BEFORE THE ILLINOIS COMMERCE COMMISSION
STATE OF ILLINOIS

AMEREN TRANSMISSION COMPANY OF ILLINOIS	)	
Petition for a Certificate of Public Convenience and Necessity, pursuant To Section 8-406.1 of the Illinois Public Utilities Act, and an Order pursuant to Section 8-503 of the Public Utilities Act, To Construct, Operate and Maintain a New High Voltage Electric Service Line And Related Facilities in the Counties of Adams, Brown, Cass, Champaign, Christian, Clark, Coles, Edgar, Fulton, Macon, Montgomery, Morgan, Moultrie Pike, Sangamon, Schuyler, Scott, and Shelby, Illinois	)	**Docket No. 12-0598**

DIRECT TESTIMONY OF K. DOUGLAS BLODGETT

Director of River Conservation for
The Nature Conservancy, Illinois Chapter

On behalf of

THE NATURE CONSERVANCY

March 29, 2013

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I.

INTRODUCTION AND OVERVIEW

Q. Please state your name, business address and describe your position with The Nature Conservancy.

A. My name is K. Douglas Blodgett. My business address is 11304 N. Prairie Road, Lewistown, Illinois 61542, which is The Nature Conservancy's Illinois River Program Office. I serve as Director of River Conservation for the Illinois Chapter of The Nature Conservancy. One of my primary responsibilities is overseeing implementation of The Nature Conservancy's Conservation Action Plan for the Illinois River and its associated strategies for conserving the biological diversity of this large-floodplain river ecosystem. A primary strategy of that plan is

restoration and management of functional floodplain. I oversee The Nature Conservancy's model landscape-scale floodplain projects along the Illinois River -- the 1,195-acre Spunky Bottoms Project located in Brown County (also known as the "Merwin Preserve at Spunky Bottoms") and the 6,600-acre Emiquon Preserve located in Fulton County. I am also involved in The Nature Conservancy's conservation efforts on the Wabash, Cache, and Mississippi Rivers. I am part of The Nature Conservancy's Great Rivers Partnership, which facilitates sharing of science and conservation lessons learned among managers and decision makers responsible for the health of large rivers throughout the United States and around the world.

Q. What is your educational background and work history?

A. I earned B.S. and M.S. degrees in biology from Western Illinois University at Macomb, IL. Prior to joining the staff of The Nature Conservancy, I worked for the Illinois Natural History Survey from 1982 through 1998, participating in biological investigations on the Illinois and Mississippi Rivers with special interests in freshwater mussels, fishes, and exotic species. From 1989 through 1998, I was director of the Illinois Natural History Survey's Long Term Resource Monitoring Program Field Station on the Illinois River at Havana, part of the multi-state/multi-agency Upper Mississippi River Restoration Environmental Management Program (EMP). I joined The Nature Conservancy staff in 1998 as Great Rivers Area Director, and have been involved with The Nature Conservancy's large river work since that time. In that role, I oversee The Nature

Conservancy's model landscape-scale floodplain projects along the Illinois River, including the Spunky Bottoms Project.

Q. Have you previously submitted testimony to the Illinois Commerce Commission?

A. No.

Q. What is The Nature Conservancy?

A. The Nature Conservancy is a not-for-profit organization with a clear mission -- to conserve the lands and waters on which all life depends. We do that by protecting ecologically important lands and waters for nature and people.

Q. What are the interests of The Nature Conservancy in this proceeding?

A. Ameren Illinois Transmission Company ("Ameren") is seeking permission to route an electric transmission line across the State of Illinois and has proposed a "Primary Route" and an "Alternate Route" for the line. As discussed in further detail below, Ameren's routes cause various serious concerns regarding ecological impacts. While The Nature Conservancy is interested in preserving and protecting natural habitat on the entire length of the routes proposed by Ameren, the Meredosia to Ipava portion of Ameren's proposed routes would have a particular impact on lands and waters with extraordinarily high conservation value. Accordingly, The Nature Conservancy has focused its intervention efforts on this segment.

