat habitat has been identified along either the proposed Green Route or**
41 **the IL 71 Resistors' route. Is this correct?**

42 **A.** Yes, this is correct. AmerenIP Exhibit 11.10 is the IL GAP Analysis for the Indiana Bat.
43 The IL GAP Analysis predicts potential Indiana bat habitat based on a computer
44 generated model. While the IL GAP Analysis is a useful tool for identifying potential
45 Indiana bat habitat, it is not the only method. The presence and/or absence of predicted
46 Indiana bat habitat may be determined using other acceptable methodologies, and
47 Ameren has made such determinations using aerial and field assessments.

48 **Q7. Dr. Mixon also asserts Ms. Tweddale of INHS stated through e-mail that the only**
49 **known location for the Indiana bat in LaSalle County is the Blackball Mine. Are**
50 **you aware of this situation?**

51 **A.** I am aware of the fact there is limited documentation or known records of Indiana bats
52 within LaSalle County, and the only known records relate to the Blackball Mine. This
53 was also identified within the Biological Assessment completed by NRC and was one of
54 many considerations in reaching the conclusion that Ameren's primary route is not likely
55 to affect the Indiana bat. Furthermore, the USFWS takes the position that all of Illinois is
56 considered within the range of the Indiana bat and where suitable habitat is identified,
57 Indiana bats are assumed to be present. This is an issue Ameren has been required to
58 address based on consultation with USFWS. The Indiana bat is a federally endangered
59 species and the USFWS is the lead agency in determining whether or not adverse impacts
60 on the Indiana bat will result from this project.

61 **Q8. Dr. Mixon implies that there should be no concern about Indiana bats because their**
62 **known locations are primarily the Blackball Mine and Starved Rock Park. Is it**
63 **your position that concern should only be limited to areas with actual Indiana bats?**

64 **A.** No. Ameren's review of the primary and alternate routes focused on identifying
65 *potentially suitable* Indiana bat habitat. As I discussed above, Ameren has been required
66 to address the issue of impacts on suitable Indiana bat habitat based on consultation with
67 USFWS under the requirements of Section 7 of the Endangered Species Act. The
68 USFWS is the lead agency in determining whether or not the project is likely to affect the
69 Indiana bat. The Blackball Mine and Starved Rock State Park are close to the project
70 area, and all of LaSalle County is within the known range of the Indiana bat. For this

71 reason the USFWS determined the project "may affect" the Indiana bat and requested that
72 Ameren conduct a Biological Assessment. Known documented records within the
73 project area indicating the presence of the bat are only one of many factors that were used
74 by Ameren in reaching the conclusions in the Biological Assessment. Therefore, it is not
75 reasonable for Dr. Mixon to base his conclusion solely on the lack of documented
76 records.

77 **Q9. Dr. Mixon states on page 31 of his Rebuttal Testimony that while an 'aerial**
78 **photographic review' may allow for a determination regarding two U.S. Fish and**
79 **Wildlife's bat habitat characteristics, the only way to determine if the final two**
80 **characteristics exist would be to visit the project area, examine the tree species, and**
81 **the presence and percentage of peeling or loose bark on potential roost trees. How**
82 **do you respond?**

83 **A.** I agree with Dr. Mixon that the site would require a field inspection to determine these
84 characteristics. While potentially suitable Indiana bat habitat was identified with aerial
85 photographic interpretation, consideration of the forest composition was also
86 incorporated into the determination.

87 **Q10. Please comment on Dr. Mixon's assertions (pp. 31-32) that NRC did not undertake**
88 **any field assessments for Indiana bat habitat nor prepare a Biological Assessment**
89 **regarding the IL 71 Resistors' route or any other alternative route for the Ottawa-**
90 **Wedron line.**

91 **A.** Ameren has not undertaken complete field assessments for Indiana bat habitat or
92 prepared a Biological Assessment regarding the IL 71 Resistors' route or any other
93 alternative route for the entire project. However, Ameren has completed a comparable

94 assessment between the two routes utilizing acceptable methodologies. It is important to
95 note, as explained above, that the methods we used to compare the two routes were
96 appropriate. A Biological Assessment was completed for Ameren's primary route to
97 solely to determine whether or not the project would adversely impact a federally listed
98 species

