Docket No. 06-0179
ICC Staff Exhibit 5.0

REBUTTAL TESTIMONY

OF

RONALD LINKENBACK

ENGINEERING DEPARTMENT

ENERGY DIVISION

ILLINOIS COMMERCE COMMISSION

ILLINOIS POWER COMPANY d/b/a AmerenIP

DOCKET NO. 06-0179

Application for a

Certificate of Public Convenience and Necessity,

Eminent Domain Authority, and

Approval of an Agreement between affiliated interests

November 17, 2006

Q. Please state your name and business address.

A. My name is Ronald Linkenback and my business address is 527 East Capitol Avenue, Springfield, Illinois.

Q. Are you the same Ronald Linkenback who submitted direct testimony in this proceeding and identified it as ICC Staff Exhibit 1.0?

A. Yes.

Q. What is the purpose of your testimony?

A. On October 16, 2006, Ms. Tracy Dencker, project engineer for Ameren Services Company submitted rebuttal testimony identified as AmerenIP Exhibit 9.0. I will address issues that Ms. Dencker raised in her rebuttal testimony. I also reviewed the testimony and statements of position filed by the various interveners in this proceeding. Nothing in the testimony of Ms. Dencker or the interveners caused me to change my recommendation in direct testimony.

Q. Is Staff offering any other rebuttal witnesses in this case?

A. Yes, ICC Staff witnesses Mr. Phil Hardas (ICC Staff Exhibit 6.0) and David Rearden (ICC Staff Exhibit 7.0) is offering rebuttal testimony.

Q. Please summarize your understanding of Ms. Dencker's rebuttal testimony.

A. Ms. Decker expressed her belief that the transmission line route proposed by AmerenIP in their petition and described in AmerenIP direct testimony is still the recommended routing. In support of this position, Ms. Dencker

in rebuttal testimony stated that the route I proposed around the Village of Baldwin was neither better nor more cost effective than the route proposed by AmerenIP.

Q. Have you read and considered Ms. Dencker's rebuttal testimony?

A. Yes.

Q. Do you agree with Ms. Dencker's position?

A. No. I continue to support the alternate 345kV transmission line route described in my direct testimony, ICC Staff Exhibit 1.0, pg 22.

Q. Please summarize the recommendation in your direct testimony concerning the line route near the Village of Baldwin ("Village" or "Baldwin").

A. In my direct testimony, I recommended AmerenIP utilize an alternative route that goes north and east of Baldwin (shown on AmerenIP Exhibit 3.1 as the red or alternate #2 route) or revise its recommended route around Baldwin to reduce the closeness to existing homes.

I stated that the route I recommended does not cross within 300 feet of any dwelling whereas AmerenIP's proposed route has five homes within 300 feet and two dwellings within 200 feet of the centerline of the route. I also stated that unless there is an overriding issue that I was not aware of, I believe that the transmission line should be as far from existing homes as is reasonably possible.

Q. On lines 57-59 of her rebuttal testimony, Ms. Dencker says that the communities' needs along the entire route can outweigh those of a few individual landowners. Do you have a response?

A. Yes. Ms. Dencker did not specify what impacts the alternative route around Baldwin would have on the other communities along the entire route. I cannot think of any needs or impacts the alternative route near Baldwin would have on any community along the route, other than the Village of Baldwin. Unless AmerenIP can show how the alternative route around Baldwin would in some way impact these other communities, it is hard to see how these communities' needs are an issue when considering the proposed alternative route.

Even the Village of Baldwin which could have specific needs that would have to be weighed against the impact of the line route on a few homeowners, has not filed testimony in this proceeding. In response to Staff data request RDL – Baldwin 1.3 (ICC Staff Exhibit 5.1) the Village stated:

> "The Village does not endorse either route and would prefer the line be further from the Village."

Of the three routes proposed by AmerenIP near the Village, the alternative route recommended by Staff is the furthest from the city limits.

No community has filed testimony in this proceeding and no community needs are addressed in any filed testimony other than those issues concerning Baldwin.

Q. On lines 62-67 of her rebuttal testimony, Ms. Dencker states why she disagrees with some of your reasons for believing that the alternate route is superior. Do you have a response?

