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December 29, 2009

# HAND DELIVERED

Jeff R. Derouen Executive Director Public Service Commission 211 Sower Boulevard P.O. Box 615 Frankfort, KY 40602-0615

> RE: Application of Kentucky Power Company for Approval of Renewable Energy Purchase Agreement Between Kentucky Power Company and FPL Illinois Wind, LLC, P.S.C. Case No. 2009-<u>00545</u>

Dear Mr. Derouen:

Enclosed please find and accept for filing the following materials:

- (1) The original and ten copies of Kentucky Power Company's Application For Approval of Renewable Energy Purchase Agreement between Kentucky Power Company and FPL Illinois Wind, LLC, including supporting testimony, exhibits, and documents; and
- (2) The original and ten copies of Kentucky Power Company's Motion for Confidential Treatment. Included with the motion are ten copies of the redacted "public" version of the documents for which confidential treatment is being sought. Also included are a sealed confidential version of the subject documents, highlighted to indicate the material for which confidential treatment is sought.

A copy of the materials filed, except for the confidential version of the documents for which confidential treatment is sought, is being served on counsel for the Kentucky Industrial Utility Customers, Inc. and the Attorney General, Office for Rate Intervention.

Please do not hesitate to contact me if you have any questions.

STITES & HARBISON PLLC

ATTORNEYS

Jeff R. Derouen December 29, 2009 Page 2

Very truly yours, Mark R. **Overstreet** 

cc: Michael L. Kurtz Dennis G. Howard, II COMMONWEALTH OF KENTUCKY

RECEIVED

## BEFORE THE PUBLIC SERVICE COMMISSION

DEC 2 9 2009

In the Matter of:

PUBLIC SERVICE COMMISSION

THE APPLICATION FOR APPROVAL OF RENEWABLE ENERGY PURCHASE AGREEMENT FOR WIND ENERGY RESOURCES BETWEEN KENTUCKY POWER COMPANY AND FPL ILLINOIS ) WIND, LLC

Case No. 2009- 00545

)

# VERIFIED APPLICATION FOR **APPROVAL OF RENEWABLE ENERGY PURCHASE** AGREEMENT FOR WIND ENERGY RESOURCES BETWEEN KENTUCKY POWER COMPANY AND FPL ILLINOIS WIND. LLC

\*\*\*\*\*

Kentucky Power Company ("Kentucky Power" or "Company") applies to the Public

Service Commission of Kentucky ("Commission") pursuant to KRS 278.300 and 807 KAR

5:001, Section 11 for approval of the Renewable Energy Purchase Agreement ("REPA")

between Kentucky Power and FPL Illinois Wind, LLC ("FPL Wind"). In support thereof,

Kentucky Power states:

#### APPLICANT

Kentucky Power is an electric utility organized as a corporation under the laws of 1.

the Commonwealth of Kentucky in 1919. A certified copy of Kentucky Power's Articles of

Incorporation and all amendments thereto was attached to the Joint Application in Case No. 99-

149<sup>1</sup> as Exhibit 1. The post office address of Kentucky Power is 101A Enterprise Drive, P.O.

5190, Frankfort, Kentucky 40602-5190. Kentucky Power is engaged in the generation, purchase,

<sup>&</sup>lt;sup>1</sup> In the Matter of: The Joint Application Of Kentucky Power Company, American Electric Power Company, Inc. And Central And South West Corporation Regarding A Proposed Merger, P.S.C. Case No. 99-149.

transmission, distribution and sale of electric power. Kentucky Power serves approximately 175,000 customers in the following 20 counties of eastern Kentucky: Boyd, Breathitt, Carter, Clay, Elliott, Floyd, Greenup, Johnson, Knott, Lawrence, Leslie, Letcher, Lewis, Magoffin, Martin, Morgan, Owsley, Perry, Pike and Rowan. Kentucky Power also supplies electric power at wholesale to other utilities and municipalities in Kentucky for resale. Kentucky Power is a utility as that term is defined at KRS 278.010.

2. Kentucky Power is a wholly-owned subsidiary of American Electric Power Company, Inc. ("AEP"). The AEP System is a multi-state public utility holding company system that provides electric service to customers in parts of eleven states – Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia and West Virginia.

#### **FACTS**

#### A. The Transaction And Relief Requested.

3. On December 21, 2009, Kentucky Power entered into the REPA with FPL Wind for the purchase by Kentucky Power from FPL Wind of a 100 MW share of the electrical output and environmental attributes of FPL Wind's Lee-DeKalb Wind Energy Center ("LDWEC") for a 20-year term. The contract is expressly subject to approval by this Commission. A summary of terms and conditions of the REPA is attached as Exhibit JFG-1 to the testimony of Jay F. Godfrey filed in support of this Application. The REPA is attached as Exhibit JFG-2 to Mr. Godfrey's testimony.

4. Kentucky Power is seeking approval of the REPA pursuant to KRS 278.300 in accordance with the Commission's December 22, 2004 Order in Case No. 2004-00459.<sup>2</sup> In accordance with the Commission's October 21, 2009 Order in Case No. 2009-00353,<sup>3</sup> Kentucky Power is seeking to recover the costs associated with the REPA in connection with its application for general adjustment of rates, Case No. 2009-00459.<sup>4</sup>

#### B. <u>FPL Wind and LDWEC</u>.

5. FPL Wind is a subsidiary of NextEra Energy Resources, LLC, which in turn is an affiliate of FPL Group, Inc. NextEra is the largest generator of wind power in the United States, with over 6,200 MW of wind generation resources in operation at the end of 2008.

6. The LDWEC primarily is located approximately 80 miles west of Chicago on contiguous tracts in Lee and DeKalb Counties, Illinois. The primary location of LDWEC generally is acknowledged as having the best wind resources within the 13 states plus the District of Columbia that comprise the PJM Grid. The LDWEC initially is expected to consist of 145 GE 1.5 XLE Wind Turbines, each rated at 1,500 kW, and associated equipment. The LDWEC is expected to have an initial nameplate capacity of approximately 217.5 MW. FPL Wind projects the LDWEC will begin commercial operations on or before December 31, 2009.

C. <u>The RFP</u>.

7. On June 1, 2009, American Electric Power Service Corporation ("AEPSC"), as agent for Kentucky Power and the other six AEP operating companies, issued a Request For

<sup>&</sup>lt;sup>2</sup> In the Matter of: Application of Louisville Gas and Electric Company for Approval of New Rate Tariffs Containing a Mechanism for the Pass-Through of MISO-Related Revenues and Costs Not Already Contained In Base Rates, P.S.C. Case No. 2004-00459 (Ky. P.S.C. December 22, 2004).

<sup>&</sup>lt;sup>3</sup> In the Matter of: Application of Louisville Gas & Electric Company and Kentucky Utilities Company for Approval of Purchased Power Agreements and Recovery of Associated Costs, Case No. 2009-00353 (Ky. P.S.C. October 21, 2009).

<sup>&</sup>lt;sup>4</sup> In the Matter of: Application of Kentucky Power Company for General Adjustment of Electric Rates of Kentucky Power Company, P.S.C. Case No. 2009-00459

Proposal to acquire up to 1,100 MW (nameplate) of additional renewable resources by the end of 2011.<sup>5</sup> The RFP included engineering specifications, and required bidders to document their financial and technical capabilities to construct and operate any project bid. Bidders also were required to provide detailed data on project locations and construction plans.

8. AEPSC conducted two pre-bid "webinars" to facilitate responses. In addition, the RFP was distributed to all renewable generation developers known to AEP and was announced on the United States Department of Energy's "The Green Power Network" website. A press release announcing the RFP also was distributed to renewable and energy industry publications.

9. Twenty-two bids from renewable energy developers for projects interconnected to PJM and located in Illinois, Pennsylvania, Indiana, West Virginia, Ohio, and Maryland were received in response to the RFP. No bids were received for projects located in Kentucky. A summary comparison of the qualified bids received in response to the RFP is attached as Exhibit JFG-3 to the testimony of Jay F. Godfrey filed in support of this Application.

10. AEPSC ranked the proposals using price and non-price (risk-related) factors. The price-related factors, which were weighted approximately 60%, included energy pricing and the cost to transmit and deliver the energy to Kentucky Power's load. Non-price factors were weighted 40%, and included the location of the project in relation to Kentucky Power's service territory, the developer's experience, the reasonableness of the schedule, the time to full-operation, the developer's credit-worthiness and financing plan, proximity to and availability of transmission for the project, the time required for required transmission upgrades, the status of land rights, the feasibility of future expansion, nameplate capacity, the technology used, and production forecasts.

<sup>&</sup>lt;sup>5</sup> The renewable resources subject to the RFP included wind, commercial-scale solar, biomass, geothermal, biologically-derived methane gas, and hydroelectric (as certified by the Low Impact Hydro Institute).

11. Based upon its evaluation of these factors, AEPSC selected FPL Illinois Wind's proposal for further negotiations. On December 21, 2009 Kentucky Power and FPL Illinois Wind executed the REPA.

#### D. <u>Significant Contract Terms</u>.

12. The start date for the REPA is the earlier of: (a) October 1, 2010; or (b) three days after FPL receives notice of (i) a final and non-appealable order of the Commission approving the conditions and terms of the REPA; and (ii) a final and non-appealable order of the Commission authorizing Kentucky Power to recover all of the jurisdictional costs associated with the REPA through the Company's base rates. REPA Article 2; ¶ 6.1; Definition of "Contract Start Date."

13. Kentucky Power's obligations under the REPA are expressly contingent upon Kentucky Power's receipt of final and non-appealable orders from this Commission authorizing Kentucky Power to (a) enter in the REPA; and (b) recover all of the jurisdictional costs associated with the REPA through the Company's base rates. REPA ¶ 6.1.

14. Under the REPA, Kentucky Power is obligated to take and pay for the electrical output of its 100 MW share of the LDWEC, as adjusted under the terms of the agreement. REPA ¶ 5.1.

15. The prices paid by Kentucky Power for its share of the LDWEC vary depending on the day of the week, the time-of-day, and the month during which the energy is produced. The REPA provides for three pricing periods: Off-peak, Peak, and Premium-peak. The Premium-peak period includes all weekdays that occur during the winter months (December-February) and two summer months (July and August). The Premium-peak price is equal to 120% of the Peak price. The Off-peak price represents approximately a 27% discount from the

Peak-price. The actual prices for each of the pricing periods are set out at Exhibit C to the REPA. The REPA also provides for 2.25% annual increase in the contract prices. The prices to be paid by Kentucky Power are among the lowest received in the RFP process for a 100 MW block.

16. The REPA provides that Kentucky Power is to receive all current and future environmental attributes of its 100 MW share of the LDWEC, including the associated Renewable Energy Certificates ("REC"). RECs are tradable, non-tangible, energy commodities in the United States that represent proof that one MWh of electricity was generated from an eligible renewable energy resource.

17. The term of the REPA is 20 years.

18. Under the REPA, FPL Wind Illinois is required to establish and maintain a Seller Performance Fund to secure its financial obligations under the REPA.

# THE FINANCIAL OBLIGATIONS ASSUMED BY KENTUCKY POWER UNDER THE REPA ARE FOR A LAWFUL OBJECT WITHIN ITS CORPORATE PURPOSES; ARE NECESSARY AND APPROPRIATE FOR, AND CONSISTENT WITH, ITS PROVISION OF ELECTRICAL SERVICE; WILL NOT IMPAIR KENTUCKY POWER'S ABILITY TO PROVIDE ELECTRICAL SERVICE; AND ARE REASONABLY NECESSARY TO THE PROVISION OF SUCH SERVICE

A. Kentucky Power's Need For Additional Capacity.

19. Although a winter-peaking utility, Kentucky Power experiences peaks during both the summer and winter seasons. Kentucky Power's peak of 1,685 MW was recorded in January, 2005. Its most recent winter weak was 1,673 MW in January, 2008. Kentucky Power's highest recorded summer peak was 1,358 MW in July, 2005. The Company's 2008 energy sales to retail and internal wholesale customers were 7,342 GWh. Kentucky Power's forecasted retail energy sales in 2013 and 2020 are 7,602 GWh and 7,956 GWh, respectively.

20. Kentucky Power is a party to the 1951 AEP Interconnection Agreement ("Pool Agreement"). Along with the other parties to the Pool Agreement, Appalachian Power

Company, Indiana Michigan Power Company, Columbus Southern Power Company and Ohio Power Company, Kentucky Power is required to provide generating facilities (or resources) to meet its firm load requirement.

21. Kentucky Power's Big Sandy Power Plant consists of two steam-electric generating units having an aggregate net capacity of 1,060 MW. In addition, Kentucky Power has a long term purchase agreement for 393 MW of Rockport Units No. 1 and 2. Because its peak demand exceeds its capacity resources, Kentucky Power is a "deficit" member of the AEP-East Pool.

21. To meet the needs of its customers in excess of its own resources, Kentucky Power historically has relied upon capacity and energy purchases from the generating resources of other AEP operating companies in the AEP-East Pool.

22. Kentucky Power's future capacity and energy requirements are determined through an integrated and coordinated resource planning program with the other AEP-East Companies. As part of this planning process the AEP system considers both demand and supplyside options.

# B. <u>The Role Of Renewable Generation</u>.

23. AEP has included reasonably priced renewable generation within the supply side options it considers in planning for the future capacity and energy needs of its operating companies. In 2007, AEP developed an overall plan to reduce CO<sub>2</sub> emissions by acquiring by 2020 a renewable energy portfolio equal to five percent of its energy sales. Specifically, AEP established a goal of acquiring 1,000 MW (nameplate) of additional wind generation resources through long-term power purchase agreements by the end of 2010. More recently, these goals were expanded to the acquisition of 2,000 MW (nameplate) of renewable resources by the end of

2011, and the acquisition by 2020 of renewable energy resources equal to 10% of its retail energy sales. In its 2009 Integrated Resource Plan, Kentucky Power assumed that AEP would seek to acquire by the close of 2012 renewable resources equal to at least seven percent of AEP's energy sales.

24. Driving these goals in part has been increasing scrutiny by regulators, state and federal legislatures, and policy makers of electric generating plant  $CO_2$  emissions. Recently, this scrutiny has resulted in efforts to control such emissions through governmental mandate, including the imposition of Renewable Portfolio Standards ("RPS") for electric generation:

- On June 26, 2009, the U.S. House of Representatives approved H.R. 2454, the American Clean Energy and Security Act. The legislation requires electric utilities to meet 20% of their electricity demand through renewable energy sources (15%) and energy efficiency (5%) by 2020.
- The Senate Energy and Natural Resources Committee reported the American Clean Energy Leadership Act (S 1462) out of committee on June 17, 2009. The bill requires that by 2020 sellers of electricity produce at least 15% of their energy sales from renewable generation (four percent of the requirement can be met through energy efficiency improvements.)
- According to the United States Department of Energy, 24 states, plus the District of Columbia, have adopted RPS. Five other states have nonbinding goals for the implementation of renewable generation. http://apps1.eere.energy.gov/states/maps/renewable \_portfolio\_states.cfm#map

25. Even those states, such as Kentucky, that have yet to adopt RPS are considering mandates. For example, on November 20, 2008, Governor Steve Beshear announced his comprehensive energy plan, entitled, *Intelligent Energy Choices for Kentucky's Future*. Among the seven strategies included in the plan was an increase in Kentucky's renewable energy generation to 1000 MW by 2025. http://www.governor.ky.gov/NR/rdonlyres/32B6DCAF-57F5 -49DC-B9F3-4E889746CBB0/0/20081120energyFactSheet.pdf

26. Similarly, in the 2009 General Assembly, House Majority Leader, Representative Adkins, introduced HB 537. Under the bill a Renewable Energy and Efficiency Standard would be established for Kentucky. Among the requirements that would have been imposed by the standard was to increase Kentucky's renewable generation to 1000 MW by 2025.