99 **Q11. Dr. Mixon concludes (page 29) that Ameren used a superficial 'aerial photographic**
100 **review' to presume the presence of potentially suitable Indiana bat habitat along the**
101 **IL 71 Resistors' route, but an entirely different and more searching analysis to**
102 **determine less Indiana bat habitat impacts along the Green Route. He concludes**
103 **that by using two different standards Ameren has overstated the impact of the IL 71**
104 **Resistors' route. Do you agree?**

105 **A.** No, I do not agree that Ameren has overstated the potential impact of the IL 71 Resistor's
106 route. Ameren did not use a superficial process to identify potentially suitable Indiana
107 bat habitat. Additionally, while a field assessment of habitat was completed within
108 Ameren's primary route, I do not consider the processes entirely different. Initial
109 determinations of potential Indiana bat habitat within Ameren's primary route were
110 completed using the same methodology (i.e. aerial photographic interpretation and
111 general knowledge of project area) as completed with the IL 71 Resistors' route. Thus, it
112 is reasonable to expect that a field survey of the IL 71 Resistors' route would provide
113 similar results to the aerial assessment.

114 **Q12. Dr. Mixon states on page 33 of his Rebuttal Testimony that "in my opinion there**
115 **would be no substantive difference between the IL 71 Resistors' route and Green**
116 **Route from the perspective of impacts on Indiana bats." Is this correct?**

117 A. No, I disagree with Dr. Mixon. Ameren has provided clear evidence that the IL 71
118 Resistors' route will require more woodland clearing through potentially suitable Indiana
119 bat habitat. Therefore, there is a substantial difference between these two routes from the
120 perspective of potential impacts on Indiana bat habitat.

121 **Q13. Dr. Mixon also indicated you have "overstated" the impact of the IL 71 Resistors'**
122 **route in regards to potential Indiana bat habitat clearing because the acreage of**
123 **potentially suitable habitat within the IL 71 Resistors' route was based on clearing a**
124 **100-foot right-of-way "when in fact, the total width will be 50 feet along this section**
125 **of the route." Dr. Mixon further claims "by using the proper right-of-way width,**
126 **the potential acreage impact for the IL 71 Resistors' route should be adjusted**
127 **downwards to at most 20 acres, and possibly much lower." Is this a correct**
128 **analogy?**

129 A. Dr. Mixon is correct that the acreage of potential Indiana bat habitat within the IL 71
130 Resistors' proposed route was derived from a 100-foot wide right-of-way. While the
131 actual right-of-way may not require 100 feet of clearing along the entire route, the
132 potential impacts may be slightly conservative but are not overstated. In comparison, the
133 acreage of suitable Indiana bat habitat within Ameren's primary route was also calculated
134 based on a 100-foot right-of-way when the right-of-way may be much less along a
135 significant portion of the route. However, in order to address Dr. Mixon's concern, the
136 acreage of potentially suitable habitat within the IL 71 Resistors' route and Ameren's
137 primary route was recalculated based on a 50-foot right-of-way where the routes parallel
138 an existing railroad or roadway corridor. A 100-foot right-of-way was maintained where
139 the routes do not parallel an existing corridor. My position remains the same in that the

140 IL 71 Resistors' route has the potential to impact more Indiana bat habitat and that the
141 acreages identified in my rebuttal testimony were not overstated.

142 **Q14. Dr. Mixon (p. 34) also expresses concern that Ameren did not undertake a field**
143 **delineation of wetlands for the IL 71 Resistors' route. Can you comment on his**
144 **concern?**

145 **A.** Ameren did not complete field wetland delineations within the IL 71 Resistors' route.
146 However, under my direction NRC identified wetlands based on review of aerial
147 photographs utilizing stereo pairs, topographic maps, National Wetland Inventory maps,
148 and general knowledge of project area based on visual inspections from public right-of-
149 ways where possible. Low lying areas possessing wetland signatures such as evidence of
150 ponding, flooding, impacts of prolonged saturation (e.g. crop damage), or drainage
151 patterns were identified as wetland on aerial photographs. The same method was applied
152 to Ameren's primary route prior to completion of field wetland delineations. I have no
153 reason to believe the methods used to compare wetland acreage between routes raise a
154 valid concern. I would expect a field delineation of wetlands on the IL 71 Resistors'
155 route would produce similar findings as the aerial assessment, as was the case with
156 Ameren's primary route.