A. Yes. Ms. Dencker's opinion is that the World Shooting & Recreational Complex ("WSRC") will bring commercial business to the area and that this growth could require the Village to expand its water treatment plant. She did not so state, but the WSRC would only be an issue in this docket if Ms. Dencker's view is that the alternate line route which goes around the east side of the Village could possibly interfere with either this commercial growth (as stated by Ms. Dencker on lines 42-44 of her rebuttal testimony) or the water treatment plant expansion if either occurs. My short answer is that Ms. Dencker concern with the WSRC and the location of the transmission is based entirely on speculation. I cannot say, nor do I believe that AmerenIP can establish how much, when, or where any future commercial business growth near the Village of Baldwin will occur due to the WSRC. AmerenIP has not provided any evidence showing why locating the 345kV line on the east side of Baldwin could possibly be a deterrent to commercial growth. In fact, Ms. Dencker states just the opposite on lines 222 -225 of her rebuttal testimony by saying:

> "… and Ameren does not feel that transmission lines prevent community growth. A transmission line is not like a vertical wall that inhibits development. Buildings and structures may be constructed adjacent to the power line right-of-way, just not within the right-of-way."

AmerenIP also has not shown why it feels that locating the transmission line east of the Village's corporate limits near the existing Baldwin water treatment plant could be a problem other than stating that Baldwin thought there was a possibility that the alternative route could possibly interfere with future growth of the water treatment plant (AmerenIP Exhibit 9.0, page 11, lines 240-243). Based on the Village's response (ICC Staff Exhibit 5.2) to Staff data request RDL –Baldwin 1.5, the Village states that there is room for one, or possibly two, cells of expansion on the existing Village treatment plant property. Unless AmerenIP purposefully locates its 345kV line through the treatment plant property in such a way as to render part of the property useless, which does not appear to be AmerenIP's intent, the alternate line route should not harm the existing, or next one or two cells of expansion of the water treatment plant. Even if and when the plant has to be expanded beyond the land currently owned by the Village, there is clear land to the north, west and most of the south to expand. If the Village of Baldwin had a concern with the route near its water treatment plant, I would have expected the Village to file testimony-presenting evidence showing why they opposed the route; to date the Village has not filed such testimony.

Compared to the speculative concerns raised by Ms. Dencker with potential commercial business development and possible future need to expand the water treatment plant, what is known is that the AmerenIP proposed transmission line route goes close by existing households and

through the corporate limits of the Village of Baldwin, whereas the alternate route does not. What is also known is that the route selection process AmerenIP used to develop the proposed routes rated proximity of home and occupied structures within 200 feet as a "High Sensitivity" (AmerenIP Exhibit 9.0, lines 106-109) whereas the sensitivity rating of the impact on potential future growth is not known.

Q. On lines 75-76 of her rebuttal testimony, Ms. Dencker states that AmerenIP prefers to keep on its preferred "green" route for various reasons. Do you have a response?

A. Yes. Ms. Dencker states that the preferred route creates the least environment, residential, and agricultural impacts, at the least cost. I understand how the preferred route is less costly than the route I am proposing because it is shorter. I can also understand why the preferred route has less agricultural impact than the alternate route because again it is shorter and it goes through less agricultural area. But, I think it is important to point out that AmerenIP's green route also has less agricultural impact than the alternative route because it goes through an area that is more residential.

I do not see, nor did AmerenIP provide evidence to support, how the preferred "green" route has less residential impact than the alternate route. In fact, this is the issue I am trying to avoid by recommending AmerenIP build its line on the east side of the Village, thereby avoiding

locating the transmission line close to many existing homes as possible and lessening the residential impact.

I do not have enough information to evaluate, nor did AmerenIP provide information to show, why their proposed green route creates less environmental impacts than the route to the east of Baldwin. In the absence of such information, I am assuming it is because the alternate route is 3.1 miles longer than AmerenIP's proposed route.

Q. Please explain why you are recommending a route that is more costly that the route proposed by AmerenIP?

A. As Ms. Dencker stated in her rebuttal testimony (AmerenIP Exhibit 9.0, lines 44-46), the route I am recommending is 3.1 miles longer than the AmerenIP proposed route and that 3.1 miles of additional transmission line would cost $3.79 million.

In my opinion, relocating the transmission line away from the Village of Baldwin at an additional cost of $3.79 million, or a 4.3% increase in the total project cost, is outweighed by the benefit of reducing the number of existing homes that would be located very close to the transmission line. The AmerenIP proposed line route has five homes within 300 feet (the distance of a football field), and two homes within 200 feet of the centerline of the route. The recommended alternative route does not have any homes within approximately 500 feet of the centerline of the route.