#### http://www.lrc.ky.gov/record/09RS/HB537/bill.doc The bill was not enacted.

27. On December 7, 2009, the Administrator of the Environmental Protection Agency found under Section 202(a) of the Clean Air Act that the emission of six "greenhouse gases," including  $CO_{2}$ ,<sup>6</sup> in the atmosphere may be reasonably anticipated to endanger the public health and to endanger the public welfare.

<u>http://www.epa.gov/climatechange/endangerment/downloads/FinalFindings.pdf</u> Although the finding does not impose any requirements on operators of coal-fired electric generating plants, it is a prerequisite to further regulation of  $CO_2$  by the EPA.<sup>7</sup>

C. <u>The Financial Obligations Assumed By Kentucky Power Under The</u> <u>REPA Are For A Lawful Object Within Kentucky Power's Corporate</u> <u>Purposes</u>.

28. Kentucky Power is a corporation organized under the laws of the Commonwealth of Kentucky. It is regulated by the Commission and, pursuant to Kentucky's Certified Territory Statutes, KRS 278.016-278.018, possesses the exclusive right and obligation to provide retail electric service within its certified territory in parts of 20 counties in Kentucky.

29. The financial obligations assumed by Kentucky Power under the REPA are in connection with a long-term contract for the purchase of capacity and energy to meet Kentucky Power's obligation, as an electric utility providing service within its certified territory within the

<sup>&</sup>lt;sup>6</sup> The other five gases were methane, nitrous oxide, hydroflurocarbons, perflurocarbons, and sulfur hexafluoride.

<sup>&</sup>lt;sup>7</sup> On September 30, 2009, the EPA issued a proposed rule that defines when Clean Air Act permits under the New Source Review and Title V operating permits programs would be required in connection with the emission of six

Commonwealth of Kentucky, to provide adequate, efficient and reasonable service to its Kentucky customers. KRS 278.030. As such, the REPA, and Kentucky Power's financial obligations under the REPA, are for a lawful object within the Company's corporate purpose.

# D. <u>The Financial Obligations Assumed By Kentucky Power Under the REPA</u> <u>Are Necessary And Appropriate For, And Consistent With, The Provision</u> <u>Of Electric Service By Kentucky Power In Its Certified Territory</u>.

30. Kentucky Power's peak demand (1685 MW) exceeds its installed and contractual capacity (1353 MW) by 353 MW. Although Kentucky Power has historically relied upon capacity and energy purchases from the generating resources of other AEP operating companies in the AEP-East Pool, it can not prudently (or contractually) do so for an extended period. The capacity available to Kentucky Power under the REPA enables Kentucky Power partially to reduce its capacity deficit. The capacity and energy made available to Kentucky Power under the REPA likewise will enable the Company to provide adequate, efficient and reasonable service at a reasonable cost.

31. Capacity and resource planning for the AEP-East operating companies is conducted on a joint and coordinated basis. The joint planning process identified the need for Kentucky Power to acquire at least 100 MW of renewable energy generation. The REPA enables Kentucky Power to meet that need.

32. As a result, the financial obligations assumed by Kentucky Power under the REPA are necessary and appropriate for, and consistent with, Kentucky Power's provision of electric service.

<sup>&</sup>quot;greenhouse gases," including CO<sub>2</sub>. <u>http://www.epa.gov/NSR/documents/FinalRule2009.pdf</u> Although the proposed rule does not enact RPS, it evinces efforts by the United States to restrict the emission of CO<sub>2</sub>.

E. <u>The Financial Obligations Assumed By Kentucky Power Under The</u> <u>REPA Will Not Impair Its Ability To Provide Adequate, Efficient</u> <u>and Reasonable Electric Service In The Commonwealth Of</u> <u>Kentucky</u>.

33. A condition precedent to Kentucky Power's financial obligations under the REPA is the entry by this Commission of a final and non-appealable order authorizing Kentucky Power to recover through the Company's base rates all of the jurisdictional costs associated with the REPA. Thus, the financial obligations associated with the REPA will be recovered through the Company's base rates and will not impair Kentucky Power's ability to provide electric service .

F. <u>The Financial Obligations Assumed By Kentucky Power Under The REP</u> <u>Are Reasonably Necessary And Appropriate For The Provision Of</u> <u>Electric Service By The Company</u>.

34. Kentucky Power is a deficit company in the AEP-East Pool. It is entering into the REPA to obtain capacity and energy to serve its customers.

35 Given the scrutiny on the state and federal level over the past five years of CO<sub>2</sub> emissions, the implementation by 24 states and the District of Columbia of RPS, legislative efforts in the United States Congress and the Kentucky General Assembly to enact such standards, the inclusion by Governor Beshear of renewable goals in his comprehensive energy plan, and the EPA's recent endangerment finding, it is increasingly likely that within the 20-year term of the REPA Kentucky Power will be subject to RPS or other limitations on its use of coalfired generation to meet its capacity and energy needs. It thus is reasonably necessary and appropriate for Kentucky Power to begin to acquire reasonably-priced renewable energy resources such as wind power

36. The acquisition of renewable generation resources now, instead of waiting until Kentucky Power becomes subject to RPS, or other limitations on its use of coal-fired generation to meet its energy and capacity needs, will result in significant financial advantages to the

Company and its customers. In particular, by acting now Kentucky Power and its customers will avoid the higher prices likely to result from the increased demand from any national RPS. In addition, the sites offering the most reasonably-priced energy in PJM likely will be built-out first.

37. The federal production tax credit ("PTC") for wind developers is scheduled to expire on December 31, 2012. The PTC for wind energy offers tax credit benefits to wind developers equal to 2.1 cents per KWh of renewable energy generated over the ten-year credit eligibility period. This equates to a pre-tax benefit of approximately 3 cents per KWh or \$30 MWh. The REPA, if approved by the Commission, will capture this benefit for Kentucky Power's customers for the 20-year term of the agreement. Following the expiration of the production tax credits it is likely there will be a significant incremental increase in the cost of purchased or self-developed wind energy.

38. Wind is a clean, inexhaustible, indigenous energy source. Wind farms do not use fuel for their operations; as a result the price of wind power does not vary in accordance with fuel costs. Wind energy currently is acknowledged as the most economical new source of renewable energy in the United States. Recent RFPs have established that wind energy is cheaper than hydro, biomass, biogas, or solar power.

39. The RFP process was fair, open and widely publicized in an effort to encourage the largest number of qualified and competitive responses, and to obtain the best price. The prices to be paid by Kentucky Power under the REPA are the lowest offered in the responses to the RFP for a 100 MW block of wind energy.

40. Kentucky Power performed separate dispatch emulations using the Promod model comparing AEP-East Member Company – including Kentucky Power – production cost profiles that both included *and* excluded the assignment of this 100 MW of wind energy to KPCo. Based

on this comparison, all Kentucky Power variable *energy* costs directly associated with the REPA, as well as all avoided internal generation and AEP-East Pool-related variable and energy costs, were identified. In addition, the incremental reductive impact on KPCo's AEP Pool capacity settlement charges also was determined. Based upon these analyses, Kentucky estimates that the REPA will increase the Company's production-related costs by approximately 0.07 (seven one-hundredths) of a cent per kWh over the ten-year average period (2010-2020). Stated another way, a residential customer utilizing 1,000 kWh per month would pay approximately 70 cents more on his or her monthly electric bill with the REPA. A schedule illustrating the relative change in Kentucky Power's annual revenue requirement as a result of the REPA is attached as Exhibit SCW-3 to the testimony of Scott C. Weaver filed in support of this Application.

41. Based upon these considerations, the financial obligations associated with the REPA are reasonably necessary and appropriate for the provision of electric service by Kentucky Power.

# **EXHIBITS AND SUPPORTING INFORMATION**<sup>8</sup>

42. The following information and testimony is appended to this Application in conformity with the Commission's regulations<sup>9</sup> and in support of the Company's requested relief:

(a) A general description of Kentucky Power's property and other information
 required by 807 KAR 5:001, Section 11(1)(a). <u>EXHIBIT 1</u>.

- (b) A map and plan of LDWEC. **EXHIBIT 2**.<sup>10</sup>
- (c) The testimony and supporting exhibits of Jay F. Godfrey. **EXHIBIT 3**.<sup>11</sup>

<sup>&</sup>lt;sup>8</sup> Kentucky Power has no outstanding trust deeds or mortgages. KRS 807 KAR 5:001, Section 11

<sup>&</sup>lt;sup>9</sup> 807 KAR 5:001, Section 11(1)(b) (except to the filing of the REPA as the evidence of indebtedness), 807 KAR 5:001, Section 11(1)(d), and 807 KAR 5:001, Section 11(1)(e) are not applicable to this Application.

<sup>&</sup>lt;sup>10</sup> A general description of LDWEC is provided in paragraph 6 of this Application.

- (d) The testimony and supporting exhibits Scott C. Weaver. **EXHIBIT 4**.
- (e) The financial exhibit required by 807 KAR 5:001, Section 6. EXHIBIT 5.

Wherefore, Kentucky Power Company respectfully requests that the Commission issue an Order:

1. Approving the Renewable Energy Purchase Agreement between Kentucky Power Company and FPL Illinois Wind, LLC.

2. Granting the Company all other relief to which it may appear entitled.

Respectfully submitted.

Bruce F. Clark Mark R. Overstreet R. Benjamin Crittenden STITES & HARBISON PLLC 421 West Main Street P. O. Box 634 Frankfort, Kentucky 40602-0634

COUNSEL FOR KENTUCKY POWER COMPANY

<sup>&</sup>lt;sup>11</sup> A copy of the REPA is filed as Exhibit JFG-2 to Mr. Godfrey's testimony.

#### **VERIFICATION**

Timothy C. Mosher, President and Chief Operating Officer, Kentucky Power Company, first being duly sworn, and having knowledge of the matters set forth herein, and further having been duly designated by Kentucky Power Company to provide this verification, states that the matters set forth in the Application For Approval Of Renewable Energy Purchase Agreement For Wind Energy Resources Between Kentucky Power Company And FPL Illinois Wind, LLC are true.

Timothy C. Mosher

COMMONWEALTH OF KENTUCKY ) )SS COUNTY OF 1

Subscribed and sworn to before me, a Notary Public, by Timothy C. Mosher, President and Chief Operating Officer, Kentucky Power Company, this 21 day of December, 2009.

Notary Publics -2011 My Commission Expires

# **CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing Application was served by first class mail, postage prepaid, upon the following parties of record, this 29<sup>th</sup> day of December, 2009.

Michael L. Kurtz Boehm, Kurtz & Lowry 2110 CBLD Center 36 East Seventh Street Cincinnati, OH 45202

Dennis Howard II Assistant Attorney General Office for Rate Intervention P. O. Box 2000 Frankfort, KY 40602-2000

and s

Mark R. Overstreet

# EXHIBIT 1

Kentucky Power Company is a public utility principally engaged in the business of providing electricity to Kentucky consumers. The Company generates and purchases electricity which it distributes and sells at retail in all, or portions of, the Counties of Boyd, Breathitt, Carter, Clay, Elliott, Floyd, Greenup, Johnson, Knott, Lawrence, Leslie, Letcher, Lewis Magoffin, Martin, Morgan, Owsley, Perry, Pike and Rowan. The Company also furnishes electric service at wholesale to the City of Olive Hill and the City of Vanceburg.

The Company's Big Sandy Power Plant consists of two steam-electric generating units having an aggregate net capacity of 1,060 MW. The Company's electric transmission system includes substation capacity of approximately 4,340,700 KVA and approximately 1,249 pole miles of lines, and is interconnected with the systems of neighboring utilities. The Company's electric distribution system includes substation capacity of approximately 2,007,000 KVA and approximately 9,930 circuit miles (including secondary). Other properties include service buildings, stores buildings, garages and other structures and equipment.

The net original cost of the property and the cost thereof to the applicant at September 30, 2009 was:

Original Cost - Electric Plant in Service

| Production Plant                | \$  | 538,978,466   |
|---------------------------------|-----|---------------|
| Transmission Plant              |     | 436,102,125   |
| Distribution Plant              |     | 559,287,361   |
| General Plant                   |     | 34,139,614    |
| Intangible Plant and Other EPIS |     | 19,458,986    |
| TOTAL                           | \$1 | 1,587,966,552 |

Less Accumulated Provisions for Depreciation, Depletion and Amortization of Electric Utility Plant

\$ 529,666,708

Net Original Cost

\$ 1,058,299,844

# EXHIBIT 2





# EXHIBIT 3

## **BEFORE THE**

PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF

**GENERAL ADJUSTMENTS IN** ELECTRIC RATES OF KENTUCKY POWER COMPANY CASE NO. 2009-

## DIRECT TESTIMONY OF JAY F. GODFREY

# **ON BEHALF OF** KENTUCKY POWER COMPANY

December 29, 2009

# DIRECT TESTIMONY OF JAY F. GODFREY, ON BEHALF OF KENTUCKY POWER COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

# CASE NO. 2009-

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#### JAY F. GODFREY – 2

# DIRECT TESTIMONY OF JAY F. GODFREY, ON BEHALF OF KENTUCKY POWER COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

#### I. Introduction

#### 1 Q: PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A: My name is Jay F. Godfrey. I am employed as Managing Director – Renewable
Energy for American Electric Power Service Corporation (AEPSC), a wholly
owned subsidiary of American Electric Power, Inc (AEP). AEPSC supplies
engineering, financing, accounting and similar planning and advisory services to
AEP's eleven electric operating companies, including Kentucky Power Company
("Kentucky Power, KPCo or Company"). My business address is 155 West
Nationwide Boulevard, Columbus, Ohio 43215.

#### II. Background

# 9 Q: PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND 10 BUSINESS EXPERIENCE.

A: I earned a Bachelor's degree in Business Administration from California State
University - Chico and a Master's degree in Business Administration from National
University. In 2006 I completed the AEP Strategic Leadership Program at The
Ohio State University.

I have over fourteen years of commercial and financial management experience in the wind energy industry. Prior to joining AEPSC's wind energy group in 2002, I worked for seven years in various project finance and wind project development roles in Europe and the U.S. for Enron Wind Corporation, since acquired by General Electric (GE), which operates today as GE Energy. Other
 business management experience includes serving as the Financial Controller for
 two publicly held companies in non-energy related fields, and holding other
 management positions.