157 **Q15. Dr. Mixon also states the acreage of wetlands within the IL 71 Resistors' route is**
158 **flawed because "Mr. Cruse assumes that the right-of-way for the IL 71 Resistors**
159 **route is 100 feet wide when it will in fact have a 50 foot right-of-way....When the**
160 **proper right-of-way is taken into account the IL 71 Resistors route may impact at**
161 **most only 2.4 acres of wetland (and possibly even less), not 4.8 acres as claimed by**
162 **Mr. Cruse." How do you respond?**

163 A. The analysis was not flawed. Wetland acreages for both Ameren's primary route and IL
164 71 Resistors' route were both based on 100-foot right-of-ways, when in fact both routes
165 could have narrower right-of-ways. However, in order to address Dr. Mixon's concern,
166 the total wetland acreages were recalculated based on a 50-foot right-of-way for both
167 routes in areas where the route is adjacent to an existing railroad or roadway corridor. A
168 100-foot right-of-way was maintained in areas that do not parallel an existing corridor.
169 My position therefore remains the same, that the IL 71 Resistors' route has the potential
170 to impact more wetlands than Ameren's primary route.

171 **Q16. Dr. Mixon states on page 34 of his Rebuttal Testimony that "proposed Green Route**
172 **would cross 14 waterways and pass over 4 wetlands, while the Alternate #2 route**
173 **(which is very similar to the IL 71 Resistors' route) would cross only 8 waterways**
174 **and 1 wetland. As a result, ... it is my opinion the IL 71 Resistors' route also has the**
175 **potential to impact less wetlands than Ameren's proposed route." Do you agree?**

176 A. Dr. Mixon is responding to workpapers that were an early analysis of Ameren's primary
177 and alternative routes. A more detailed refinement of wetland boundaries and a more
178 detailed analysis of wetland acreage utilizing GIS technology have been completed since
179 this initial environmental summary. Therefore, I disagree with Dr. Mixon's conclusion.

180 **Q17. Dr. Mixon states on pages 35-36 of his Rebuttal Testimony "With reference to the**
181 **Ottawa-Wedron Alternative route #2 (the Red route, which is very similar to the IL**
182 **71 Resistors' route), Emmons Workpapers #13 states that: 'No state natural areas,**
183 **known or endangered species, or cultural or historic resources are located within**
184 **the proposed route.' He therefore believes the entire area is already 'highly**

185 **disturbed,' including its habitat and waterways from agricultural, industrial,**
186 **commercial and other uses." How do you respond?**

187 **A.** I agree from a landscape perspective the project area as a whole can be considered
188 "disturbed", insofar as it includes impacts on its habitats and waterways from agricultural,
189 industrial, commercial and other uses. However, Dr. Mixon has taken this statement out
190 of context since it is in reference to the entire project area. Dr. Mixon overlooked the
191 summary statement in this workpaper that addressed Alternate route #2 (i.e. IL 71
192 Resisters' route). This is the same area that Ameren has identified as susceptible to forest
193 fragmentation within potentially suitable Indiana bat habitat along the IL 71 Resisters'
194 route.

195 **Q18. Please comment on Dr. Mixon's testimony (p. 35) regarding the letters from the**
196 **IDNR.**

197 **A.** The letters from IDNR speak for themselves. Dr. Mixon's summary of the letters was an
198 apparent attempt to disqualify the significance of their content. Dr. Mixon states the only
199 position taken by IDNR in its letter is "the IL 71 Resist alternative appears likely that it
200 would further fragment a significant portion of the western shore line of the Fox River."
201 Dr Mixon further states "it [the IDNR letter] goes on to state that it objects to any
202 alternative alignment likely to increase fragmentation of remaining wooded areas in the
203 vicinity or encroach upon designated public resources and areas." Dr. Mixon indicates
204 that this portion of the letter is directed toward PROTED 80's route. However, if Dr.
205 Mixon would have completed the previously quoted sentence within the letter it states
206 that "this includes ...the Fox River Illinois Natural Area and its riparian corridor." The
207 IL 71 Resisters' route is located within the riparian corridor of the Fox River Illinois

208 Natural Area for a considerable distance, and so the letter clearly expresses opposition to
209 the IL 71 Resistor's route's impact on wooded areas.