Also, the AmerenIP preferred route crosses between the two areas of development around the Village of Baldwin whereas the route I am

proposing does not; this benefit also weighs in favor of moving the line to the alternative route. As shown on Map 3, Page 08 of 11 of the Aerial Photography Map Book (AmerenIP data response to Staff Data Request RDL 1.36 and 2.14), the AmerenIP preferred route passes between the established development in Baldwin and the newer development to the immediate west of the Baldwin. The separation between these two developments is approximately three-quarters of a mile along the main highway through town, Highway 154. There is no development to the east of Baldwin. In my opinion, when development does occur in the Baldwin area, this area between the two developments would be the area to be developed. Placing the transmission line to the east of Baldwin would eliminate any potential for conflict with that future development.

Q. Is your route recommendation more consistent with AmerenIP's route selection process than AmerenIP's preferred route?

A. In my opinion, yes, it is. In her rebuttal, Ms. Dencker references a route selection process (AmerenIP Exhibit 9.0, lines 106-109) when discussing the comprehensive routing study Ameren performed. The Prairie State Interconnect Study Routing Report - route selection process (Staff Exhibit 5.3, pages 1-4 of 19 of AmerenIP data response to Staff Data Request RDL 1.29), which Ms. Dencker is referring to, states on page 3 that sensitivity levels were categorized as follows:

> "High Sensitivity: Areas of high impact potential because of important or valued resources; resources assigned special status; conflict with existing or planned use; and areas posing hazard to construction, operation, or maintenance of the line."

The route selection process goes on to state for Land Use (paragraph 3.4.1) sensitivity level land use related items included:

> "High Sensitivity – Occupied structures within 200 feet and municipal boundaries/urban are.
> Moderate Sensitivity - Forest land cover and other buildings within 200 feet."

Based on The Prairie State Interconnect Study Routing Report - route selection process for land use, the "high sensitivity" level areas are; (1) occupied structures within 200 feet, and (2) municipal boundaries/urban areas. The AmerenIP proposed route around Baldwin goes within 200 feet of occupied structures and does cross through the Village of Baldwin. The route I am proposing does neither.

In my opinion, staying more than 200 feet away from occupied structures and staying outside municipal boundaries outweighs the 4.3% increase in the cost of the project caused by my route recommendation.

Q. Has Ms. Dencker's rebuttal testimony given you any reason to support AmerenIP's proposed transmission line route around the Village of Baldwin?

A. No. For all the reasons in my direct and rebuttal testimony, I continue to support routing the 345kV transmission line to the east of the Village of Baldwin as shown on AmerenIP Exhibit 3.1 as being alternate #2 or the red route.

Q. Do you have any other issues you wish to address in your rebuttal testimony?

A. Yes. I would like to address AmerenIP's response to the black route proposed by Mr. Prange. On lines 294- 295 of Ms. Dencker's rebuttal testimony she states:

> "AmerenIP does not believe the Black route offers a better alternative to any of Ameren's proposed routes."

I believe that even though the route proposed by Mr. Prange is reasonable and meets AmerenIP's line route selection priorities, as well as the AmerenIP proposed line route, it is not superior. In my opinion, there are quite possibly many routes as good as the route AmerenIP proposed, but unless those routes are superior to the AmerenIP proposed route, I do not believe AmerenIP or the Commission needs to consider them. For that reason, I am not recommending that AmerenIP revise its route to accommodate Mr. Prange's proposed route.

Q. Does that conclude your written rebuttal testimony?

A. Yes.

RDL – Baldwin 1.3 Based on the Ameren IP-provided transmission routing maps, one of the two lines that go on the east side of the Village appears to follow the easternmost property line of the Village's water treatment facility, and the second line possibly cuts through the far southeast corner of the same property:

(a) Does the above description of the location of the possible line routes agree with the information the Village has on the two line routs?

(b) If no, please explain what is different and if possible, please provide a copy of the map or document, or the name of the Ameren IP drawing the Village is referencing.

Answer: **The Village has no exact maps. The route has not been surveyed or staked out as of 7/24/06. While the proposed east line follows along the edge of the eastern City Limits the proposed west route goes through the western edge of the Village. At this time, the Village does not endorse either route and would prefer the line be further from the Village.**

RDL – Baldwin 1.5 If the Village has no plans, at this time, to expand the water treatment facility, please answer the following questions:

(a) What will be the next phase of the water treatment facility expansion?

(b) Will the next phase of the expansion occur on existing Village property?

(c) How close will the next phases of expansion be to the proposed location of the two Ameren IP transmission line routes?

(d) When does the Village foresee needing to install the next phase of the facility?