Since joining AEPSC, I have been involved in the asset management and 5 project financing of AEP's two wind projects, the 150 MW Trent Wind Farm and 6 7 the 160.5 MW Desert Sky Wind Farm, development efforts for potential green-field 8 projects, and the procurement and management of AEP's wind and solar renewable 9 energy purchase agreements which now total approximately 1,306 MW. Mv 10 experience includes negotiating wind and solar energy power purchase and sales 11 agreements, wind system operations and maintenance agreements, real estate 12 agreements related to wind projects, wind turbine purchase agreements, and project 13 loan documents. I also have experience evaluating the impact of various financial 14 parameters on wind and solar project investment returns. I serve as a non-voting 15 member of the Board of Directors of the American Wind Energy Association 16 (AWEA), the Washington D.C. based trade association for the wind industry, and currently serve as chair to the AWEA Utility Working Group which advises that 17 18 same Board.

# 19 Q: WHAT ARE YOUR RESPONSIBILITIES AS MANAGING DIRECTOR – 20 RENEWABLE ENERGY?

A: As Managing Director – Renewable Energy, I am responsible for managing AEP's
 portfolio of renewable Power Purchase Agreements (PPAs) and related long-term
 structured greenhouse gas / carbon credit offset agreements. I direct the team that
 structures and issues the renewable energy Requests for Proposals (RFPs) and

model PPAs, reviews and responds to questions posed by potential bidders, and
evaluates proposals. I also lead the negotiation and finalization of the PPAs with
the winning bidder(s). In addition, I am responsible for the acquisition of potential
new wind project development sites within AEP's service territory.

#### 5 6

**O**:

# HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY COMMISSIONS?

7 A: Yes. I have filed testimony before the Public Utility Commission of Texas, in PUC Docket Nos. 31326 and 32624; the Indiana Utility Regulatory Commission in 8 9 Cause Nos. 43328 and 43750; the Michigan Public Service Commission, in Case No. U-15361; the Public Utilities Commission of Ohio, in Case No. 08-917-EL-10 SSO and Case No. 08-918-EL-SSO; the Corporation Commission of the State of 11 Oklahoma in Cause No PUD 20090031; and the Virginia State Corporation 12 Commission in Case PUE-2009-00102. I also provided testimony before the 13 Virginia State Corporation Commission in Case No. PUE-2008-00003 and oral 14 testimony before the Indiana State Regulatory Flexibility Committee and before the 15 Virginia State Corporation Commission in Case PUE-2009-00038. 16

17

# III. Purpose of Testimony

# 18 Q: WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS 19 PROCEEDING?

A. The purpose of my testimony in this proceeding is to support KPCo's request for
Kentucky Public Service Commission (KPSC) approval of a Wind Power Purchase
Agreement (PPA) between KPCo and FPL Energy Illinois Wind, LLC (FPLEWIC)
also known the Lee-DeKalb Wind Energy Center (LDWEC) for the sale of a 100

MW<sup>1</sup> share of its electrical output and environmental attributes to KPCo for a 20 1 2 year period. As the name implies, the project is located primarily in Lee and 3 DeKalb Counties, in northern Illinois. FPLEWIC is a subsidiary of NextEra Energy Resources, which is an affiliate of FPL Group, Inc. I will discuss AEP's experience 4 5 with wind energy projects and technology, renewable energy in the U.S., the wind resources within the PJM Interconnect, the Request for Proposals (RFP) process 6 which led to the execution of the Wind PPA securing the construction of a wind 7 energy generation facility and KPCo's rights to its power production, capacity and 8 9 environmental attributes, and the benefits associated with Renewable Energy 10 Certificates (RECs).

# 11 Q: ARE YOU SPONSORING ANY EXHIBITS IN THIS PROCEEDING?

I am sponsoring Exhibit JFG-1, which is a summary of the Wind PPA terms 12 A: 13 between LDWEC, "Seller", and KPCo, "Purchaser." Exhibit JFG-2, which is the 14 Wind PPA between KPCo and LDWEC. I am also sponsoring Exhibit JFG-3, 15 which illustrates a comparison of the qualified bids received in response to the 2009 16 Renewable RFP. Each exhibit, with the exception of JFG-3, which is entirely confidential, has a public version and a version for which the Company is seeking 17 18 confidential treatment pursuant to KRS 61.878 and 804 KAR 5:001, Section 8. 19 These exhibits were prepared by me or under my direction and supervision.

20

# IV. <u>AEP Wind Energy Projects</u>

# Q: DOES AEP HAVE EXPERIENCE IN THE DEVELOPMENT, CONSTRUCTION, OWNERSHIP, AND OPERATION OF ANY WIND ENERGY PROJECTS?

<sup>&</sup>lt;sup>1</sup> A percentage share equal to 100 MW of the facility capacity, which is currently 217.5 MW.

1 Yes. AEP has been involved in the development of several wind energy projects. A: 2 In fact, AEP is a pioneer in wind power research and development. In 1995, the former Central and South West Corporation (CSW), which merged with AEP in 3 June 2000, built the first utility-scale wind farm in Texas, which is the state that 4 5 now leads the nation in wind energy production. The 6 megawatt (MW) Fort Davis wind facility was the first project completed under the United States Department of 6 7 Energy (DOE) and Electric Power Research Institute (EPRI) Turbine Verification 8 Program and was developed to encourage the manufacture of wind turbines in the 9 United States. At the time, the 500 kilowatt (kW) wind turbines were the largest 10 U.S.-manufactured wind turbines. The project exceeded its five-year scope and the 11 experience enabled the company to move forward with other projects, including 12 larger scale developments using more advanced and larger wind turbines.

In 2001, AEP completed the construction of the Trent Wind Farm, also known as the Trent Mesa Wind Project. A wholly owned wind power plant, the Trent Mesa Wind Project consists of one hundred General Electric (GE) Wind Energy wind turbines rated at 1.5 MW each for a total capacity of 150 MW. AEP oversaw the construction of and owns and operates the Trent Mesa Wind Project.

AEP also owns and operates the Desert Sky Wind Farm, which was completed in December of 2001. AEP purchased the Desert Sky Wind Farm in December of 2001. The wind farm consists of one hundred seven GE Energy wind turbines rated at 1.5 MW each, for a total nameplate capacity of 160.5 MW which it owns and operates.

# Q: HAS AEP ENTERED INTO ANY LONG-TERM PURCHASE AGREEMENTS FOR WIND ENERGY?

| 1 | A: | Yes. Not including the KPCo PPA with LDWEC, AEP has entered into fifteen              |  |  |  |  |  |  |
|---|----|---|--|--|--|--|--|--|
| 2 |    | long-term purchase agreements for wind energy to serve customers of its regulated     |  |  |  |  |  |  |
| 3 |    | electric operating companies. Currently, AEP affiliates have agreements to            |  |  |  |  |  |  |
| 4 |    | purchase the energy output from three wind facilities located in Illinois, three wind |  |  |  |  |  |  |
| 5 |    | facilities located in Indiana, five wind facilities located in Oklahoma, one wind     |  |  |  |  |  |  |
| 6 |    | facility located in West Virginia, and one wind facility located Texas.               |  |  |  |  |  |  |

In addition to the fifteen long-term wind generation purchase agreements described above, AEP Energy Partners, a non-regulated AEP subsidiary, is an owner/operator of the facilities, are parties to two long-term wind generation sales agreements to unaffiliated utilities encompassing 100% of the output of both the Trent Mesa Wind Project and the Desert Sky Wind Farm, which are located in Texas. They additionally purchase the output under long-term contracts from two additional wind projects in Texas totaling 177 MW.

Q: WOULD YOU PLEASE SUMMARIZE THE MAGNITUDE AND NATURE
 OF AEP'S EXISTING WIND GENERATION RESOURCES?

A: AEP currently has 1296.1 MW of long-term renewable wind energy resources
under contract, as shown in Table 1. With the addition of the 100 MW PPA project
to KPCo's portfolio, all seven AEP operating companies that own generation
resources will now have long-term contracts for renewable energy. Table-1, shown
below, lists the existing wind PPA's for each operating company.

### TABLE-1:

## 2 AEP Operating Companies' Long-Term Wind Energy Power Purchase Agreements

| AEP Operating Company     | Execution<br>Date | Developer       | Project         | Contracted<br>Quantity<br>(MW) |
|---------------------------|-------------------|-----------------|-----------------|--------------------------------|
| Public Service Company    |                   | Horizon Wind    |                 |                                |
| of Oklahoma               | 2/05              | Energy          | Blue Canyon II  | 151.2                          |
| Public Service Company    |                   |                 |                 |                                |
| of Oklahoma               | 4/05              | NextEra (FPL)   | Weatherford     | 147.0                          |
| Public Service Company    |                   |                 |                 |                                |
| of Oklahoma               | 8/06              | Edison Mission  | Sleeping Bear   | 94.5                           |
| Indiana Michigan Power    | 8/07              | BP/Dominion     | Fowler I        | 100.0                          |
| Appalachian Power Company | 8/07              | BP Wind Energy  | Fowler III      | 100.0                          |
| Appalachian Power Company | 9/07              | Orion           | Camp Grove      | 75.0                           |
| Appalachian Power Company | 8/08              | Invenergy LLC   | Beech Ridge     | 100.5                          |
| Southwestern Electric     |                   |                 |                 |                                |
| Power Company             | 12/08             | Babcock & Brown | Majestic        | 79.5                           |
| Public Service Company    |                   |                 |                 |                                |
| of Oklahoma               | 1/09              | NextEra (FPL)   | Elk City        | 98.9                           |
| Public Service Company    |                   | Horizon Wind    |                 |                                |
| of Oklahoma               | 2/09              | Energy          | Blue Canyon V   | 99.0                           |
| Appalachian Power Company | 2/09              | Invenergy LLC   | Grand Ridge II  | 51.0                           |
| Appalachian Power Company | 2/09              | Invenergy LLC   | Grand Ridge III | 49.5                           |
| Indiana Michigan Power    | 2/09              | BP Wind Energy  | Fowler II       | 50.0                           |
| Ohio Power Company        | 2/09              | BP Wind Energy  | Fowler II       | 50.0                           |
| Columbus Southern Power   | 2/09              | BP Wind Energy  | Fowler II       | 50.0                           |
| Total                     |                   |                 |                 | 1296.1                         |

#### 3

#### V. Wind as a Resource

# 4 Q: WHAT ARE THE KEY CHARACTERISTICS OF WIND AS AN ENERGY 5 RESOURCE IN PJM AND THROUGHOUT THE UNITED STATES?

A: Wind is a clean, inexhaustible, indigenous energy source. Wind farms do not use
any fuel for their operations, which means that there is no mining or drilling for
fuel, no radioactive or hazardous wastes, and no use of water for steam or cooling.
Therefore, wind power operates without emitting any greenhouse gases (GHGs) or
other pollutants. The absence of fuel also means that the price of wind power does
not vary in accordance with fuel prices. In fact, wind is one of the lowest-priced

renewable energy technologies available today.

1

2 The use of wind as an energy resource is accompanied by a unique set of characteristics. Wind is intermittent energy resource and it does not always blow 3 when electricity is needed. Since wind energy cannot be stored, it cannot be 4 harnessed to meet the time of electricity demands, which gives wind relatively 5 6 lower capacity values, vis-à-vis other generation resources with the same nameplate rating. In addition, geographical areas providing the best wind resources may be 7 located in remote areas requiring the construction of transmission lines in order to 8 9 connect wind farms with the power transmission grid. Wind is also limited in that it does not always blow consistently in the same geographical location at all times of 10 11 the year. In some regions, the wind does not blow at all during the humid summer months when electricity is needed the most for cooling though it does generally 12 13 blow more robustly during winter months where energy is also needed for heating. 14 However, there are sites where the availability of wind resources and transmission 15 lines meet the challenges facing wind power in other areas.

16 The wind resource does not appear to be an issue in relation to the 17 LDWEC project. The primary location of the Project, northern Illinois, is generally 18 acknowledged as having the best wind resources within the thirteen (13) states plus 19 the District of Columbia which comprise the PJM grid.

#### 20 Q: WHAT ARE THE KEY CHARACTERISTICS OF WIND AS AN ENERGY 21 RESOURCE IN PJM?

A: Wind energy technology has experienced major advancements in the past ten years.
In 1996, the average utility-scale wind turbine had a capacity of 550 kW, an
average hub height of nearly 131 feet, and produced enough energy to power

approximately 125 average American homes for one year. Today, the average wind 1 turbine capacity being installed in the United States is at least 1.5 MW, with an 2 average hub height of 265 feet, and produces enough energy to power 3 approximately 425 average American homes for one year. Improvements in 4 5 technology continue to make wind turbines more efficient. Technological improvements that have occurred in the past few years, which serve as benefits to 6 7 the LDWEC project, include the following:

8 <u>Wind Turbine Availability:</u>

Availability Factor (AF) is a measurement of the reliability of a generating unit. It
refers to the percentage of time that a generating unit is ready to generate and is not
out of service for maintenance or repairs. Modern wind turbines can have an AF of
more than 98%--higher than most other types of generating units. After more than
two decades of engineering refinement, today's wind machines are highly available
and reliable.

15 <u>Capacity Factor:</u>

16 Capacity Factor (CF) is one element in measuring the productivity of a wind turbine 17 or any other power production unit. It compares the unit's actual energy production 18 over a given period of time with the amount of energy the unit would have 19 produced if it had run at its full capacity for the same period of time.

A wind plant is "fueled" by the wind, which blows steadily at times and not at all at other times. Although modern utility-scale wind turbines typically operate 65% to 90% of the time, they most often generate at less than full capacity. Therefore, a CF of 25% to 45% is common, although they may achieve higher CFs
during windy time periods. By comparison, per the North American Electric
 Reliability Corporation (NERC), a typical base load coal unit will have a CF in the
 range of 70 - 80%.

4 Wind Turbine Design and Size:

Utility-scale wind turbines for land-based wind farms come in various sizes, with 5 6 rotor diameters ranging from about 70 meters (m) to about 100 m or 230 to 310 feet, and with towers of roughly the same size. A 100 m machine, with an 80 m 7 8 tower, would have a total height from the tower base to the tip of the rotor of approximately 150 m (465 feet). In recent years, the height of the towers have 9 10 increased allowing wind farms to take advantage of stronger wind currents that tend 11 to occur at a greater height, though the increase in the cost of steel has reduced the 12 economic incentive of building wind turbine towers at the highest levels.

### 13 Identifying Wind Resources:

The power available from the wind is a function of the cube of the wind speed. Therefore, a doubling of the wind speed yields eight times the power output from the wind turbine. All other things being equal, a wind turbine at a site with an average wind speed of 5 m per second (m/s), or 11.2 miles per hour (mph), will produce nearly twice as much power as a wind turbine at a location where the wind speed averages 4 m/s, or 8.9 mph.