210 **Q19. Dr. Mixon quotes from a portion of the minutes taken at a meeting with Ameren,**
211 **IDNR, and USFWS regarding a statement made by Mr. Joe Kath (IDNR) in which**
212 **he "was more concerned with the impacts that may result from further**
213 **fragmentation of the [Little Vermilion River] and was not in favor of the current**
214 **primary route because of this impact." Is this the primary route that Ameren is**
215 **proposing now?**

216 **A.** No, this is not the primary route Ameren is currently proposing. This particular concern
217 raised by Mr. Kath was in reference to a route segment Ameren was evaluating that
218 crossed the Little Vermilion River south of I-80 through a heavily wooded area, which is
219 illustrated in Ameren Exhibit 9.6 as a dashed green line labeled 3020. Ameren has
220 satisfactorily addressed this IDNR concern with its current routing.

221 **Q20. Dr. Mixon also quotes another statement made by Mr. Kath as reported in the**
222 **same meeting minutes. Mr. Kath "stated with certainty that this project [i.e., the**
223 **entire LaSalle-Ottawa-Wedron project] regardless of which of the alternative routes**
224 **is chosen there will not be any impacts on Indiana bat or their habitat." Did Dr.**
225 **Mixon interpret this statement correctly, particularly in regards to Dr. Mixon's own**
226 **insertion into the statement "i.e., the entire LaSalle-Ottawa-Wedron project"?**

227 **A.** No, Dr. Mixon misinterpreted Mr. Kath's statement and made an insertion into this
228 statement that misrepresents what the discussion was referencing. The primary focus of
229 this meeting was to develop a route from the North LaSalle area to the I-80/I-39
230 interchange (the west portion of the North LaSalle-Wedron route) that would avoid and

231 minimize environmental impacts. At that time, Ameren was evaluating several potential
232 route segments to achieve this connection. These route segments are identified on
233 Ameren Exhibit 9.6. Due to the initial concerns raised by USFWS in regards to the
234 existence of a known hibernaculum at Blackball Mine south of I-80, and IDNR concerns
235 in regards to Mitchell's Grove Nature Preserve north of I-80, Ameren requested a joint
236 meeting between these agencies to discuss the various route segments and environmental
237 implications. When Mr. Kath made reference to the various alternate routes he was
238 referring to the various alternate route segments identified on Ameren Exhibit 9.6 for the
239 North LaSalle to I-80/I-39 portion of the project. The Ottawa-Wedron routes were not a
240 topic of this meeting. Ameren developed the segment of its current primary route from
241 North LaSalle to the I-80/I-39 interchange which alleviated the IDNR concerns regarding
242 forest fragmentation and proximity to nature preserves. In addition, this route segment
243 avoided high quality, suitable Indiana bat habitat that was identified in areas adjacent to
244 the Little Vermilion River which also alleviated the initial concerns the USFWS
245 expressed in regards to proximity to the Blackball Mine.

246 **III. RESPONSE TO PROTED 80**

247 **Q21. What is your general response to Mr. Dee Bennett's testimony regarding the**
248 **environmental impacts of PROTED 80's and Ameren's routes?**

249 **A.** My position remains the same that, based on environmental impacts, Ameren's proposed
250 primary route is superior. Mr. Bennett has offered no meaningful evidence to support his
251 position.

252 **Q22. Mr. Bennett states on page 21 of his Rebuttal Testimony that PROTED 80's**
253 **proposed new routing for its Alt 1 route "would not only take the route out of the**

254 **technical jurisdiction of the Maze Woods Nature Preserve, it would also minimize**
255 **any interference or fragmentation of the Indiana bat habitat or other habitat that**
256 **relies on contiguous forest." Do you agree?**

257 **A.** I agree that by taking the route out of the Maze Woods Land and Water Reserve,
258 fragmentation of potential Indiana bat habitat and impacts on the Reserve would be
259 reduced. However, even taking the route out of Maze Woods would not make it
260 preferable to Ameren's primary route in terms of environmental impacts, specifically in
261 regards to wetlands impact further east where the line would cross Buck Creek.