Most significantly, Ameren's proposed Primary Route intersects land owned in fee by The Nature Conservancy. The land makes up the Spunky Bottoms Preserve, which is part of the Spunky Bottoms Complex -- over 2,100 acres owned and managed collaboratively by the Illinois Department of Natural Resources (833 acres) and The Nature Conservancy (1,195 acres). The Nature Conservancy's Spunky Bottoms Preserve consists of a mosaic of restored floodplains and uplands. Ameren's Primary Route also crosses an adjacent 90-acre parcel over which The Nature Conservancy holds a conservation easement. (*See* Exhibit 1.1 for a Map of the Spunky Bottoms Preserve and adjacent lands). The Spunky Bottoms Complex is part of an 8-mile corridor of conservation lands along the Illinois River.

The Nature Conservancy has proposed an alternative route (with two variations) for the Meredosia to Ipava portion that would be preferable to either of the routes proposed by Ameren.

Q. What is the purpose of your direct testimony?

A. The purpose of my testimony is to explain the ecological importance of the Spunky Bottoms Preserve and other natural habitats that would be significantly disturbed by Ameren's proposed siting of its 345 kV electric transmission line.

Q. What other direct testimony is The Nature Conservancy presenting in this proceeding?

A. Dr. Jeff Walk, who serves as the Director of Conservation Science for The Nature Conservancy's Illinois Chapter will further explain the harm that would be caused by Ameren's proposed Primary and Alternative Routes to the natural ecology of the Spunky Bottoms Preserve and other lands and waters. Dr. Walk will also discuss the alternative route identified by The Nature Conservancy and why it would be preferable to either of the routes proposed by Ameren. Dr. Michael Patrick Ward, who is an Assistant Professor of the Department of Natural Resources & Environmental Sciences at the University of Illinois at Urbana-Champaign will discuss the detrimental impact of Ameren's proposed Primary and Alternate Routes on species of conservation concern, specifically with respect to bird species that are endangered, threatened, or otherwise of conservation concern.

II.

AMEREN'S PROPOSED PRIMARY ROUTE WOULD THREATEN RESTORED PLANT AND ANIMAL COMMUNITIES AT THE SPUNKY BOTTOMS PRESERVE

Q. Please describe the work being done by The Nature Conservancy in connection with the Spunky Bottoms Project.

A. At Spunky Bottoms, The Nature Conservancy is working with partners to restore and sustain natural ecological processes and floodplain habitats that contribute to the ecological health of the Illinois River, including the native plant and animal communities in, on and around the river.

Most of our property at Spunky Bottoms had been leveed and converted to agriculture early in the 20th century. Since restoration started in 1999, we have worked to restore a more natural hydrology, and have planted prairie and bottomland hardwood trees. While restoration to date has been quite successful, we continue efforts to control invasive species, manage hydrology, and ensure the long-term sustainability of these important habitats and ecological processes. Additional information about the Spunky Bottoms Preserve is available at:

- http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/illinois/placesweprotect/spunky-bottoms.xml;
- http://www.nature.org/ourinitiatives/habitats/riverslakes/placesweprotect/mississippi-river-priority-site-spunky-bottoms.xml; and
- http://www.mvs.usace.army.mil/pm/spunky/index.html.

Q. Why did The Nature Conservancy purchase the properties that comprise Spunky Bottoms?

A. The Nature Conservancy has a variety of goals for the Spunky Bottoms Preserve. The restoration of functional floodplain has been identified in numerous studies and planning efforts as a critical component of restoring and maintaining the ecological health of the Illinois River ecosystem (a significant part of the Upper Mississippi River System, defined by Congress as a nationally important ecosystem in the Water Resources and Development Act 1986). Examples of such studies and planning efforts include:

- Restoration of Aquatic Ecosystems: Science, Technology, and Public Policy. National Research Council, National Academic Press. Washington, D.C. 1992. 662 pp.

- Illinois River Site Conservation Plan. The Nature Conservancy. 1998. 73 pp.