20

#### VI. Wind Power Purchase Agreement

## Q: WOULD YOU PLEASE DESCRIBE THE WIND ENERGY GENERATION FACILITY TO BE CONSTRUCTED IN ILLINOIS?

A. The Project is developed under the direction of NextEra. The first phase of the
 project is for 217.5 MW and could be expanded by an additional 22.5 MW for a

| 1 | total of 240 MW. The Project is being developed primarily in Lee and Dekalb           |
|---|---|
| 2 | Counties in Illinois on approximately 22,000 contiguous acres of land that has been   |
| 3 | secured in the area. The Project was chosen for the consistent strong winds over the  |
| 4 | area and for its access to existing electrical transmission lines. Upon completion of |
| 5 | the initial phase, the Project is expected to supply enough energy to meet the annual |
| 6 | electric needs of approximately 49,500 average U.S. homes.                            |

7 Q: WHAT EXPERIENCE DOES NEXTERA HAVE IN THE WIND 8 GENERATION BUSINESS?

9 A: NextEra is the largest owner of wind generation resources in the United States with
10 over 6,200 MW in operation spread over 17 states as of the end of 2008 according
11 to the American Wind Energy Association. In public filings, NextEra has projected
12 that it will add another 1,170 MW to this total in 2009 of which 217.5 MW includes
13 the LDWEC project.

#### 14

### Q: WHAT ROLE DID YOU HAVE IN THE RFP PROCESS?

My involvement in the RFP process was to ensure that the RFP conformed with 15 A: AEP's intent to competitively bid and secure up to 1,100 MW of additional 16 renewable resources on behalf of its regulated operating companies scheduled to be 17 operational by December 31, 2011 and from which KPCo and its affiliates would 18 19 purchase energy, capacity, and environmental attributes for a term of 20 years. As 20 with past RFPs, I directed the entire process including structuring and issuing the RFP, reviewing and responding to questions posed by potential bidders, evaluating 21 22 proposals, negotiating with "short-listed" bidders, and selecting the winning 23 proposal(s).

# 1Q:WHY DID AEPSC ISSUE AN RFP FOR RENEWABLE ENERGY2RESOURCES ON BEHALF OF ITS OPERATING COMPANIES?

A: As discussed more fully in the direct testimony of KPCo witness Weaver, KPCo's
affiliate, AEPSC, issued the RFP in order to advance its strategy to voluntarily
reduce, avoid, and offset GHG emissions produced by its generation fleet by
diversifying its current fleet with zero emission generation technology.

7 As states throughout the U.S. continue to implement Renewable Portfolio Standards (RPS) and goals, the availability of renewable energy may be constrained 8 9 in the coming years. For example, a majority of the states in the PJM footprint have enacted mandatory RPS, which has already resulted in increased demand for 10 11 renewables. Current state mandates within PJM include: Delaware, Illinois, 12 Maryland, Michigan, New Jersey, Ohio, Pennsylvania, Rhode Island, West Virginia, and the District of Columbia. Even if these same standards and goals spur 13 14 growth in the number of renewable energy providers, there is no guarantee that the 15 supply of renewable energy resources will remain abreast of the demand.

16 Acting now is also important to take advantage of industry subsidies that are 17 being offered by the government. As stated in the testimony of Company Witness 18 Scott Weaver, the renewable energy production tax credit (PTC), a credit of 2.1 19 cents per kilowatt-hour, is the primary federal incentive for wind energy and has 20 been essential to the industry's growth. Although the PTC has undergone a series 21 of short-term extensions since its establishment in 1992, in February of 2009, 22 through the American Recovery and Reinvestment Act, Congress acted to provide a 23 three-year extension of the PTC through December 31, 2012. It also provided a subsidy as an alternative to the PTC in the form of either an Investment Tax Credit 24

1 (ITC), in the amount of 30% of the facility costs, or a grant-in-lieu of the ITC for 2 the same amount through December 31, 2010. These federal subsidies, which go to the at-risk owner of the facility, helps to buy-down the purchase price that KPCo or 3 any purchaser would pay for the renewable energy product. In other words, the tax 4 5 credit ultimately decreases the amount that native load customers pay for renewable 6 energy products. If Congress does not extend the ITC beyond 2010 or the PTC 7 beyond 2012, KPCo customers will end up paying more to acquire additional 8 megawatt-hours of renewable energy as a part of any federal or state mandate. 9 Obtaining a prudent amount of renewable energy while the PTC/ITC is in place 10 mitigates the potential risks associated with having to acquire renewable energy in 11 constrained markets and without the benefit of such a credit or subsidy.

# 12 Q: ARE THERE ANY OTHER ADVANTAGES TO THE TIMING OF KPCO'S 13 WIND ENERGY ACQUISITION FROM THE LDWEC PROJECT?

14 Yes. Currently, wind energy is generally acknowledged as the most economical A: 15 new source of renewable energy in the U.S. In fact, KPCo is the beneficiary of the 16 "early mover discount" because wind is also, in general, the most economical 17 renewable generation resource in the PJM region, as evidenced by recent RFPs that show that it is cheaper than other new renewable generation resources, including 18 19 solar and hydro. The best sites offer the most reasonably-priced energy in PJM and 20 will be built-out first, and, as stated earlier, the availability of resources will become 21 constrained as more utilities seek to add renewables due to state and potential 22 federal requirements, resulting in higher prices. It is to the advantage of utilities and their customers to obtain the lowest, reasonable cost wind energy to hedge 23 24 against future price increases and regulatory requirements.

### 1 Q: WAS AEP'S WIND EXPERIENCE BENEFICIAL IN DEVELOPING THE 2 RFP AND SUBSEQUENT WIND PPA?

A: AEP is able to leverage its experience as a wind generation developer, owner,
operator, and seller, along with its experience conducting RFP's and negotiating
long-term wind energy agreements, to effectively balance the interests of both the
developer and KPCo.

### 7 Q: GENERALLY DESCRIBE THE RFP AND THE PROCESS 8 IMPLEMENTED FOR CONDUCTING THE RFP?

9 AEPSC, as agent for KPCo and the other six operating companies issued an RFP on A: June 1<sup>st</sup>, 2009 attached as Exhibit JFG-1. The bids sought by the 1,100 MW 10 Renewables RFP was for projects with a minimum 20 MW (nameplate) of new 11 renewable generation capable of being operational by December 31, 2011 to fulfill 12 13 a portion of AEP's energy and capacity requirements for KPCo. The RFP 14 stipulated that all initial and future outputs of the facility, including energy, capacity, and environmental attributes, including RECs, be sold to KPCo through a 15 PPA for a term of 20 years. The bidder is required to deliver its electrical output to 16 17 the transmission system (a substation bus) of a PJM member. The bidder is also responsible for any feasibility or impact studies and upgrades required to the 18 transmission system to accommodate the facility's electrical output. Bidders were 19 20 required to offer "all-in" pricing, which includes all fixed and variable costs 21 associated with capital expenditures, operation and maintenance (O&M), and any 22 other costs associated with delivering the full output of the facility to the delivery point. Bidders were also required to provide "time-of-day" pricing that paid the 23 Seller more for energy produced during peak demand periods (summer afternoons) 24

and less during periods of generally low demand (spring and fall months and nights
 and weekends).

The RFP included a Form PPA, which defined items such as terms and conditions of service, commercial operation and construction of the facility, delivery and metering, O&M, performance assurance, insurance, permitting and licensing, Supervisory Control and Data Acquisition (SCADA) requirements, billing and settlement terms, and credit and collateral requirements. The PPA serves as the contract between the Seller (awarded bidder) and KPCo.

9 The RFP required bidders to document their financial and technical 10 capabilities to ensure the successful construction of the project, and to demonstrate 11 that they had successfully completed the development, financing, and 12 commissioning of at least one utility scale renewable energy project in the United 13 States with characteristics similar to the project defined in the RFP. For wind 14 projects, AEPSC required bidders to provide a summary of the wind speed data, 15 including meteorological source and basis, used in the development of energy 16 projections for the project. This data was to include an 8,760 hour calendar year wind forecast for the proposed hub height. In addition, the RFP required that 17 18 proposals contain an 8,760 hour calendar year energy production profile, including 19 losses, adjusted for the proposed site's air density, fully explaining all assumptions, 20 extrapolations, and adjustments, and disclosing the proposed wind turbine power 21 curve.

1 To maximize interest and response from bidders, AEPSC conducted the 2 1,100 RFP on behalf of the seven AEP operating companies and conducted two pre-3 bid Webinars open to all interested bidders.

Proposals were to include detailed data on the proposed project location 4 and construction schedule, including site plans, interconnection status and 5 requirements, permitting requirements, documentation of secured land rights, 6 financing plans, and other documentation demonstrating that the bidder has the 7 ability and legal right to construct, interconnect, and operate the project as 8 9 Site plans were to include a detailed technical description of the proposed. proposed project, including commercial operating experience of the proposed wind 10 11 generator and warranty terms. Plans were also to include a detailed description of the proposed data acquisition and monitoring system to supply KPCo with real-time 12 operational data. 13

AEPSC distributed the RFP announcement via direct electronic mail 14 messages to renewable generation developers known to AEP. In addition, AEPSC 15 issued a news release on June 1, 2009, to various renewable and energy industry 16 publications to notify entities that may not have been included in the direct 17 electronic mail, but may have an interest in participating in the RFP. The RFP 18 was also announced on the DOE Energy Efficiency and Renewable Energy's "The 19 Green Power Network" web site. The RFP was publicly posted on AEP's web site 20 21 at www.aep.com/go/rfp.

# Q: HOW DID AEP PROCESS AND EVALUATE THE BIDS IT RECEIVED IN RESPONSE TO THE RFP?

24 A: AEPSC first reviewed each proposal to determine if all of the required information

was provided. AEPSC then ranked all of the conforming proposals based on 1 pricing structure, and developed a "short list" of proposals from a total of four 2 bidders based on both price and non-price (risk) factors. Price factors, which were 3 4 weighted approximately 60%, included energy pricing and the cost to transmit and deliver energy from the delivery point to KPCo's load. Non-price factors, which 5 6 were weighted approximately 40%, included the location of the project relative to KPCo's service territory, developer experience, viability of schedule, lead time to 7 8 full operation, creditworthiness, financing plan, proximity to and availability of 9 transmission, lead time of any required transmission upgrades, property and site land rights and control, feasibility of future facility expansion, nameplate capacity, 10 11 wind turbine technology, analysis of wind and energy production forecasts, and nature and quantity of exceptions to the Wind PPA included in the RFP. 12 13 Based on an evaluation of price and non-price factors, AEPSC selected 14 NextEra's Project proposal, among others, for further (post-bid) negotiations. WOULD YOU PLEASE CHARACTERIZE THE BIDS AEPSC RECEIVED 15 0: 16 **IN RESPONSE TO THE RFP?** 17 A. Yes. AEPSC received twenty-two bids from renewable energy developers for projects interconnected into PJM and located in Illinois, Pennsylvania, Indiana, 18 19 West Virginia, Ohio, and Maryland. The total capacity of projects for which 20 AEPSC received bids was approximately 2,200 MW. Exhibit JFG-3 shows the qualified bids for PJM projects received in 21 22 response to the 2009 RFP. The chart in JFG-3 reflects the prices represented in an 23 Around the Clock (ATC) basis for bundled product (Energy + Capacity + RECs) on

24 a \$/MWh basis, adjusted for time-of-day pricing and expected production, that were

bid in response to the RFP. The "bundled energy" price applies to all of the
renewable contracts that were a result of these RFPs. As shown in Exhibit
JFG-3, the LDWEC PPA that was executed on behalf of KPCo was amongst the
lowest costs of the overall bids received in the RFP for renewables in PJM.

5

### Q: WHAT WAS THE RESULT OF THE RFP PROCESS?

Based on a final analysis of all relevant factors affecting both KPCo and its 6 A: 7 customers, AEPSC selected a 100 MW portion from the 217.5 MW (nameplate) 8 proposal from NextEra. KPCo and LDWF executed, subject to any necessary regulatory approval for cost recovery, a Wind PPA with a wind weighted average 9 10 around-the-clock 2009 contract price as identified in Exhibit JFG-1. This price will 11 escalate beginning in January 1, 2012 at 2.25% per year for the term of the contract. 12 A summary of the terms and conditions of the Wind PPA resulting from the RFP 13 process is attached to my testimony as Exhibit JFG-1, and the Wind PPA is 14 attached to my testimony as Exhibit JFG-2.

The results of the RFP fulfilled KPCo's intent to secure one or more PPA(s) totaling 100 MW share of a renewable wind generation consistent with the KPCo Integrated Resource Plan which was filed August 17, 2009. The Wind PPA will supply a 100 MW share of its electrical output and environmental attributes to KPCo for a period of 20 years at a reasonable cost and terms for KPCo and its customers, effective with the approval of the cost recovery sought in this petition.

# 21Q: WOULD YOU PLEASE EXPLAIN HOW THE TIME-OF-DAY22CHARACTERISTICS OF WIND ENERGY IMPACTED THE TERMS AND23CONDITIONS OF THE LDWEC WIND PPA?

A. To address the generation characteristics of wind energy, a three-tiered approach to

| 1        |    | the pricing was structured by dividing the year into Off-peak, Peak, and Premium-      |
|----------|----|--|
| 2        |    | peak periods. The bids received in the 2009 RFP established an initial Off-peak        |
| 3        |    | price (energy + capacity + RECs) at a level much lower than the expected annual        |
| 4        |    | average around-the-clock (ATC) price was expected to be. Bidders were asked to         |
| 5        |    | bid a Peak and a Premium-peak price (120% of the Peak price). The Premium-peak         |
| 6        |    | pricing, also referred to as "Super-peak", consists of the peak weekdays that occur    |
| 7        |    | during the winter months (December - February) and two of the summer months            |
| 8        |    | (July and August). Because of this price structuring, KPCo pays substantially less     |
| 9        |    | Off-peak than for Peak and Super-peak. Time-of-day pricing thus better aligns the      |
| 10       |    | cost for renewable energy with the market value of energy.                             |
| 11       |    | Approximately 56% of wind generation in PJM is expected to be available                |
| 12       |    | during off-peak periods (nights + weekends + NERC holidays), with the balance          |
| 13       |    | occurring during peak periods (weekdays). By way of comparison, approximately          |
| 14       |    | 53% of the hours in a given year are off-peak hours.                                   |
| 15<br>16 | Q: | WHAT IS THE ADVANTAGE OF EXECUTING A 20-YEAR WIND PPA<br>ON BEHALF OF KPCO?            |
| 17       | А. | The 20-year Wind PPA also provides a direct benefit to the consumer. The 20-year       |
| 18       |    | agreement, which is also the expected life of the technology, allows renewable         |
| 19       |    | energy resource providers to procure long-term financing, thereby amortizing the       |
| 20       |    | cost of their projects over a longer period. Such financing has the effect of reducing |
| 21       |    | the upfront costs and allows for a more economically levelized price over the term     |
| 22       |    | of the contract.   |

VII. <u>Renewable Energy Certificates</u>

23

### 1 Q: WOULD YOU PLEASE DESCRIBE THE RECS THAT KPCO WILL 2 OBTAIN IN CONJUNCTION WITH THE PROJECT?

3 The Wind PPA stipulates that KPCo will receive all current and future attributes A: from the Project, including the associated RECs. These RECs are legal proof that 4 one megawatt-hour (MWh) of electricity has been generated by a renewable-fueled 5 or environmentally friendly source. The RECs will be tracked through the PJM 6 7 Generation Attribute Tracking System (GATS). Administered by PJM 8 Environmental Services, Inc., GATS is a database that tracks the ownership of 9 RECs and generation attributes that result from the generation of electricity as they are traded or used to meet government standards. GATS provides environmental 10 11 and emissions attributes reporting and tracking services to its subscribers in support of RPS and other information disclosure requirements that may be implemented by 12 13 government agencies. The RECs associated with the Project demonstrate that KPCo has obtained all attributes associated with the renewable energy produced by 14 the Project. 15