262 **Q23. Please comment on Mr. Bennett's testimony (p. 20) regarding the Biological**
263 **Assessment's findings.**

264 **A.** I agree with Mr. Bennett's summary of the findings reached within the Biological
265 Assessment for Ameren's primary route. However, the Biological Assessment was
266 completed in order to determine whether or not the project will have an adverse affect on
267 federally listed species per the requirements of Section 7 of the Endangered Species Act.
268 While I agree similar conclusions could theoretically be reached if a Biological
269 Assessment were completed for the PROTED 80 Alt 1, these conclusions—should they
270 be reached—would not cover all potential environmental impacts. This is because the
271 Biological Assessment has a limited application assessing the effects on federally
272 protected species and, therefore, does not support the conclusion that the routes are equal
273 when considering all environmental impacts. Instead, Ameren would expect the
274 Commission to consider the record as a whole when weighing the merits and demerits of
275 any route, including in total the environmental issues or impacts.

276 **Q24. Mr. Bennett states on page 23 of his Rebuttal Testimony that "A field survey for**
277 **PROTED 80 Alt 1 would likely reduce the actual wetland acreage to something very**
278 **similar to Ameren's primary route." Do you agree?**

279 **A.** I disagree with Mr. Bennett's assumption that wetland acreage identified by aerial
280 photographic interpretation would be reduced from 15 acres to an acreage similar to
281 Ameren's primary route (2.8 acres) based on field verified wetland delineations. Mr.
282 Bennett attributes this assumption based on the claim that the acreage of wetlands with
283 Ameren's primary route identified by aerial photographic interpretation was reduced
284 substantially following a field evaluation. This is simply not true. While the wetland
285 boundaries were further refined based on the field evaluations, the acreage of wetland
286 within the right-of-way was not substantially reduced. Mr. Bennett makes the
287 assumption that wetland acreage was substantially reduced following field surveys based
288 on my response to PROTED 80 Data Request 5-17 (c) which is referenced and included
289 in his rebuttal testimony as PROTED 80 Schedule 2.11. This exhibit is a summary table
290 that lists each wetland and the characteristics of each wetland identified along Ameren's
291 primary route from North LaSalle to Wedron as a result of field evaluations, aerial
292 interpretation, and assessments from public right-of-ways. Mr. Bennett apparently did
293 not understand the content of the summary table as it does not provide any reference to
294 wetlands identified from aerial photographic interpretation that were discounted based on
295 field surveys. My opinion remains the same that PROTED 80 Alt 1 has the potential to
296 impact more wetlands than Ameren's primary route. However, I would acknowledge that
297 along the Protod 80 Alt 1 route (and Ameren's primary route for that matter), the amount
298 of wetlands actually impacted by the construction of a transmission line (as opposed to

299 potentially impacted) could be reduced or eliminated by line design, pole placement, or
300 other mitigation measures.

301 **Q25. Mr. Bennett states on page 23 of his Rebuttal Testimony that responses obtained by**
302 **Ameren from IDNR and INPC were based on its misrouting of PROTED 80 Alt 1**
303 **through the northern edge of the Maze Wood Nature Preserve and, therefore, the**
304 **responses are something of a red herring. How do you respond?**

305 **A.** Mr. Bennett concedes in his rebuttal testimony that "I was not detailed enough in my
306 route descriptions and that the maps and photographs provided by PROTED 80 did not
307 provide enough detail about where along certain property lines the route would or could
308 run." If PROTED 80 Alt 1 is not routed through Maze Woods, the concerns of the IDNR
309 and INPC regarding that segment of the route would not apply.

310
311 **Q26. Mr. Bennett states on page 25 of his Rebuttal Testimony that "I think the**
312 **preservation of Indiana bat habitat favors PROTED 80 Alt 1." Do you agree?**

313 **A.** If the PROTED 80 Alt 1 route is in fact located north of Maze Woods, I would conclude
314 that both routes are equal in this regard.

315 **Q27. Mr. Bennett states on page 26 of his Rebuttal Testimony "Based on these comments**
316 **it appears that all of the attention being given to Indiana bat habitat in these**
317 **proceedings may be another red herring, since, as Ameren has been aware for some**
318 **time, it appears that there are very few Indiana bats in La Salle County and they**
319 **are limited to the winter months around the Blackball Mine area." How do you**
320 **respond?**

321 A. As I discussed above, Mr. Bennett apparently does not understand the significance of
322 Indiana bats and their associated habitat in Illinois. The USFWS, through consultation
323 with Ameren, made the determination that this project "may affect" the Indiana bat based
324 on the presence of potentially suitable habitat and the project location within the habitat
325 range of the Indiana bat. Because of these potential impacts, the USFWS subsequently
326 requested completion of a Biological Assessment. While consideration was given to the
327 lack of known records of Indiana bats in the project area, this was only one factor
328 considered when reaching the final conclusions.