- A River That Works and a Working River. Upper Mississippi River Conservation Committee. 2000. 40 pp.

- Conservation Priorities for Preserving Biodiversity in the Upper Mississippi River Basin. Weitzell et al. NatureServe and The Nature Conservancy. 2003. 90 pp.

- Restoring the Upper Mississippi River and its network of tributaries. The Nature Conservancy. 2004. 22 pp.

- Integrated Feasibility and Programmatic Environmental Impact Statement for the UMR-IWW Navigation Feasibility Study. US Army Corps of Engineers. 2004. 606 pp.
- Illinois River Basin Restoration Comprehensive Plan with Integrated Environmental Assessment. Main Report, Public Review Draft. US Army Corps of Engineers. February 2006. 452 pp.

At Spunky Bottoms, The Nature Conservancy is developing and implementing techniques for restoring and maintaining the important natural ecological processes and habitats that support native plants and animals on the Preserve and in, on and around the river. Since restoration began in 1999, 238 bird species have been documented at the Spunky Bottoms Preserve, including many rare species. Approximately 20 threatened and endangered plant and animal species have been identified there. Additionally, the Spunky Bottoms Preserve is being used as a model to guide the proper restoration and management of other floodplain areas.

Q. What other organizations have been involved with the Spunky Bottoms Preserve?

A. The Spunky Bottoms Preserve has attracted active participation from many partners including the US Army Corps of Engineers, Natural Resources Conservation Service (US Department of Agriculture), Illinois Department of Natural Resources, Illinois Natural History Survey, National Fish and Wildlife Foundation, North American Wetlands Conservation Council, numerous colleges and universities, other not-for-profit conservation organizations, and the public. In addition to supporting an amazing abundance and diversity of native fish and wildlife species (aquatic and terrestrial and resident as well as migratory), the Spunky Bottoms Preserve has become a living laboratory for developing floodplain restoration techniques and training scientists.

Q. What is the importance of floodplain restoration to the Illinois River ecosystem?

A. Floodplain restorations are extremely important both locally and systemically. The natural floodplain of the Illinois River (i.e. before the levees were constructed) afforded numerous benefits to nature and people, including providing habitat for an abundance and diversity of native plants and animals (terrestrial and aquatic, resident and migratory); processing/cycling nutrients and sediment and breaking down pollutants, thereby improving water quality; contributing to a more natural river hydrology, including reduced flood damages; sequestering carbon and mediating climate change; and providing opportunities for education, recreation and compatible economic development.

Almost half of the Illinois River's natural floodplain was leveed and converted to agriculture a century ago, nearly eliminating most of the aforementioned benefits on those lands. And since then, remaining floodplains along the Illinois River have been severely degraded by unnatural hydrology; pollution and poor water quality, including excessive sediment loads; and invasive species. As a result, high-quality functional (naturally working) floodplain habitats that provide those services are now in short supply and are badly needed. The overall ecology of the Illinois River, including those natural plant and animal communities it supports, has declined. Because of land ownership patterns, opportunities for restoring and sustaining functional floodplain are very limited.

The Spunky Bottoms Preserve is one of only a handful of important floodplain restoration sites where land ownership allows the restoration and maintenance of functional floodplain wetlands along the Illinois River.

Q. What work has gone into restoring the Spunky Bottoms Preserve and preserving its conservation value?

A. After a planning process that included a variety of partner organizations, restoration began in 1999. Initial efforts included seeding native prairie, planting bottomland hardwood trees, and restoring a more natural hydrology. Since the initial restoration, stewardship activities have focused on managing invasive plant species. These efforts have been extremely successful both in improving the natural habitat of the immediate area and providing a model for floodplain restoration.

Q. If the proposed transmission line is constructed on the Primary Route, what effect will the construction have on the Spunky Bottoms Preserve?