(e) What will have to take place (population growth, governmental regulations, etc.) to require the next phase to occur?

Answer:

(a) That is unknown at this time as there are no engineering plans.

(b) Yes. There is room for one and possibly two cells on the property the Village of Baldwin currently owns.

(c) That is not known, however, it is possible it would be directly over the lagoon or very close.

(d) When the current facility can no longer treat waste properly to meet environmental regulations or when population growth exceeds the capacity of the current facility.

(e) Population growth, government regulations or current facility out-lives its useful life.

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Ameren Data Response

RDL 1.29 Provide a copy of the environmental impact evaluation used in establishing the recommended line routes and siting criteria (Ex. 2.0, p. 6, lines 113-115).

Response: Refer to the Prairie States Interconnect Study Routing Report dated 3/1/06, Sections 3, 4 and Appendix B attached to these responses.

3.0 ROUTE SELECTION PROCESS

3.1 Introduction

The alternative routes identified in this routing study result primarily from the evaluation of field observations, information available in the public domain, and recent aerial photography. These items were evaluated to identify opportunities and constraints within the project area. Impacts will result to some degree when construction occurs, no matter which route is selected. The goal of this process is to minimize impacts while identifying routes for further evaluation and scrutiny.

3.2 Issues

During the course of work for this study, preliminary issues regarding the proposed project were identified. AmerenIP will continue to engage relevant segments of the public using a variety of methods in order to provide information and obtain public feedback. Preliminary issues are listed below.

Residences and Towns

The transmission line corridors were routed to minimize potential impacts on communities. Concern has been expressed by the public regarding transmission line proximity to individual residencens as well as communities.

Major River Crossings

The Mississippi and Kaskaskia Rivers are prominent features in the project area. Both of these major water bodies would be crossed by the Baldwin-Rush Line regardless of the final alignment. Crossing these major rivers present a unique set of challenges from engineering and environmental perspectives.

Agricultural Land Loss

The project area is dominated by agriculturally based activities. Effects on agricultural operations and loss of production area are concerns for affected landowners. AmerenIP is in the process of entering into a mitigation agreement with the Illinois Department of Agriculture so that farming activities are addressed. AmerenIP has taken into

consideration the loss of agricultural land when determining the structure type for the project.

Effects on Natural Resources

Some level of impact to natural resources would likely occur. Some resources of concern are forested areas, threatened and endangered species, "protected" conservation areas, wetlands, and cultural resources.

3.3 GIS Analysis

An accurate and detailed base map is a fundamental requirement for any linear routing study. With this in mind, POWER used, Geographic Information Software "GIS", as the basis for integrating and modeling pertinent information. GIS is a computer software system which can be loaded with regionally specific data sets. It is an information system applied specifically to geographical data. The data can include detailed aerial imagery draped with parcel ownership, natural resources information, and transportation data sets, to name a few. GIS data can be grouped into three general types, raster, vector and grid. Aerial imagery is a form of raster data, elevation data is one type of grid data and vector data consists of points, lines and polygons, which describe features near the ground surface. Most vector data sets have their own database containing detailed information about that geographic location. The various data sets can be spatially overlaid within the computer. This allows the user to evaluate details associated with route selection and facilitate the decision making process. It enables the user to make informed decisions in line routing and helps planners identify and avoid areas of potentially high impact throughout the project planning stage. Calculations can be made which show the potential impacts and costs associated with each alternative route. Individual route segments can then be adjusted to minimize potential impacts. Ultimately, each proposed route alternative can be compared on the basis of associated impacts and costs.

Once the project boundary was established, the area was flown and photographed to produce high resolution digital aerial imagery. The aerial imagery was georeferenced to the section corners in the public land survey system and added to the GIS. The process of visualizing the region, based on sensitivity, allows for an informed method of selecting preliminary routing corridors. Aerial imagery was used to locate and identify buildings, roads, trails and land types within the project area. The building location data was then refined to identify individual residential structures. Homes were buffered at a distance of 200 feet assigned as high sensitivity. Other structures were also buffered at 200 feet and assigned sensitivity. Land cover types were digitized and assigned sensitivity levels. Publicly available information about the area was acquired and added to the GIS database. Planned and existing land use and natural resource data were assigned appropriate sensitivity levels. Details on sensitivity levels are discussed below, in the section on siting criteria.