329 **Q28. Mr. Bennett states on page 22 of his rebuttal testimony in reference to Buck Creek**
330 **"the existence of a distribution line demonstrates that the construction and**
331 **maintenance of a power line through this area can be accomplished to a level**
332 **acceptable to the Corps of Engineers with minimal effect on the environment." Do**
333 **you have a response to this?**

334 A. As I explained in my rebuttal testimony, Buck Creek is identified as an Illinois Natural
335 Area Inventory Site ("INAIS"). Although there is an existing distribution line, the
336 potential impacts on this waterway and large wetland complex are significantly greater
337 than any potential wetland impact along Ameren's primary route. The removal of
338 existing distribution poles and installation of steel transmission poles on foundations
339 requires the use of large, heavy equipment through the wetland, a considerable amount of
340 concrete, and multiple stream crossings over the meanders of the waterway. As part of
341 the US Army Corp of Engineers wetland permitting process, the applicant must first
342 demonstrate that impacts on wetlands have been avoided to the most practical extent
343 possible, which Ameren's proposed primary route clearly accomplishes. Additionally,

344 since this is an INAIS, by definition there may be habitat for threatened and endangered
345 species which could trigger additional regulatory constraints if such species are in fact
346 present. Based on the potential for impacts on this Illinois Natural Area Inventory Site,
347 in addition to the greater extent of wetland habitat present within the PROTED 80 Alt 1
348 route, I conclude that Ameren's route is superior in regards to avoidance of wetland
349 habitat. However, I believe that Ameren could, if necessary, obtain a permit from the US
350 Army Corp of Engineers to construct a transmission line through the Buck's Creek area
351 (and other wetland areas along the Protod 80 Alt 1 route).

352 IV. RESPONSE TO SOLVE

353 **Q29. Dr. Franklin Jasiak states on page 5 of his Rebuttal Testimony that "PROTED 80's**
354 **routes in general and its Alt 1 in particular, will impose the least impact, especially**
355 **from an environmental point of view." Do you agree?**

356 **A.** I disagree with Dr. Jasiak's opinion. From an environmental point of view Ameren's
357 proposed primary route is superior, especially in regards to wetland habitat impact. Since
358 neither route directly impacts Illinois Nature Preserve Commission designated lands and
359 both have similar impacts on potentially suitable Indiana bat habitat.

360

361 **Q30. Dr. Jasiak also asserts that Ameren overstates the likely existence of Indiana bat**
362 **populations in general, while ignoring the greater likelihood of those populations on**
363 **its primary route due to the greater proximity of its primary route to the Blackball**
364 **Caves. Do you agree?**

365 **A.** No, I disagree. Ameren did not overstate the likely existence of Indiana bat populations.
366 Ameren's discussion has revolved around impacts on suitable Indiana bat habitat as it

367 pertains to the USFWS concerns regarding Section 7 of the Endangered Species Act.
368 While proximity to Blackball Mine is a concern as it relates to fall swarming activity,
369 based on consultation with USFWS and IDNR, it was determined that swarming
370 activities occur only at the entrance to the mine. Ameren's proposed primary route is not
371 within the range of such swarming activities.

372 **Q31. In particular, Dr. Jasiak states on pages 15-16 of his Rebuttal Testimony that**
373 **"According to the Biological Assessment of NRC, on July 27, 2006 Ms. Lindh**
374 **(USFWS Rock Island Field Office), 'She indicated that the USFWS had determined**
375 **that there is a 5-mile buffer around Blackball Mine and that the presence of the**
376 **buffer would have serious implications on all of the proposed southern routes that**
377 **impact suitable habitat.'" How do you respond?**