A. Heavy equipment needed for construction of the power line and associated activities would directly and negatively impact restored natural habitats at Spunky Bottoms, stressing and destroying native plants, both by design and as an unintended by-product of the construction. Stresses to the natural plant communities likely would contribute to invasions by undesirable plant species, thereby requiring additional monitoring and additional remedial stewardship to limit this secondary wave of damage. If established in the footprint of the construction, invasive plants could threaten restored natural communities well beyond the power lines. In addition, construction activities likely would disturb the normal activities of many animal species, potentially leading to disruptions of their life cycles, abandonment of the immediate construction area (and potentially the entire Spunky Bottoms Preserve), and reduced fitness and even unnatural mortalities. In short, construction of Ameren proposed Primary Route would have significant immediate negative ecological impacts and likely would undermine the core of the Spunky Bottoms restoration effort.

Q. What effect would the existence of the power line on the Primary Route have?

A. In the long-term, the presence of the transmission line almost certainly would transform the habitat in ways that undermine the floodplain restoration at Spunky

Bottom. Both the physical presence of the power line and the habitat fragmentation that results will alter and/or disrupt some animals' behaviors and contribute to decreased fitness and even unnatural mortality. As discussed above, habitat fragmentation results in increased invasive plant species that are very difficult to control. The plant species present will greatly influence the animal species in their habitat selection. Although the footprint of the line and associated easement may appear small, the effects of the line once constructed on the preserve go well beyond the footprint.

Q. If the proposed transmission line is constructed on the Primary Route, what effect will the ongoing maintenance have on the Spunky Bottoms Preserve?

A. Access for ongoing maintenance would disrupt normal activities of many animal species, again with the potential of disrupting life cycles, causing abandonment of the area and potentially the Preserve, and contributing directly or indirectly to decreased fitness and even unnatural mortalities. Control of vegetation under the lines would likely alter natural plant communities. Such alterations could promote invasive species and could threaten native plant and animal communities in the footprint, throughout the Spunky Bottoms Preserve and beyond.

Further, the presence of a high voltage power line running across the Spunky Bottoms Preserve -- and the periodic maintenance that goes along with that -- would have a highly detrimental effect on the natural beauty and tranquility that exists at Spunky Bottoms. Currently, in addition to being a property of high ecological value as a home for numerous important animals and plants, the

Spunky Bottoms Preserve offers a highly valued setting for limited human activity, such as canoeing and kayaking, fishing, bird watching, and hiking. See, for example,

- http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/illinois/placesweprotect/spunky-bottoms.xml; and
- http://www.nature.org/ourinitiatives/habitats/riverslakes/placesweprotect/mississippi-river-priority-site-spunky-bottoms.xml.

The construction, existence, and ongoing maintenance associated with a high voltage transmission line would be detrimental to these uses.

III.

AMEREN'S PROPOSED PRIMARY ROUTE WOULD FRAGMENT BLUFF AND UPLAND HABITATS IMMEDIATELY ADJACENT TO THE SPUNKY BOTTOMS PRESERVE

Q. Besides the Spunky Bottom Preserve land, are there other lands affected by Ameren's Primary Route in which The Nature Conservancy has a direct interest?

A. Yes. The Nature Conservancy holds a conservation easement over about 90 acres of bluff and upland habitat immediately adjacent to the Spunky Bottoms Preserve. The current owners have reserved a life estate interest in the property, but have conveyed the remainder interest to The Nature Conservancy, which means that at their passing the property will become part of the Spunky Bottoms Preserve owned by The Nature Conservancy.

Q. What is a conservation easement?

A. A conservation easement is a nonpossessory interest in land in which the holder (in this case, The Nature Conservancy) obtains the right to enforce certain restrictions on the use of the land – restrictions that are intended to protect identified conservation values. The conservation value of these particular 90 acres is stated as follows in the easement:

> [T]he Protected Property consists of a series of remnant glacial till hill prairies, limestone cliff plant and animal communities, and approximately 60 acres of grade B to C oak-hickory woodlands. Ten county record reptile and amphibian species have been identified occupying the adjacent Spunky Bottoms Preserve. Many of these species depend on limestone cliff outcroppings as winter hibernaria habitat. The wooded bluff line also serves as migration corridor for such species as red-shouldered hawk, scarlet tanager, and northern parula, palm, yellow-rumped, hooded and Kentucky warblers.