3.4 Siting Criteria

Based on data collected for the project area, criteria were developed to help evaluate the sensitivity of a resource for potential impacts resulting from a transmission line. More

specifically, sensitivity is that measure of probable adverse response of each resource to direct and indirect impacts associated with the construction, operation, maintenance of proposed 345kV transmission lines. The following criteria were considered:

- Resource Value: A measure of rarity, high intrinsic worth, singularity or diversity of a resource within the area;
- Protective Status: A measure of the formal concern expressed for a resource, either through legal protection or by designation of special status;
- Present and Future Uses: A measure of the level of conflict based on policies of land management and/or use; and
- Constructability/Hazards: A measure of the degree to which a resource represents a significant challenge or hazard to construction and/or operation of the Project.

Using the above criteria as a framework, the mapped inventory data were categorized based on relative sensitivity to the introduction of a transmission line. Land use; natural and biological, cultural, and water resources were mapped identifying areas of varying resource sensitivity levels. Engineering constraints were also taken into consideration. Refer to Map 1 in Appendix A for information relative to resource sensitivity.

Overlays of resource sensitivity were used to produce a composite GIS representation illustrating potential constraints and opportunities for alternative transmission line corridors. Areas or features highly sensitive to disturbance from the construction, operation, and maintenance of the transmission line represent the greatest potential constraints or potentially significant changes to the human, natural, or cultural environment. Sensitivity levels were categorized as follows:

- High Sensitivity: Areas of high impact potential because of important or valued resources; resources assigned special status; conflict with existing or planned use; and areas posing hazard to construction, operation, or maintenance of the line. For purposes of the refinement of the assumed centerlines, crossing these areas should be avoided or minimized if complete exclusion is difficult or impossible.
- Moderate Sensitivity: Areas of moderate impact potential because of important or valued resources; resources assigned special status; some conflict with existing or planned use; and areas posing some hazard to construction, operation or maintenance of the line. For purposes of the refinement of the assumed centerlines, crossing these areas should be minimized to the extent practicable.
- Low Sensitivity: Areas where resource conflicts have been identified as minimal or present little hazard to construction and operation of the facility. These opportunities occur where the impacts can be reduced, minimized or spanned. In many cases, similar impacts have already occurred or will occur in the future. An example of such an opportunity would be an area of low sensitivity that has roads and existing or planned utility rights-of-way.

3.4.1 Land Use

The project area is dominantly rural in nature and sparsely populated. Major towns in the project area include Red Bud and Marissa with estimated populations (2004) of 3,522 and 2,069 respectively. Other towns in the project area include Tilden, Lenzburg, Baldwin,

Ruma, Maeystown, Fults and Renault. The primary land types in the project area are cropland, pasture, and forested areas. A significant portion of the land area is actively farmed. Some of the major crops include corn and soy beans. Cattle and swine operations are scattered throughout the area. Most of the area is dry land farmed, with irrigation infrastructure occurring very infrequently. Tile drains are present in some portions of the project area to allow for and increase agricultural production.

For many years, coal mining has been prevalent in the eastern portion of the project area. Much of the area in the northeastern part of the project, near Marissa, falls under active surface and underground coal mining permits. The western part of the area has very little known coal resources. Limestone and dolomite are the most common forms of bedrock. There are two active limestone mines in this area. Limestone is being mined southeast of the town of Fults along the bluffs overlooking the east bank of the Mississippi River. The Holcim cement plant is located to the south of the Rush Island Power Station on the west bank of the Mississippi.

Areas were mapped according to the sensitivity of a particular land use to siting a 345kV transmission line. Levels of sensitivity were assigned to the identified land uses within the project area based on the criteria described above. The sensitivities were determined by the characteristics of the land use classification, prior experience in siting transmission lines, and specific characteristics of the Project. Land use related items considered included:

High Sensitivity
- Occupied structures w/in 200 feet
- Municipal boundaries / urban area

Moderate Sensitivity
- Forest land cover
- Other buildings w/in 200 feet (barns, silos, etc.)

Low Sensitivity
- Cropland land cover
- Pasture land cover

3.4.2 Biological Resources

Biological and related resources in the project area are classified as either high or moderate sensitivity. Several protected conservation areas exist within the project area. The Kaskaskia River corridor is designated as a State Fish & Wildlife Area. East of the village of Maeystown, is the Renault Karst Area. This is a unique and sensitive land feature due to the number of solution cavities and caves within the local limestone deposits. Some of the caves in this area are know hibernation spots for two species of bats species federally listed under the Endangered Species Act. Many of the major drainages and ravines in this area consist of forested wetlands. These forest wetlands may contain habitat for endangered plant and animal species. Several protected conservation areas are present along bluffs overlooking the Mississippi River flood plain.