378 **A.** Ms. Lundh did indicate there is a five-mile buffer around Blackball Mine and expressed
379 concern regarding routes impacting fall swarming habitat within this buffer. However,
380 based on further consultation with USFWS and IDNR, as also described in the Biological
381 Assessment, the consensus of these agencies was that this was an overly conservative
382 buffer since the intention of the buffer is to protect the fall swarming habitat and
383 swarming activities of the bats. Documentation of the fall swarming activities has
384 demonstrated the Indiana bats swarm only at the entrance to the mine during this period,
385 not within the full five miles. Since there are no proposed routes within the vicinity of
386 the swarming area of the bats, this is not an issue. Indeed, Dr. Jasiak admits to this
387 similarity in his rebuttal testimony (page 22 lines 435-438) by summarizing his
388 discussion with Todd Bittner (IDNR) when he states, "bats may move 100 miles from the

389 winter hibernaculum at the Blackball Mines, which could impact any or all of the
390 suggested routes..."

391 **Q32. Dr. Jasiak states on page 16 of his Rebuttal Testimony "it is still obvious that**
392 **PROTED 80's Alt 1 is the best available route to avoid the Indiana bat." Is this**
393 **correct?**

394 **A.** Assuming the PROTED 80 Alt 1 avoids Maze Woods Land & Water Reserve, the two
395 routes are essentially equal in regards to avoidance of the Indiana bat, since both routes
396 contain similar amounts of potentially suitable habitat. Of course, there are other
397 environmental factors that favor the Ameren primary route.

398 **Q33. Dr. Jasiak asserts the real concern with the Electric Utilities Co. and M&H Zinc**
399 **superfund sites is runoff and sediment exiting from the sites, which may be**
400 **disturbed by construction. Do you agree with his concern?**

401 **A.** No. As I discuss in my rebuttal testimony, Ameren has discussed the location of the
402 primary route with respect to the M&H Zinc Co. Superfund site with the IEPA and
403 USEPA. Neither agency takes the position the construction will impact the remediation
404 process or pose a public health concern. In accordance with USEPA recommendations,
405 Ameren will practice due diligence in the project area closest to this Superfund site in the
406 same manner that is practiced in other potentially contaminated areas encountered by
407 Ameren. These agencies do not believe that construction of the primary route will impact
408 the ongoing remediation of these sites or pose a public health concern. Ameren will
409 continue coordination with both the IEPA and USEPA regarding both these Superfund
410 sites.

411 **Q34. Please describe what is meant by "practicing due diligence" with regard to these**
412 **sites.**

413 **A.** In its discussions with the IEPA and USEPA regarding the two sites, Ameren committed
414 to practicing due diligence in its construction methods by conducting analytical testing in
415 the vicinity of these two sites. This testing will characterize the soils to determine
416 whether the need exists for conducting remediation of any contamination, and it will
417 ascertain if any protective measures related to employee safety need to be taken. In
418 addition, Ameren will be taking steps to minimize construction stormwater runoff from
419 entering any stream or body of water in accordance with approved Illinois EPA
420 standards. This will be accomplished by preparing a Stormwater Pollution Prevention
421 Plan that describes specific engineering practices for minimizing erosion. Some of these
422 erosion controls consist of installing physical barriers to capture soil runoff, inspecting
423 the construction area on a weekly basis and after a storm event of ½ inch or more to
424 ensure adequate steps are being taken to reduce sediment runoff, and reseeding any
425 disturbed area after construction has been completed.

426 **Q35. Dr. Jasiak also recommends that Ameren be ordered to do an environmental impact**
427 **study of the area near these Superfund sites. Is this necessary?**

428 **A.** No. As stated above, Ameren has consulted with USEPA and IEPA about these sites and
429 neither agency has expressed a concern. Ameren will continue to work with both the
430 IEPA and USEPA regarding these sites to avoid disturbance of any identified
431 contamination that may have resulted from the operation of either of these companies.

432 **Q36. In his testimony about the potential for Ameren's primary route disturbing known**
433 **contamination from either of the Superfund sites near LaSalle, Dr. Jasiak makes**

434 reference to "the unnamed stream which passes through the proposed route, is the
435 source of some of the problems which affect the river, causing it to be on the 303D
436 list." How do you respond?

437 A. While Ameren does not dispute this point, it becomes a moot issue because the
438 construction of the proposed route will occur on a bluff area above this stream where an
439 abandoned railroad right-of-way exists.

440 Q37. With regard to Dr. Jasiak's testimony on page 23, has Ameren acknowledged the
441 community's concern over EMFs?