The conservation easement prohibits structures (including utility poles, towers, conduits or lines), new roads, any nonagricultural commercial use, changes in topography, removal of vegetation, subdivision, or any other use of the property detrimental to water quality.

Q. Why did The Nature Conservancy acquire the conservation easements that are affected by Ameren's Primary Route?

A. The Nature Conservancy acquired the subject conservation easement to help insure the long-term viability of the natural habitats and ecological processes and the plant and animal communities they support on the lands subject to the easement. Additionally, some of the animals that spend a portion of their lives on the Spunky Bottoms Preserve need access to these upland and bluff habitats for periods of their life histories. For example, these bluffs and uplands can be

important wintering areas for amphibians and reptiles that spend the rest of their time in the wetlands on the Spunky Bottoms Preserve. Finally, those uplands drain into Spunky Bottoms, and maintaining the integrity of those upland and bluff areas will help insure the quality of water delivered to the Spunky Bottoms Preserve. (*See* Smail, R.A. and D.J. Lewis, 2009. Forest Land Conversion, Ecosystem Services, and Economic Issues for Policy: A Review, PNW-GTR 797, USDA Forest Service, Pacific Northwest Research Station, Portland, OR.)

Q. If the proposed transmission line is constructed on the Primary Route, what effect will the construction have on the land subject to the conservation easement held by The Nature Conservancy?

A. As with the impacts of construction on the Spunky Bottoms Preserve itself, heavy equipment needed for construction of the power lines and associated activities would directly impact natural habitats on the lands subject to the conservation easement, stressing or even destroying native plants whether by design (tree removal) or as a by-product of the construction. Stresses to the natural plant communities would likely contribute to invasions by undesirable plant and animal species, thereby requiring additional monitoring and stewardship by The Nature Conservancy Staff. If established in the footprint of the construction, invasive plants and animals could threaten restored natural communities well beyond the footprint of the power lines. Construction activities would likely disturb normal activities of many animal species, potentially leading to disruptions of their life cycles, abandonment of the construction area, and possibly contributing directly

or indirectly to reduced fitness and even unnatural mortalities. The physical presence of the power lines will alter/disrupt some animals' behaviors and contribute to decreased fitness and even mortality.

Q. Is there any reason why the land subject to the conservation easement held by The Nature Conservancy is more vulnerable to damage from construction and ongoing maintenance and operation of the transmission line than other land?

A. Yes. The terrain of the easement land is much more variable than the wetland and those soils are prone to erosion when native plant communities are disturbed. Accordingly, erosion during construction and subsequent maintenance/operation is a major concern. Erosion will impact not only the easement lands, but also the Spunky Bottoms Preserve into which the easement lands drain. Similarly, constructing and maintaining the power line through other bluff and upland habitats would alter natural vegetation, increasing erosion and sediment delivered to other floodplain wetlands between the bluffs and the river, thereby degrading those wetlands and decreasing their values to nature and people.

Q. If the proposed transmission line is constructed on the Primary Route, what other effects will the ongoing maintenance have on the land subject to the conservation easement held by The Nature Conservancy?

A. As with maintenance of the power line on the Spunky Bottom Preserve, access for ongoing maintenance would disrupt normal activities of many animal species,

again with the potential of disrupting life cycles, causing abandonment of the area and contributing directly or indirectly to decreased fitness and even unnatural mortalities. Control of vegetation under the lines would likely alter and fragment natural plant communities. Such alterations could promote invasive species and could threaten native plant and animal communities in the footprint and beyond. For example, brood parasitism on forest nesting bird species would certainly increase along the power line.

IV.

AMEREN'S PROPOSED ROUTES WOULD DEGRADE THE ILLINOIS DEPARTMENT OF TRANSPORTATON'S LAGRANGE WETLAND MITIGATION BANK AND SCHUYLER COUNTY BLUFF HABITAT

Q. Besides the Spunky Bottoms Preserve land and the adjacent conservation easement land, is The Nature Conservancy interested in any other lands affected by the proposed transmission line project?