16

### VIII. Conclusion

BASED ON YOUR FAMILIARITY WITH THE RFP PROCESS AS YOU 17 **O**: HAVE DESCRIBED IT, AND BASED ON YOUR EXPERIENCE IN THE 18 DEVELOPMENT COMMERCIAL **OPERATION** OF 19 AND WIND 20 **GENERATION** FACILITIES AND WITH WIND GENERATION AGREEMENTS AS BOTH A PURCHASER AND SELLER, DOES THE 21 WIND PPA DESCRIBED HEREIN PRESENT A PRUDENT, VALUABLE, 22 AND REASONABLY PRICED RENEWABLE ENERGY GENERATION 23 **RESOURCE FOR KPCO?** 24

25 A: Yes, it does.

### 26 Q: DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

27 A: Yes, it does.

### AFFIDAVIT

Jay F. Godfrey, upon first being duly sworn, hereby makes oath that if the foregoing questions were propounded to him at a hearing before the Public Service Commission of Kentucky, he would give the answers recorded following each of said questions and that said answers are true.

|                                | Jay F. Godfrey   |  |
|--------------------------------|--|--|
| State of Ohio                  |  |  |
| County of Franklin             | )<br>)   |  |
| ¢.                             |  |  |
| Subscribed and sworn to before | ore me, a Notary Public, by Jay F. Godfrey this $21^{s+1}$ |  |
| day of <u>December</u>         | 2009.  |  |
| Honing X Xted                  |  |  |
| Notary Public                  |  |  |
| My Commission Expires 1        | anuary 4, 2014   |  |

DONNA J. STEPHENS Notary Public, State of Ohio My Commission Expires 01-04-2014

### EXHIBIT JFG-1

### KENTUCKY POWER COMPANY RENEWABLE ENERGY PURCHASE AGREEMENT ("<u>REPA</u>") WITH FPL ENERGY ILLINOIS WIND, LLC

#### SUMMARY TERM SHEET

Kentucky Power Company entered into an agreement (REPA) with FPL Energy Illinois Wind for an aggregate nameplate output of 100 MW from the first 217.5 MW phase of its Lee-DeKalb Wind Energy Center being constructed in Lee and DeKalb counties, Illinois. The terms, conditions and pricing provisions of the REPA are summarized below.

This Summary Term Sheet is qualified in its entirety by reference to, and in no way alters, the actual terms and conditions of the REPA. Except as otherwise indicated by the context, capitalized terms used in this Summary Term Sheet have the meanings set forth in the REPA.

- <u>Seller</u>. FPL Energy Illinois Wind, LLC.
- <u>Purchaser</u>: Kentucky Power Company.
- <u>Term.</u> 20 years from the Contract Start Date ("<u>CSD</u>").
- Price. Purchaser will pay Seller the Contract Rate set forth in Exhibit A attached hereto for each MWh of Renewable Energy delivered under the REPA for the calendar years 2010 and 2011. These prices will then increase at 2.25% per year in 2012 and thereafter. Purchaser will also reimburse Seller for any operating reserve or other PJM charges associated with scheduling the Renewable Energy to Purchaser via PJM's eSchedule process.
- <u>Contract Start Date</u>. The REPA will be effective upon the receipt of a final, nonappealable order from the Commission approving the terms and conditions of the REPA and authorizing Purchaser to recover all of the jurisdictional costs associated with the REPA through Kentucky Power Company Base Rates.
- <u>Delay Damages</u>. Customary for transactions of this type.
- <u>Termination Right of Seller before CSD</u>. If Purchaser is unable to obtain by September 15, 2010 a final, non-appealable order from the Commission approving the terms and conditions of the REPA and authorizing Purchaser to recover all of the jurisdictional costs associated with the REPA through Kentucky Power Company Base Rates, Seller may, by notice to the Purchaser delivered no later than September 30, 2009, terminate the REPA.
- <u>Termination Right of Purchaser before CSD</u>. If Purchaser is unable to obtain by September 15, 2010 a final, non-appealable order from the Commission

approving the terms and conditions of the REPA and authorizing Purchaser to recover all of the jurisdictional costs associated with the REPA through Kentucky Power Company Base Rates, Purchaser may, by notice to Seller on or prior to September 30, 2010, terminate the REPA.

- <u>Representations and Warranties</u>. Customary for transactions of this type.
- <u>Sale and Purchase of Renewable Energy Products</u>. During the Term of the REPA, Seller will generate, deliver and sell to Purchaser, Purchaser's Contract Capacity Share (100 MW) from the Lee DeKalb Wind Energy Center ("<u>Purchaser's Share</u>") of all Renewable Energy generated by the Facility, together with all associated Capacity, Beneficial Environmental Interests and Ancillary Services (collectively, "<u>Renewable Energy Products</u>").
- <u>Purchaser's Right to Curtail Renewable Energy</u>. Purchaser has the right from time to time to invoke an Economic Curtailment or, upon receipt of notice thereof, a Reliability Curtailment that is directed by the Transmission Operator or Interconnection Provider. In case of Economic Curtailment, Purchaser must provide Seller with notice of the curtailment and Purchaser's Share of Renewable Energy will be reduced to zero (0). In case of Reliability Curtailment, Purchaser must provide Seller with notice of the curtailment and the amount of Renewable Energy, if any, that may continue to be delivered to Purchaser during such Reliability Curtailment.
- <u>Compensation for Curtailments</u>. Purchaser is required to compensate Seller for any periods of Economic Curtailment, based on the amount of energy that Seller would have delivered given the prevailing wind conditions and other factors during the curtailment period. No compensation is owed during periods of Reliability Curtailment.
- <u>Operation</u>. Seller will operate the Facility consistent with Good Utility Practices, including compliance with permits and laws, and the Contract Administration Procedures developed with Purchaser.
- <u>Delivery</u>. Seller is responsible for all costs required to deliver Purchaser's Share of Renewable Energy from the Facility to the Point of Delivery. Purchaser is responsible for all costs required to receive Purchaser's Share of Renewable Energy at the Point of Delivery and deliver such energy to points beyond the Point of Delivery.
- <u>Scheduling Arrangements</u>. Seller is responsible for all scheduling of the Renewable Energy via PJM's eSchedule system. Purchaser is responsible for (1) all costs related to delivery of Purchaser's Share of Renewable Energy at and from the Point of Delivery and (2) for all scheduling, imbalance and congestion costs that are associated with Purchaser's Share, excluding any such costs arising from the failure by Seller to curtail deliveries in connection with a Reliability

Curtailment or Economic Curtailment. Seller is responsible (1) for all costs related to delivery of the Renewable Energy to the Point of Delivery and (2) for all scheduling, imbalance, congestion or other costs incurred by Purchaser as a result of the failure by Seller to curtail deliveries in connection with a Reliability Curtailment or Economic Curtailment.

- <u>Beneficial Environmental Interest Certification</u>. Seller is responsible for subscribing to and providing reports to the Generation Attribute Tracking System (GATS) and delivering GATS Certificates associated with the Renewable Energy delivered to Purchaser.
- <u>Interconnection Facilities</u>. Seller has entered into a separate and free-standing Interconnection Agreement with the Interconnection Provider and is responsible for constructing, operating and maintaining all interconnection facilities thereunder.
- <u>Meters</u>. Customary for transactions of this type.
- <u>Taxes and Tax Credits</u>. Seller is solely responsible for all taxes relating to the Facility, and for taxes incurred by reason of the sale and delivery of Renewable Energy to Purchaser at the Point of Delivery. Purchaser is responsible for all taxes relating to the Renewable Energy Credits, and for taxes associated with the Renewable Energy upon and after receipt at the Point of Delivery. Seller will receive all tax credits from the ownership and operation of the Facility.
- <u>Events of Default of Seller</u>. Customary for transactions of this type.
- Events of Default of Purchaser. Customary for transactions of this type.
- <u>Remedies for Default</u>. Customary for transactions of this type including a termination right in the event a Default remains uncured beyond the applicable period(s).
- <u>Seller Security Fund</u>. Seller will provide a Security Fund as credit support for damages due upon Seller's failure to achieve COD by the Commercial Operation Milestone, damages due upon Seller's failure to maintain the Guaranteed Availability during an applicable period, or damages resulting from a Seller Event of Default.
- <u>Damages Payable in the Event of Termination</u>. Customary for transactions of this type.
- <u>Indemnification</u>. Customary for transactions of this type.
- <u>Fines</u>. Customary for transactions of this type.

- <u>Limitation of Liability, Remedies, and Damages</u>. Customary for transactions of this type.
- <u>Assignment</u>. Customary for transactions of this type.
- <u>Confidentiality</u>. Customary for transactions of this type.
- <u>Governing Law/Venue</u>. The interpretation and performance of the REPA is governed under the laws of the State of New York.
- <u>Dispute Resolution</u>. Customary for transactions of this type.

### EXHIBIT A

#### **ADDITIONAL TERMS**

### PRICING

### CONTRACT RATE (\$ Per MWh)

Premium Peak Peak Off-Peak

\$**7.55** / MWh\* \$**7.55** / MWh\*

\$ / MWh\*

Weekdays: Jan/Feb/Jul/Aug/Dec Weekdays: Mar/Apr/May/Jun/Sep/Oct/Nov Nights, Weekends & NERC Holidays: Jan - Dec

\* Above prices escalates at 2.25% per year beginning 1/1/2012

### EXHIBIT JFG-2

### RENEWABLE ENERGY PURCHASE AGREEMENT FOR WIND ENERGY RESOURCES

### BETWEEN

### FPL ENERGY ILLINOIS WIND, LLC

### AND

### **KENTUCKY POWER COMPANY**

### DECEMBER 21, 2009

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### RENEWABLE ENERGY PURCHASE AGREEMENT BETWEEN FPL ENERGY ILLINOIS WIND, LLC AND KENTUCKY POWER COMPANY

This Renewable Energy Purchase Agreement (the "REPA") is made this 21<sup>st</sup> day of December, 2009, by and between FPL ENERGY ILLINOIS WIND, LLC ("Seller"), a Delaware limited liability company, with a principal place of business at 700 Universe Boulevard, Juno Beach, Florida 33408, and KENTUCKY POWER COMPANY ("Purchaser"), a Kentucky corporation, with a principal place of business at c/o American Electric Power Service Corporation, 1 Riverside Plaza, Columbus, Ohio 43215-2355. Seller and Purchaser are hereinafter referred to individually as a "Party" and collectively as the "Parties".

WHEREAS Seller is developing and constructing and will own and operate a renewable electric generating facility with an expected total name plate capacity of approximately 217.5 MW, and which is further defined below as the "Facility"; and

WHEREAS the Facility is located at Lee and Dekalb Counties, Illinois, and will interconnect with the Transmission Provider's System; and

WHEREAS Seller desires to sell and deliver to Purchaser at the Point of Delivery Purchaser's Contract Capacity Share of the Renewable Energy Products, and Purchaser desires to buy the same from Seller; and

WHEREAS Purchaser has accepted Seller's offer to sell such Renewable Energy Products in accordance with the terms and conditions set forth in this REPA.

NOW THEREFORE, in consideration of the mutual covenants herein contained, the sufficiency and adequacy of which are hereby acknowledged, the Parties agree to the following:

### ARTICLE 1 DEFINITIONS AND RULES OF INTERPRETATION

#### 1.1 Rules of Construction.

The capitalized terms listed in this Article shall have the meanings set forth herein whenever the terms appear in this REPA, whether in the singular or the plural or in the present or past tense. Other terms used in this REPA but not listed in this Article shall have meanings as commonly used in the English language and, where applicable, in Good Utility Practice. Words not otherwise defined herein that have well known and generally accepted technical or trade meanings are used herein in accordance with such recognized meanings. In addition, the following rules of interpretation shall apply:

(A) The masculine shall include the feminine and neuter.

(B) References to "Articles," "Sections," or "Exhibits" shall be to articles, sections, or exhibits of this REPA.

(C) The Exhibits attached hereto are incorporated in and are intended to be a part of this REPA; provided, that in the event of a conflict between the terms of any Exhibit and the terms of this REPA, the terms of this REPA shall take precedence.

(D) This REPA was negotiated and prepared by both Parties with the advice and participation of counsel. The Parties have agreed to the wording of this REPA and none of the provisions hereof shall be construed against one Party on the ground that such Party is the author of this REPA or any part hereof.

(E) The Parties shall act reasonably and in accordance with the principles of good faith and fair dealing in the performance of this REPA. Unless expressly provided otherwise in this REPA, (i) where the REPA requires the consent, approval, or similar action by a Party, such consent, approval or similar action shall not be unreasonably withheld, conditioned or delayed, and (ii) wherever the REPA gives a Party a right to determine, require, specify or take similar action with respect to a matter, such determination, requirement, specification or similar action shall be reasonable.

(F) Each reference in this REPA to any agreement or document (including those set forth electronically on an internet web site) or a portion or provision thereof shall be construed as a reference to the relevant agreement or document as amended, supplemented or otherwise modified from time to time.

(G) Each reference in this REPA to applicable laws and to terms defined in, and other provisions of, applicable laws (including those set forth electronically on an internet web site) shall be references to the same (or a successor to the same) as amended, supplemented or otherwise modified from time to time.

(H) Each reference in this REPA to a Person includes its successors and permitted assigns and, in the case of a Governmental Authority, any Person or Persons succeeding, in whole or in part, to its functions and capacities.

(I) In this REPA, the words "include," "includes" and "including" are to be construed as being at all times followed by the words "without limitation."

### 1.2 Interpretation with Interconnection Agreement.

The Parties recognize that Seller will enter into a separate Interconnection Agreement with the Interconnection Provider.

(A) The Parties acknowledge and agree that the Interconnection Agreement shall be a separate and free-standing contract and that the terms of this REPA are not binding upon the Interconnection Provider.

(B) Notwithstanding any other provision in this REPA, nothing in the Interconnection Agreement shall alter or modify Seller's or Purchaser's rights, duties and obligations under this REPA. This REPA shall not be construed to create any rights between Seller and the Interconnection Provider.

(C) Seller expressly recognizes that, for purposes of this REPA, the Interconnection Provider shall be deemed to be a separate entity and separate contracting party whether or not the Interconnection Agreement is entered into with Purchaser or an Affiliate of Purchaser.

### 1.3 Interpretation of Arrangements for Electric Supply to the Facility.

The Parties recognize that this REPA does not provide for the supply of any electric service by Purchaser to Seller or to the Facility and Seller must enter into separate arrangements for the supply of electric services to the Facility, including the supply of turbine unit start-up and shutdown house power and energy.

(A) The Parties acknowledge and agree that the arrangements for the supply of electric services to the Facility shall be separate and free-standing arrangements and that the terms of this REPA are not binding upon the supplier of such electric services.