442 A. The implication from Dr. Jasiak's testimony is that Ameren placated one community's
443 concern about EMF by imposing that concern on another when it changed the routing of
444 its primary line. However, Ameren's decision to move to its current primary route is not
445 an "acknowledgement" of concern over EMFs. There were many factors taken into
446 consideration in reaching the decision that a different route would be more satisfactory.
447 Some of the factors that were evaluated include environmental concerns, verbal and
448 written recommendations from Ameren customers attending the four, open workshops,
449 engineering aspects of the construction, historic property ownership and farmland
450 impacts—to name a few. As indicated in earlier rebuttal testimony "Ameren avoids,
451 wherever possible, occupied structures along the proposed routing of its transmission
452 lines." One of the factors that influenced the decision to change the LaSalle to Wedron
453 primary route was the determination that the number of occupied structures within 200
454 feet of the centerline would be reduced from 44 to 15 (refer to AmerenIP Exhibit 3.3).
455 Additionally, this change would eliminate the presence of all three of the elementary
456 schools located along the original primary route.

457 **V. RESPONSE TO LASALLE-PERU SCHOOL DISTRICT**

458 **Q38. The witnesses for the LaSalle-Peru School District assert there is a concern about**
459 **EMFs from Ameren's transmission lines. Are these concerns justified?**

460 **A.** No. As I state in my rebuttal testimony, based on scientific research that has been
461 conducted for over 30 years, there is no sufficient, reliable evidence to conclude that
462 long-term exposures to electric and magnetic fields at levels found in communities or
463 occupational environments are adverse to human health or cause any disease. The
464 general consensus of the scientific community is that the evidence for any harmful effect
465 related to EMFs is inconclusive.

466 **Q39. Dr. Craig Carter states on page 5 of his Rebuttal Testimony that "The District**
467 **believes, in light of the conclusions made by the World Health Organization in its**
468 **fact sheet (Dist. No. 120 Exhibit 2.4), that the electromagnetic field (EMF) emissions**
469 **likely to radiate from a new transmission line, might increase the potential for**
470 **adverse health conditions among students, visitors, and staff on the District's**
471 **property." Does the World Health Organization fact sheet he references support**
472 **his conclusion?**

473 **A.** No. In fact, what the WHO fact sheet supports are the opinions I expressed in my
474 rebuttal testimony (AmerenIP Exhibit 11.0). For example, in the section titled, "Potential
475 Long-term Effects," the WHO commented that the International Agency for Research on
476 Cancer (IARC) classified EMF magnetic fields as "Possibly Carcinogenic to Humans"
477 based on pooled analyses of epidemiological studies showing an association with
478 childhood leukemia. However, the fact sheet concludes: "given the weakness of the
479 evidence for a link between exposure to ELF magnetic fields and childhood leukemia, the

480 benefits of exposure reduction on health are unclear." This association, moreover, as
481 pointed out in my rebuttal testimony, does not relate to a causal effect and only means
482 that the result tends to occur in the presence of, or in conjunction with, some factor.
483 Further, as the WHO fact sheet goes on to state, this classification is based on *limited*
484 *evidence of carcinogenicity in humans and less than sufficient evidence for*
485 *carcinogenicity in experimental animals*. Thus, it becomes clear that "limited evidence"
486 in determining a cause-and-effect relationship lacks sound support from other scientific
487 disciplines (i.e. physics, chemistry and biology) to reach a definitive conclusion. As a
488 supplement to this point the WHO also indicates that "...there are no accepted
489 biophysical mechanisms that would suggest that low-level exposures are involved in
490 cancer development. Thus, if there were any effects from exposures to these low-level
491 fields, it would have to be through a biological mechanism that is as yet unknown.
492 Additionally, animal studies have been largely negative. Thus, on balance, the evidence
493 related to childhood leukemia is not strong enough to be considered causal." Not only
494 has limited scientific evidence been found to link any adverse health effect to EMF
495 magnetic fields, but as the WHO further states, "...if ELF fields actually do increase the
496 risk of the disease, when considered in a global context, the impact on public health of
497 ELF EMF exposure would be limited." As a result, the WHO fact sheet does not support
498 Dr. Carter's position.

499 **Q40. Does this conclude your Surrebuttal Testimony?**

500 **A.** Yes.