A. Yes. The Nature Conservancy has significant concerns regarding the preservation and integrity of the Illinois Department of Transportation's LaGrange Wetland Mitigation Bank located at in the north-eastern corner of Brown County. The Nature Conservancy also is concerned about the extent to which Ameren's Primary and Alternate Routes in the northern half of Schuyler County will fragment important bluff habitat.

Q. What concerns does The Nature Conservancy have regarding the preservation and integrity of the Illinois Department of Transportation's LaGrange Wetland Mitigation Bank?

A. Ameren's proposed Alternate Route would intersect the Illinois Department of Transportation's LaGrange Wetland Mitigation Bank. The wetland mitigation bank site is especially significant both for its size and location. It is rare to find over 1,600 acres of former floodplain that can be restored to natural hydrologic function, thereby contributing to a more natural river hydrology with associated reductions in flood damages -- that is, the wetland can retain water that would otherwise flood farm fields and developed areas.

The wetland mitigation bank site also provides numerous other ecosystem services including processing and recycling nutrients and sediments, improving water quality, and affording important habitats for native plant and animal species, and providing opportunities for education, research, recreation, and compatible economic development. The wetland bank site was designated by the Federal Highway Administration as an Exemplary Ecosystem Initiative in 2004. (*See* http://www.environment.fhwa.dot.gov/ecosystems/eei/eei04.asp, accessed March 28, 2013). The Direct Testimony of The Nature Conservancy witness Dr. Jeff Walk explains how Ameren's proposed Alternate Route would undermine the goals of the wetland mitigation bank. (*See* TNC Ex. 2.0 at 15-19.)

Q. What concerns does The Nature Conservancy have regarding the impact Ameren's proposed Primary and Alternate routes would have upon the bluff habitat in Schuyler County?

A. Ameren's Primary and Alternate Routes in the northern half of Schuyler County would fragment important bluff habitat. The same likelihood of soil erosion, invasive species spread, and stressors to the plant and animal communities outlined for the Spunky Bottoms Preserve and conservation easement land would apply to these bluff areas generally if the transmission line is constructed on those routes. The main difference would be that soils would erode off the Schuyler County bluffs mostly into channelized streamsand ultimately, the Illinois River, instead of into restored floodplain wetlands. As a result, there would be additional adverse impacts upon overall water quality and the general ecology of the Illinois River.

V.

CONCLUSION

Q. In the context of determining public convenience and necessity, why should the Commission care about the negative environmental effects that you have outlined?

A. As described above, functional floodplains provide numerous benefits for society. Credible studies estimate the benefits provided by floodplain wetlands were equal in value to $19,580/hectare/year ($7924/acre/year) -- greater than for any other ecosystem type except marine estuaries. (*See* Robert Costanza, Ralph d'Arge,

Rudolf de Groot, Stephen Farberk, Monica Grasso, Bruce Hannon, Karin Limburg, Shahid Naeem, Robert V. O'Neill, Jose Paruelo, Robert G. Raskin, Paul Sutton & Marjan van den Belt. 1997. The value of the world's ecosystem services and natural capital. NATURE, VOL 387) A 1994 study reported state and federal agencies and permit seekers were willing to spend as much as $45,000/acre to $124,000/acre ($111,197 to $306,410/hectare) in attempts to restore services provided by freshwater wetlands. (*See* Dennis M. King and Curtis Bohlen. 1994. Making Sense of Wetland Restoration Costs. University of Maryland, Center for Environmental and Estuarine Studies, 1994.) When reasonable alternative routes exist, the net societal costs of constructing and maintaining the proposed power lines through functional floodplain wetlands and/or through upland habitats that will result in degraded wetlands cannot be justified.

In this case, there are viable alternatives that would avoid the Spunky Bottoms Preserve and the IDOT Mitigation Bank. Those options are substantially preferable to the Primary or Alternative Routes as initially proposed by Ameren.

Q. Does this conclude your direct testimony?

A. Yes.