(B) Notwithstanding any other provision in this REPA, nothing in the arrangements for the supply of retail electric services to the Facility shall alter or modify Seller's or Purchaser's rights, duties and obligations under this REPA. This REPA shall not be construed to create any rights between Seller and the supplier of such retail electric services.

(C) Seller expressly recognizes that, for purposes of this REPA, the supplier of retail electric services to the Facility shall be deemed to be a separate entity and separate contracting party whether or not the arrangements for the supply of retail electric services to the Facility is entered into with Purchaser or an Affiliate of Purchaser.

### 1.4 <u>Definitions</u>.

The following terms shall have the meanings set forth below when used herein:

"Abandonment" means the permanent and complete cessation by Seller prior to the Commercial Operation Date of the design, construction, testing and inspection of the Facility, but only if such cessation is not caused by or attributable to an Event of Default of, or request by, Purchaser, an Emergency, a Forced Outage, a Scheduled Outage/Derating or an event of Force Majeure.

"Affiliate" of any named person or entity means any other person or entity that controls, is under the control of, or is under common control with, the named entity. The term "control" (including the terms "controls", "under the control of" and "under common control with") means the possession, directly or indirectly, of the power to direct or cause the direction of the management of the policies of a person or entity, whether through ownership interest, by contract or otherwise.

"Ancillary Services" means voltage support, regulation and frequency response services, energy imbalance services, automatic generating control, spinning reserve, non-spinning reserve and replacement reserve, reactive power and any other services that support the transmission of capacity and energy or the reliable operation of the Transmission Provider's transmission system, to the extent included as ancillary services in the Transmission Operator's open access transmission tariff, and in each case, to the extent commonly sold or saleable and to the extent that the assets comprising the Facility are Eligible to provide such services under normal operating conditions.





"Beneficial Environmental Interests" means all Non-Power Attributes associated in any way, directly or indirectly, with the Facility and all RECs associated with such Non-Power Attributes, excluding (i) investment tax credits, and any other federal or state tax credits, deductions, or exemptions applicable to Seller or any of its Affiliates based on its ownership or operation of the Facility or on the production and sale of Renewable Energy Products to the Purchaser, or (ii) federal or state cash payments, grants under Section 1603 of the American Recovery and Reinvestment Act of 2009 or outright grants of money relating to the ownership, development, construction, expansion, operation, maintenance or financing of the Facility.

"Business Day" means any calendar day that is not a Saturday, a Sunday, or a NERC Holiday.



"Capacity" means the output level, expressed in MW, that the Facility, or the components of equipment thereof, is capable, as of a given moment, of continuously producing and making available at the Point of Delivery, taking into account the operating condition of the equipment at that time, the auxiliary loads and other relevant factors. Capacity includes all installed capacity and unforced capacity attributed to the Facility by the Transmission Operator, the RFC, any Governmental Authority, or that is commonly sold or saleable to third parties.

"Capacity Deficiency" means, at any time, the amount by which the Committed Capacity exceeds the nameplate capacity of the Commissioned Wind Turbines.

"Cash" shall have the meaning set forth in Section 11.1(C)(2).

"Clock Hour" means sixty-minute increments commencing at the top of the hour on the clock (i.e., 12 o'clock)

"Close of the Business Day" means 5:00 PM EPT on a Business Day.

"Commercial Operation" means the period beginning on the Commercial Operation Date and continuing through the Term of this REPA.

"Commercial Operation Date" or "COD" means the date following the date on which Seller provides written notice to Purchaser that all of the milestones specified in Section 4.7 have occurred or otherwise been satisfied pursuant to this Agreement.

"Commercial Operation Milestone" means September 30, 2010.

"Commission" means the Kentucky Public Service Commission.

"Commissioned" means, with respect to any Wind Turbine, that the requirements of Section 4.7 as they apply to such Wind Turbine have been satisfied.

"Committed Capacity" means 100 MW.

"Communications Equipment" means the communication circuits from the Facility to Purchaser for the purpose of telemetering, supervisory control and data acquisition, transmittal of real time data as described in Exhibit H and voice communications as reasonably required by Purchaser.



"Consent and Agreement" shall have the meaning set forth in Section

"Contract Administration Committee" means one representative each from Purchaser and Seller pursuant to Section 10.3.

"Contract Administration Procedures" means those procedures developed pursuant to Section 10.3.

"Contract Capacity Share" means a ratio equal to 100 MW divided by the Facility Capacity in MW.

"Contract Rate" means the applicable rate set forth in Exhibit C.

"Contract Start Date" means the earlier of (i) October 1, 2010 and (ii) the third (3<sup>rd</sup>) Business Day after Seller's receipt of notice that Purchaser has satisfied or waived the condition in Section 6.1.

"Contract Year" means each calendar year of the Term, whether such calendar year is comprised of 365 or 366 Days, commencing with the first calendar year subsequent to the year in which the Contract Start Date occurs, provided that the last Contract Year of the Term may be less than a full calendar year if this REPA is terminated or expires prior to December 31 of such calendar year.

"Control Area" means the system of electrical generation, distribution, and transmission facilities within which generation is regulated in order to maintain interchange schedules with other such systems.

"Day" means a calendar day.

"Delay Damages" shall have the meaning set forth in Section 4.1.

"Delay Damages Commencement Date" shall mean the date forty-five (45) Days after the Commercial Operation Milestone.

19.2.

"Delivery Period" shall mean the period that commences on at 0000 hours on the Contract Start Date and continues through the remainder of the Term.

"Deviation" shall have the meaning set forth in Section 5.6(B)

"Dispute" shall have the meaning set forth in Section 13.9(A).

"Dispute Notice" shall have the meaning set forth in Section 13.9(A).

"Electric Metering Device(s)" means all meters, metering equipment, and data processing equipment used to measure, record, or transmit data relating to the Renewable Energy from the Facility. Electric Metering Devices does not include the metering current transformers or the metering voltage transformers.

"Emergency" means an emergency condition as defined under the Interconnection Agreement or the OATT.

"Energy" means three-phase, 60-cycle alternating current electric energy, expressed in MWh.

"Environmental Contamination" means the introduction or presence of Hazardous Materials at such levels, quantities or location, or of such form or character, as to constitute a violation of federal, state or local laws or regulations, and present a material risk under federal, state or local laws and regulations that the Site will not be available or usable for the purposes contemplated by this REPA.

"EPT" means Eastern Prevailing Time.

"Event of Default" shall have the meaning set forth in Article 12.

"Facility" means Seller's proposed electric generating facility and Seller's Interconnection Facilities, as identified and described in Article 3 and Exhibit B to this REPA, including all of the following, the purpose of which is to produce renewable wind power and deliver such wind power to the Point of Delivery: Seller's equipment, buildings, all of the generation facilities, including generators, turbines, step-up transformers, output breakers, facilities necessary to connect to the Point of Delivery, protective and associated equipment, improvements, and other tangible assets, contract rights, easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation, and maintenance of the electric generating facility that produces the Renewable Energy subject to this REPA, any and all additions, replacements or modifications thereof.

"Facility Capacity" means the Capacity capable of being generated from the Facility based on the aggregate nameplate rating of all of the Wind Turbines comprising the Facility.

"Facility Debt" means the obligations of Seller to any lender or tax equity investor pursuant to the Financing Documents, including principal of, premium and interest on indebtedness, fees, expenses or penalties, amounts due upon acceleration, prepayment or restructuring, swap or interest rate hedging breakage costs and any claims or interest due with respect to any of the foregoing.

"Facility Debt Representative" means any single trustee or agent on behalf of the Facility Lenders or such other single representative designated in writing by Seller.

"Facility Lenders" means any and all Persons or successors in interest thereof (A) lending money or extending credit (whether directly to Seller or to an Affiliate of Seller) as follows: (i) for the construction, interim or permanent financing or refinancing of the Facility; (ii) for working capital or other ordinary business requirements of the Facility (including the maintenance, repair, replacement or improvement of the Facility); (iii) for any development financing, bridge financing, credit support, credit enhancement or interest rate protection in connection with the Facility; (iv) for any capital improvement or replacement related to the Facility; or (v) for the purchase of the Facility and the related rights from Seller; and/or (B) participating (directly or indirectly) as an equity investor in the Facility; and/or (C) any lessor under a lease finance arrangement relating to the Facility.

"Federal Funds Effective Rate" means the rate for that day opposite the caption "Federal Funds (Effective)" as set forth in the weekly statistical release designated as H. 15 (519), or any successor publication, published by the Board of Governors of the Federal Reserve System.

"FERC" means the Federal Energy Regulatory Commission.

"Financing Documents" means the loan and credit agreements, notes, bonds, indentures, security agreements, lease financing agreements, mortgages, deeds

of trust, interest rate exchanges, swap agreements and other documents relating to the development, bridge, tax equity, construction or permanent debt financing for the Facility, including any credit enhancement, credit support, working capital financing, letter of credit facilities, and all such documents or agreements related to any refinancing or replacement of any of the foregoing, and any and all amendments, modifications, or supplements to the foregoing that may be entered into from time to time at the discretion of Seller in connection with development, construction, ownership, leasing, operation or maintenance of the Facility.

"Force Majeure" shall have the meaning set forth in Article 14.

"Forced Outage" means any condition at the Facility that requires immediate removal of the Facility, or some part thereof, from service, another outage state, or a reserve shutdown state.

"GATS" means the Generation Attribute Tracking System administered by PJM Environmental Information Services, Inc. ("PJM EIS") and providing environmental and emissions attributes reporting and tracking services to its subscribers in support of renewable portfolio standards and other information disclosure requirements that may be implemented by Governmental Authorities. GATS tracks generation attributes and the ownership of the attributes as they are traded or used to meet standards of Governmental Authorities. GATS includes any successor tracking system or systems with the same or similar purpose administered by PJM EIS.

"GATS Certificates" means certificates recognized by GATS and associated with the generation of electricity from the Facility.

"Good Utility Practice(s)" means the practices, methods, and acts (including the practices, methods, and acts engaged in or approved by a significant portion of the wind power generation industry, the Transmission Operator or NERC) that, at a particular time, in the exercise of reasonable judgment in light of the facts known or that should reasonably have been known at the time a decision was made, would have been expected to accomplish the desired result in a manner consistent with law, regulation, permits, codes, standards, reliability, safety, environmental protection, economy, and expedition. Good Utility Practices are not intended to be the optimal practice, method or act to the exclusion of all others, but rather are intended to be any of the practices, methods or acts generally accepted in the region in which the Facility is located. With respect to the Facility, Good Utility Practice(s) includes taking reasonable steps to ensure that:

(A) commercially reasonable levels of equipment, materials, resources, and supplies, including spare parts inventories, are available to meet the Facility's needs;

(B) sufficient operating personnel are available to operate the Facility on a 24 hour basis in accordance with commercially reasonable wind industry operating practices for wind power generation equipment and are adequately

experienced and trained and licensed as necessary to operate the Facility properly, efficiently, and in coordination with Purchaser and are capable of responding to reasonably foreseeable emergency conditions whether caused by events on or off the Site;

(C) preventive, routine, and non-routine maintenance and repairs are performed on a commercially reasonable basis that enables reliable, long-term and safe operation, and are performed by knowledgeable, trained, and experienced personnel utilizing proper equipment and tools;

(D) appropriate and commercially reasonable monitoring and testing are performed to determine that equipment is functioning as designed; and

(E) equipment is not operated in a reckless manner or in a manner unsafe to workers, the general public, or the interconnected system or contrary to environmental laws, permits or regulations or without regard to defined limitations such as, flood conditions, safety inspection requirements, operating voltage, current, voltampere reactive (VAr) loading, frequency, rotational speed, polarity, synchronization, or control system limits.

"Governmental Authority" means any federal, state, local or municipal governmental body; any governmental, quasi-governmental, regulatory or administrative agency, commission, body or other authority exercising or entitled to exercise any administrative, executive, judicial, legislative, policy, regulatory or taxing authority or power; or any court or governmental tribunal.

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"Hazardous Materials" means any substance, material or particulate matter that is regulated by any local governmental authority, any applicable State, or the United States of America, as an environmental pollutant or dangerous to public health, public welfare, or the natural environment including protection of nonhuman forms of life, land, water, groundwater, and air, including any material or substance that is (i) defined as "toxic," "polluting," "hazardous waste," "hazardous material," "hazardous substance," "extremely hazardous waste," "solid waste" or "restricted hazardous waste" under any provision of local, state, or federal law; (ii) petroleum, including any fraction, derivative or additive; (iii) asbestos; (iv) polychlorinated biphenyls; (v) radioactive material; (vi) designated as a "hazardous substance" pursuant to the Clean Water Act, 33 U.S.C. §1251 et seq. (33 U.S.C. §1251); (vii) defined as a "hazardous waste" pursuant to the Resource Conservation and Recovery Act, 42 U.S.C. §6901 et seq. (42 U.S.C. §6901); (viii) defined as a "hazardous substance" pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act, 42 U.S.C. §9601 et seq. (42 U.S.C. §9601); (ix) defined as a "chemical substance" under the Toxic Substances Control Act, 15 U.S.C. §2601 et seq. (15 U.S.C. §2601); or (x) defined as a pesticide under the Federal Insecticide, Fungicide, and Rodenticide Act. 7 U.S.C. §136 et seq. (7 U.S.C. §136).

"Indemnified Party" shall have the meaning set forth in Article 17.

"Indemnifying Party" shall have the meaning set forth in Article 17.

"Interconnection Agreement" means the separate generation interconnection agreement between Seller and the Interconnection Provider for interconnection of the Facility to the Transmission Provider's System, as such agreement may be amended from time to time.

"Interconnection Facilities" means the facilities necessary to connect Transmission Provider's System to the Point of Delivery, including breakers, bus work, bus relays, and associated equipment installed by the Interconnection Provider for the direct purpose of interconnecting the Facility, along with any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of such facilities. Arrangements for the installation and operation of the Interconnection Facilities shall be governed by the Interconnection Agreement.

"Interconnection Provider" means the Transmission Operator or any Transmission Provider responsible for the operation of the Interconnection Facilities and other equipment and facilities with which the Facility interconnects at the Point of Delivery.

"Issuer" means a financial institution or company reasonably acceptable to Purchaser and Seller.

"Locational Marginal Price" or "LMP" means for each hour of a Day, the day-ahead or real-time locational marginal price, as specified herein, expressed in dollars per MWh at the Delivery Point for such hour, as determined by PJM in accordance with the OATT and other applicable PJM Manuals and Agreements.

"Minimum Availability Period" shall have the meaning set forth in Section

12.1(F).

"Moody's" means Moody's Investors Service.

"MW" means megawatt, an amount of power equal to 1,000 kilowatts or 1,000,000 watts.

"MWh" means megawatt-hour, an amount of power equal to 1,000 kilowatt-hours or 1,000,000 watt-hours.

"NERC" means the North American Electric Reliability Corporation.

"NERC Holiday" means every Day other than a Saturday or Sunday which the NERC declares to be a holiday for power scheduling purposes.

"Network Resource" shall have the meaning set forth in the OATT.
"Non-Power Attributes" means any characteristic of the Facility related to its benefits to the environment, including any avoided, reduced, displaced or off-set emissions of pollutants to the air, soil or water such as sulfur dioxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), mercury (Hg), particulates, and any other pollutant that is now or may in the future be regulated under federal, state or local pollution control laws, regulations or ordinances or any voluntary rules, guidelines or programs; and further include any avoided emissions of carbon dioxide (CO<sub>2</sub>) and any other greenhouse gas (GHG) that contributes to the actual or potential threat of altering the Earth's climate by trapping heat in the atmosphere. Non-Power Attributes do not include (i) investment tax credits, and any other federal or state tax credits, deductions, or exemptions applicable to Seller or any of its Affiliates based on its ownership or operation of the Facility or on the production and sale of Renewable Energy Products to the Purchaser, or (ii) federal or state cash payments, grants under Section 1603 of the American Recovery and Reinvestment Act of 2009 or outright grants of money relating to the ownership, development, construction, expansion, operation, maintenance or financing of the Facility.

"OATT" means the FERC filed Open Access Transmission Service Tariff of the Transmission Operator, as it may be amended and approved by FERC.

"Off Peak Hours" means the hours from hour ending 0100 through hour ending 0700 and the hour ending 2400 Monday through Friday; and hours ending 0100 through hour ending 2400 Saturday, Sunday and NERC Holidays. All times will be in EPT in accordance with applicable PJM requirements.

"Operating Records" means operating logs, blueprints for construction, operating manuals, all warranties on equipment, and all documents, whether in printed or electronic format, that the Seller uses or maintains for the operation of the Facility.

"Peak Hours" means the hours from the hour ending 0800 through the hour ending 2300, Monday through Friday, for the months March, April, May, June, September, October and November, excluding NERC Holidays. All times will be in EPT in accordance with applicable PJM requirements.

"Penalties" means penalties imposed by Governmental Authorities.

"Person" means an individual, corporation, limited liability company, voluntary association, joint stock company, business trust, partnership, Governmental Authority, or other entity.

"PJM" means PJM Interconnection, LLC.

"PJM Manuals and Agreements" means, collectively, (i) all instructions, rules, procedures and guidelines established by PJM, (ii) all documents and protocols issued by PJM and (iii) all agreements to which Seller, Purchaser or any Affiliates of Purchaser, on the other hand, and PJM, on the other hand, are parties, either bilaterally or in concert with other entities, as may be in effect from time to time, in each case for the operation, planning, and accounting requirements of PJM and the PJM Interchange Energy Market, including the OATT.

"Point of Delivery" means the electric interconnection point, as shown on Exhibit G, at which point the quantities of Renewable Energy and Ancillary Services delivered are recorded and measured by the Interconnection Provider's revenue meters.

"Premium Peak Hours" means the hours from the hour ending 0800 through the hour ending 2300, Monday through Friday, for the months January, February, July, August and December, excluding NERC Holidays. All times will be in EPT in accordance with applicable PJM requirements.

"Proration Factor" means, if the Contract Year in which this REPA is terminated or expires is less than a full calendar year, then, with respect to such Contract Year, an amount equal to a fraction, the numerator of which is the number of Days falling within the Delivery Period in such Contract Year, and the denominator of which is 365 or 366, as applicable to the calendar year that includes such Contract Year.

"Purchaser Security Fund" means the fund that Purchaser is required to establish and maintain, pursuant to Section 11.2, as security for Purchaser's performance under this REPA.

"Reliability Curtailment" means any curtailments of delivery of Renewable Energy resulting from (i) an Emergency, (ii) any other order or directive of the Interconnection Provider or the Transmission Operator, which order or directive may be directly communicated to Seller by the Interconnection Provider, the Transmission Provider or the Transmission Operator or indirectly to Seller by Purchaser promptly upon receipt thereof, (iii) Seller's failure to maintain in full force and effect any permit, consent, license, approval, or authorization from any Governmental Authority required by law to construct or operate the Facility, or (iv) Seller's operation of the Facility by Seller in a manner inconsistent with Good Utility Practices.

"Renewable Energy" means the net Energy generated exclusively by the Facility from wind and delivered to the Point of Delivery as measured by the Electric Metering Devices installed pursuant to Section 5.4.

"Renewable Energy Credit" or "REC" means any credits, credit certificates, rights, powers, privileges or similar items in existence now or as made available after the execution of this Agreement that is related to the Non-Power Attributes of the Facility such as those for greenhouse gas reduction, green certificates or the generation of green power or renewable energy, or for satisfying renewable portfolio standards or similar renewable energy mandates, or offsets of emissions of greenhouse gases, in each case created by any governmental agency and/or independent certification board or group generally recognized in the electric power generation industry, and generated by or associated with the Facility, but specifically excluding (i) investment tax credits, and any other federal or state tax credits, deductions, or exemptions applicable to Seller or any of its Affiliates based on its ownership or operation of the Facility or on the production and sale of Renewable Energy Products to the Purchaser and (ii) cash payments, grants under Section 1603 of the American Recovery and Reinvestment Act of 2009 or outright grants of money relating in any way to the Facility. Without limiting the generality of the foregoing definitions, RECs shall include GATS Certificates.

"Renewable Energy Products" means, collectively, the Renewable Energy and Ancillary Services produced by the Facility and all of the associated Capacity and Beneficial Environmental Interests.

"REPA" means this Renewable Energy Purchase Agreement between Seller and Purchaser.

"Replacement Energy Costs" means, for any Calculation Period, Purchaser's average cost of replacement Renewable Energy, or Energy plus replacement Renewable Energy Credits, over such Calculation Period, calculated in accordance with part (d) of Exhibit I.



"RFC" means the Reliability*First* Corporation, one of the eight regional reliability councils approved by the North American Electric Reliability Corporation (NERC).

"Scheduled Outage/Derating" means a planned interruption or reduction of the Facility's generation by Seller that both (i) has been coordinated in advance with Purchaser, with a mutually agreed start date and duration, and (ii) is required for inspection, or preventive or corrective maintenance.

"Seller's Merchant Capacity" means the portion of the Facility Capacity not committed to Purchaser under this REPA or to a Third Party Purchaser under a Third Party Power Purchase Agreement.

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"Seller Security Fund" means the fund that Seller is required to establish and maintain, pursuant to Section 11.1, as security for Seller's performance under this REPA.

"Seller's Interconnection Facilities" means the equipment between the high side disconnect of the step-up transformer and the Point of Delivery, including all related relaying protection and physical structures as well as all transmission facilities required to access the Transmission Provider's System at the Point of Delivery, along with any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of such facilities. On the high side of the step-up transformer it includes Seller's load control equipment as provided for in the Interconnection Agreement. This equipment is located within the Site and is conceptually depicted in Exhibit B to this REPA.

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"Site" means the parcel or parcels of real property on which the Facility will be constructed and located, including any easements, rights of way, surface use agreements and other interests or rights in real estate reasonably necessary for the construction, operation and maintenance of the Facility. The Site is more specifically described in Section 3.2 and Exhibit B to this REPA.

"Standard & Poor's" or "S&P" means Standard & Poor's, a division of the McGraw-Hill Companies.

"Tax" or "Taxes" shall have the meaning set forth in Section 20.2

"Term" means the period of time during which this REPA shall remain in full force and effect, and which is further defined in Article 2.

"Third Party Power Purchase Agreement" means any written agreement between Seller and a Person other than Purchaser for the purchase of Renewable Energy.

"Third Party Purchaser" means any Person that is a party to, and purchases Renewable Energy under, a Third Party Power Purchase Agreement.



"Transmission Operator" means PJM or any successor independent system operator, regional transmission operator or other transmission operator from time to time having authority to control the transmission Control Area to which the Facility is interconnected.

"Transmission Provider" means any Person or Persons that owns, operates or controls facilities used for the transmission of electrical energy from the Facility in interstate commerce.

"Transmission Provider's System" means the contiguously interconnected electric transmission facilities, including Interconnection Provider's interconnection facilities, over which the Transmission Provider has rights to provide for the bulk transmission of capacity and energy from the Point of Delivery.

"Uncommitted Capacity" means the portion of the Facility Capacity in excess of Purchaser's Contract Capacity Share of the Facility Capacity.

"Wind Turbines" means those generating devices powered by the wind that are included in the Facility.

#### ARTICLE 2 TERM AND TERMINATION

This REPA shall become effective as of the date of its execution, and shall remain in full force and effect until the twentieth (20<sup>th</sup>) anniversary of the last day of the month in which the Contract Start Date occurs, subject to any early termination or extension provisions set forth herein; provided, however, that Seller's obligation to deliver and Purchaser's obligation to purchase Renewable Energy Products shall not commence until the beginning of the Delivery Period except as specifically provided herein. Applicable provisions of this REPA shall continue in effect after termination, including early termination, to the extent necessary to enforce or complete the duties, obligations or responsibilities of the Parties arising prior to termination and, as applicable, to provide for: final billings and adjustments related to the period prior to termination, repayment of any money due and owing to either Party pursuant to this REPA, repayment of principal and interest associated with security funds, the indemnifications specified in this REPA, limitations of liability, and the resolution of disputes between the Parties.

#### ARTICLE 3 FACILITY DESCRIPTION

#### 3.1 <u>Summary Description</u>.

Seller shall construct, own, operate, and maintain the Facility, which is expected to consist initially of one hundred forty-five (145) GE 1.5 XLE Wind Turbines, each rated at 1,500 kW and associated equipment having an initial nameplate capacity of approximately 217.5 MW. Exhibit B to this REPA provides a detailed description of the Facility, including identification of the equipment and components, which make up the

Facility. Seller shall have the right, in its sole discretion, to install additional Wind Turbines at the Facility, provided, however, that the aggregate nominal or "nameplate" MW rating of the Wind Turbines comprising the Facility will not exceed 240 MW at any time during the Term. Any additional wind turbines installed on the Site in excess of such 240 MW shall not comprise the Facility or share the same Point of Delivery or revenue meter used in connection with this REPA.

# 3.2 Location.

The Facility shall be located on the Site and shall be identified as Seller's Lee-Dekalb Wind Energy Center. The Facility is located in Lee and Dekalb Counties, Illinois. A scaled map that identifies the Site, the location of the Facility at the Site, the location of the Point of Delivery and the location of the important ancillary facilities and Interconnection Facilities, is included in Exhibit B to this REPA.

# 3.3 <u>General Design of the Facility</u>.

Seller shall construct the Facility according to Good Utility Practice(s), the Interconnection Agreement and rules of the Transmission Operator, including the PJM Manuals and Agreements. In addition to the requirements of the Interconnection Agreement, the design of the Facility shall at all times include:

(A) the required panel space and 125V DC battery supplied voltage to accommodate Purchaser's metering, generator telemetering equipment and Communications Equipment;

(B) the Communications Equipment; and

(C) metering accuracy current transformers and voltage transformers located at the Point of Delivery (or some other point mutually agreed to by the Parties) as required to connect to the Electric Metering Devices.

#### ARTICLE 4 COMMERCIAL OPERATION

# 4.1 <u>Commercial Operation</u>.

Subject to the satisfaction of the conditions set forth in Section 6.2 and extension as otherwise specifically provided for herein, the Facility shall achieve the Commercial Operation Date no later than the Commercial Operation Milestone. Subject to the limitations provided for in the immediately succeeding sentence, in the event that the Facility does not achieve the Commercial Operation Date on or before the Delay Damages Commencement Date, Seller shall pay Purchaser as liquidated damages per MW of Capacity Deficiency per Day for each Day after the Delay Damages Commencement Date until the Commercial Operation Date ("Delay Damages").



# 4.2 [Intentionally Deleted].

# 4.3 <u>Site Report</u>.

Seller shall provide Purchaser, on or before sixty (60) days after the execution of this REPA, with a copy of the report summarizing its Phase I environmental investigation of the Site, together with any data or information generated pursuant to such investigation.

# 4.4 [Intentionally Deleted].

# 4.5 <u>Progress Reports</u>.

Commencing upon the execution of this REPA, Seller shall submit to Purchaser, within the first fifteen (15) Days of each calendar month until the Commercial Operation Date is achieved, reports regarding the progress of development and construction of the Facility in a form reasonably satisfactory to Purchaser. These progress reports shall describe the status of the development and construction of the Facility as of the end of the preceding month, including (a) a description of the progress of development and construction schedule and (c) an estimate of the Commercial Operation Date. Commencing upon the execution of this REPA, Seller will additionally advise Purchaser weekly on the status of Wind Turbine Commissioning until the Commercial Operation Date is achieved.

#### 4.6 Purchaser's Rights During Construction.

Upon reasonable prior written notice, Purchaser shall have the right to monitor the construction, start-up and testing of the Facility during normal business operating hours, and Seller shall comply with all reasonable requests of Purchaser with respect to the monitoring of these events, provided, however, that Purchaser shall not unreasonably interfere with or disrupt the activities of the Seller. Seller shall cooperate in such physical inspections of the Facility as may be reasonably requested by Purchaser during and after completion of construction. All persons visiting the Facility on behalf of Purchaser shall comply with all of Seller's applicable safety and health rules and requirements. Purchaser's technical review and inspection of the Facility shall not be construed as endorsing the design thereof nor as any warranty of safety, durability, or reliability of the Facility.

# 4.7 <u>Commercial Operation Milestones</u>.

Seller shall use commercially reasonable efforts to achieve the following milestones within a reasonable time after the effectiveness of this REPA:

(A) Wind Turbines with an aggregate nameplate capacity of at least MW are tested and commissioned at the Facility and are able to produce and deliver Energy to the Point of Delivery in compliance with this Agreement;

(B) the Facility has achieved initial synchronization with the Transmission Provider's System;

(C) the interconnection of the Facility to the Transmission Provider's System has been completed in material compliance with the Interconnection Agreement and has operated at a generation level acceptable to the Interconnection Provider in material compliance with the operating requirements of the Interconnection Agreement, in either case, such that there is no material adverse effect on Seller's or Purchaser's ability to perform its obligations under this REPA;

(D) Seller can demonstrate that it can reliably transmit real time data and measurements with Purchaser in accordance with the requirements of Exhibit H;

(E) all arrangements for the supply of required electric services to the Facility, including the supply of turbine unit start-up and shutdown power and energy, house power and maintenance power have been completed by Seller separate from this REPA, are in effect, and are available for the supply of such electric services to the Facility;

(F) the Seller Security Fund has been established pursuant to Section 11.1;

(G) certificates of insurance evidencing the coverages required by Article 16 have been obtained and submitted to Purchaser;

(H) all permits, consents, licenses, approvals, and authorizations required to be obtained by Seller from any Governmental Authority to construct and operate the Facility in compliance with applicable law and this REPA have been obtained;

(I) Seller has made all necessary filings and applications with Governmental Authorities for accreditation and participation in GATS and in any applicable federal or state REC certification program pursuant to Section 10.9; and



4.8 [Intentionally Deleted].

# 4.9 <u>QF Waiver</u>.

For so long as this REPA is in effect, Seller waives, and agrees not to assert, the rights Seller may have against Purchaser to cause Purchaser to purchase or transmit energy or capacity pursuant to 18 C.F.R. section 292.303 or section 292.304 by virtue of the status of the Facility as a qualifying cogeneration facility as defined in the Public Utility Regulatory Policies Act of 1978, as amended.

# ARTICLE 5 DELIVERY AND METERING

# 5.1 <u>Seller's and Purchaser's Obligations</u>.

Subject to, and in accordance with, the terms and conditions of this REPA, including Section 5.3(A). Purchaser does hereby agree to purchase and pay for Purchaser's Contract Capacity Share of Renewable Energy Products, and Seller does hereby agree to sell and deliver to the Point of Delivery, or cause to be delivered to the Point of Delivery, Purchaser's Contract Capacity Share of the Renewable Energy Products during the Delivery Period. Subject to Section 7.1, Purchaser shall have the exclusive right to purchase and receive all of Purchaser's Contract Capacity Share of Renewable Energy Products, with the exception of Energy produced by Seller for its own use at the Facility for station power. Seller shall not offer, sell or make available any of Purchaser's Contract Capacity Share of Renewable Energy Products or dispatch Purchaser's Contract Capacity Share thereof to or for the benefit of Seller (except for its own use at the Facility for station power) or any other Person, other than to Purchaser. For the avoidance of doubt, Purchaser hereby acknowledges and agrees that Seller may offer, sell and make available to third parties any of the Uncommitted Capacity of Renewable Energy Products or dispatch any of the Uncommitted Capacity thereof to or for the benefit of Seller. Notwithstanding any provision herein to the contrary and without in any way restricting or limiting Purchaser's ability to declare an Economic Curtailment, Purchaser's failure, inability or unwillingness to pay congestion charges,

location marginal pricing differentials or any other congestion costs or charges shall not excuse Purchaser's obligation to purchase and accept the Renewable Energy Products hereunder.

# 5.2 <u>Required Operation</u>.

Except to the extent the Facility is actually unavailable or limited (including in accordance with Good Utility Practice(s) and due to curtailments under Section 7.4(A)), Seller shall operate the Facility to provide the Renewable Energy Products to Purchaser in all hours of the Delivery Period. Seller agrees that, notwithstanding anything herein to the contrary, Seller will not curtail or otherwise reduce deliveries of Renewable Energy Products to other purchasers.



5.3 Delivery Arrangements.

(C) Seller shall be responsible for paying any and all transmission upgrade costs identified by the Transmission Operator as Seller's responsibility in order to designate the Facility as a Network Resource.

5.4 <u>Electric Metering Devices</u>.

(A) Seller will comply with the terms and conditions of the Interconnection Agreement. The following provisions on Electric Metering Devices shall apply only to the extent they do not conflict with the performing party's rights and obligations under the Interconnection Agreement or the OATT, as applicable.

(B) Seller shall provide Purchaser with reasonable advance notice of, and permit a representative of Purchaser to witness and verify, inspections and tests of the Electric Metering Devices, provided, however, that Purchaser shall not unreasonably interfere with or disrupt the activities of Seller and shall comply with all of Seller's safety standards. Upon request by Purchaser, Seller shall perform additional inspections or tests of any Electric Metering Device and shall permit a qualified representative of Purchaser to inspect or witness the testing of any Electric Metering Device, provided, however, that Purchaser shall not unreasonably interfere with or disrupt the activities of Seller and shall comply with all of Seller's safety standards. The actual expense of any such requested additional inspection of testing shall be borne by Purchaser, unless upon such inspection or testing an Electric Metering Device is found to register inaccurately by more than the allowable limits established in this Article, in which event the expense of the requested additional inspection or testing shall be borne by Seller. If requested by Purchaser in writing, Seller shall provide copies of any inspection or testing reports to Purchaser.

(C)Purchaser and Seller each may elect to install and maintain, at its own expense, backup metering devices ("Back-Up Metering") in addition to the Electric Metering Devices. Each Party, at its own expense, shall inspect and test its Back-Up Metering upon installation and at least annually thereafter. Each Party shall provide the other Party with reasonable advance notice of, and permit a representative of the other Party to witness and verify, such inspections and tests, provided, however, that the observing Party shall not unreasonably interfere with or disrupt the activities of the testing Party and shall comply with all of the testing Party's safety standards. Upon request by a Party, the other Party shall perform additional inspections or tests of its Back-Up Metering and shall permit a qualified representative of the requesting Party to inspect or witness the testing of such Back-Up Metering, provided, however, that the observing Party shall not unreasonably interfere with or disrupt the activities of the testing Party and shall comply with all of the testing Party's safety standards. The actual expense of any such requested additional inspection or testing shall be borne by the requesting Party, unless, upon such inspection or testing, the Back-Up Metering is found to register inaccurately by more than the allowable limits established in this Article, in which event the expense of the requested additional inspection or testing shall be borne by the testing Party. If requested by the requesting Party in writing, the testing Party shall provide copies of any inspection or testing reports to the requesting Party.

(D) If any Electric Metering Devices, or any Back-Up Metering, are found to be defective or inaccurate, they shall be adjusted, repaired, replaced, or recalibrated as near as practicable to a condition of zero error by the Party owning such defective or inaccurate device and at that Party's expense. The Party discovering such defect or inaccuracy shall promptly notify the other Party of such discovery's expense.

# 5.5 Adjustment for Inaccurate Meters.

(A) The following provisions on Adjustment for Inaccurate Meters shall apply only to the extent they do not conflict with the performing Party's rights and obligations under the Interconnection Agreement or the OATT, as applicable.

(B) If an Electric Metering Device, or Back-Up Metering, fails to register, or if the measurement made by an Electric Metering Device, or Back-Up Metering, is found upon testing to be inaccurate by more than one percent (1.0%) from the measurement made by the standard meter used in the test, an adjustment shall be made correcting all measurements by the inaccurate or defective Electric Metering Device, or Back-Up Metering, for both the amount of the inaccuracy and the period of the inaccuracy, in the following manner:

(C) In the event that the Electric Metering Device is found to be defective or inaccurate, the Parties shall use the Back-Up Metering, if installed, to determine the amount of such inaccuracy, provided, however, that the Back-Up Metering has been tested and maintained in accordance with the provisions of this Article. If both Parties have installed Back-Up Metering, and the Back-Up Metering of both Parties is inaccurate by not more than one percent (1.0%) from the measurements made by the standard meter used in the test, the readings from the Back-Up Metering whose readings most closely conforms with the measurements made by the standard meter shall be used. In the event that neither Party has installed Back-Up Metering, or the Back-Up Metering is also found to be inaccurate by more than one percent (1.0%) from the measurement made by the standard meter used in the test, the Parties shall estimate the amount of the necessary adjustment on the basis of deliveries of Renewable Energy from the Facility during periods of similar operating conditions when the Electric Metering Device was registering accurately. The adjustment shall be made for the period during which inaccurate measurements were made.

(D) In the event that the Parties cannot agree on the actual period during which the inaccurate measurements were made, the period during which the measurements are to be adjusted shall be the shorter of (i) the last one-half of the period from the last previous test of the Electric Metering Device to the test that found the Electric Metering Device to be defective or inaccurate, or (ii) the one hundred eighty (180) Days immediately preceding the test that found the Electric Metering Device to be defective or inaccurate.

(E) To the extent that the adjustment period covers a period of deliveries for which payment has already been made by Purchaser, Purchaser shall use the corrected measurements as determined in accordance with this Article to recompute the amount due for the period of the inaccuracy and shall subtract the previous payments by Purchaser for this period from such re-computed amount. If the difference is a positive number, the difference shall be paid by Purchaser to Seller; if the difference is a negative number, that difference shall be paid by Seller to Purchaser, or at the discretion of Purchaser, may take the form of an offset to payments due Seller by Purchaser (or by payment to Purchaser, if sufficient payments do not remain to offset). Payment of such difference by the owing Party shall be made not later than thirty (30) Days after the owing Party receives notice of the amount due, unless Purchaser elects payment via an offset.

5.6 Scheduling Arrangements.







# ARTICLE 6 CONDITIONS PRECEDENT

# 6.1 Purchaser Condition Precedent.

No later than thirty (30) Days after execution of this REPA, Purchaser may, but shall not be obligated to, request recovery of costs associated with this REPA without modification from the Commission. If Purchaser fails to make a timely cost recovery request, condition precedent in this Section 6.1 shall be deemed waived and this REPA shall remain in full force and effect thereafter. In the event that Purchaser makes such a timely cost recovery request, but despite commercially reasonable efforts, is unable to obtain the following by September 15, 2010, Purchaser, by notice to Seller delivered on or prior to September 30, 2010, may terminate this REPA, without any further financial or other obligation by either Party as a result of such termination:

A final, non-appealable order from the Commission approving the terms and conditions of the REPA and authorizing Purchaser to recover all of the jurisdictional costs associated with this REPA through Kentucky Power Company Base Rates.

If Purchaser fails to deliver such a notice of termination, the condition precedent in this Section 6.1 shall be deemed waived and this REPA shall remain in full force and effect thereafter.

6.2 Seller Condition Precedent.



# ARTICLE 7 SALE AND PURCHASE OF RENEWABLE ENERGY

# 7.1 Sale and Purchase.

Beginning on the Contract Start Date, Seller shall generate from the Facility, deliver to the Point of Delivery, and sell to Purchaser, and, subject to the terms and conditions of this REPA, including Section 5.3(A) and Section 5.6, Purchaser shall purchase and pay for, at the Contract Rate, Purchaser's Contract Capacity Share of all Renewable Energy generated by the Facility. Purchaser shall have no obligation to pay for any Energy that has not actually been generated by the Facility, measured by the Electric Metering Device(s) and delivered to Purchaser at the Point of Delivery, except in connection with an Economic Curtailment. To the extent Renewable Energy is delivered by Seller to the Point of Delivery contrary to an Economic Curtailment or Reliability Curtailment, Purchaser shall pay for such Renewable Energy at the rates provided herein, but such purchase price shall be reduced by all direct out of pocket net costs (including any positive difference between the Contract Rate and the real-time LMP) incurred by Purchaser as a result of using or disposing of any Renewable Energy deliveries contrary to an Economic Curtailment.





# 7.3 <u>Title and Risk of Loss</u>.

As between the Parties, Seller shall be deemed to be in control of the Renewable Energy output from the Facility up to the Point of Delivery, and Purchaser shall be deemed to be in control of Purchaser's Contract Capacity Share of such Renewable Energy output from and after the Point of Delivery. Title and risk of loss related to the Renewable Energy delivered by Seller to Purchaser hereunder shall transfer from Seller to Purchaser at the Point of Delivery.

7.4 Curtailments.



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# 7.5 <u>Reductions for Curtailments</u>.

(A) In the event of a Reliability Curtailment, Force Majeure event, a Forced Outage, a Schedule Outage/Derating or other planned or unplanned outage of the Facility, Seller shall allocate the curtailment ratably among purchasers of Facility output, by delivering to Purchaser its Contract Capacity Share of the non-curtailed level of output.

(B) During periods of Economic Curtailment by Purchaser, (i) Purchaser's Contract Capacity Share shall be reduced to zero (0), (ii) Seller shall curtail operation of Wind Turbine capacity representing a percentage of the Facility Capacity most closely corresponding to the portion of Purchaser's Contract Capacity Share of Facility Capacity, and (iii) Seller may continue to operate the Uncommitted Capacity.

(C) During periods of a curtailment comparable to an Economic Curtailment of a portion of the output of the Facility by Seller, with respect to Seller's Merchant Capacity, or required by a Third Party Purchaser under its Third Party Power Purchase Agreement, to the extent Seller curtails output from the Facility as a result of such curtailment, the Contract Capacity Share shall be increased to an amount determined by removing such curtailed amount from the Facility Capacity for purposes of calculating the Contract Capacity Share for such period, and (ii) Seller shall, with respect to Seller's Merchant Capacity, and to the extent it is required to do so under such Third Party Purchaser Power Purchase Agreement, curtail operating Wind

Turbines with an aggregate capacity representing a percentage of the Facility Capacity most closely corresponding to the portion of the Facility Capacity that Seller would have received from Seller's Merchant Capacity, and that such Third Party Purchaser would have been entitled to receive under its Third Party Power Purchase Agreement, in the absence of such required curtailment.

Tax Benefits. If, for any reason, Seller does not receive the (i) investment 7.6 tax credits or any other federal or state tax credits, deductions, or exemptions applicable to Seller or any of its Affiliates based on its ownership or operation of the Facility or on the production and sale of Renewable Energy Products to the Purchaser, or (ii) federal or state cash payments or outright grants of money relating to the ownership, development, construction, expansion, operation, maintenance or financing of the Facility, the cost of Renewable Energy Products delivered to Purchaser under this REPA shall not be affected, and the risk of not obtaining such tax credits or other benefits or incentives shall be borne solely by Seller.



**ARTICLE 8** 

# **ARTICLE 9 BILLING AND PAYMENT**

#### 9.1 Billing Invoices.

The monthly billing period shall be the calendar month. No later than ten (10) Business Days after the end of each calendar month, Seller shall provide to Purchaser, by first-class mail or electronically, an invoice for the amount due Seller by Purchaser for the services provided by Seller and purchased by Purchaser, under this REPA, during the previous calendar month billing period, including PJM charges and credits pursuant to Section 5.6. Seller's invoice will show all billing parameters, Contract Rates and factors, and any other data reasonably pertinent to the calculation of monthly payments due to Seller. Seller's failure to timely provide Purchaser with the monthly invoice shall not waive Purchaser's responsibility for payment under the terms stated in Section 9.2 below, except as provided in Section 13.9(B).

# 9.2 Payments.

Unless otherwise specified herein, payments due under this REPA shall be due and payable on or before the later of (i) the twentieth (20<sup>th</sup>) Day of the month following the month to which such payment relates and (ii) the tenth (10<sup>th</sup>) Business Day following receipt of the billing invoice. Unless Seller directs Purchaser otherwise, all payments by Purchaser to Seller shall be made by electronic funds transfer. If the amount due is not paid on or before the due date, a late payment charge shall be applied to the unpaid balance and shall be added to the next billing statement. Such late payment charge shall be calculated using an annual interest rate equal to the prime lending rate as may from time to time be published in *The Wall Street Journal* under "Money Rates" on such Day (or if not published on such day on the most recent preceding Day on which published) (or if generally unavailable, any other basis mutually agreed to by the Parties), plus two percent (2%). If the due date occurs on a Day that is not a Business Day, the late payment charge shall begin to accrue on the next succeeding Business Day.

#### 9.3 Billing Disputes.

Purchaser may dispute invoiced amounts, but shall pay to Seller the undisputed portion of invoiced amounts on or before the invoice due date. To resolve any billing dispute, the Parties shall use the procedures set forth in Section 13.9. When the billing dispute is resolved, the Party owing shall pay the amount owed within five (5) Business Days of the date of such resolution, with late payment interest charges calculated on the amount owed in accordance with the provisions of Section 9.2 from the date such amount was originally due. Purchaser and Seller at any time may offset against any and all amounts that may be due and owed to the other Party under this REPA any amounts that are owed by such other Party to Purchaser or Seller, as applicable, pursuant to this REPA including damages and other payments. Undisputed and non-offset portions of amounts invoiced under this REPA shall be paid on or before the due date or shall be subject to the late payment interest charges set forth in Section 9.2.

# ARTICLE 10 OPERATIONS AND MAINTENANCE

#### 10.1 Facility Operation.

Seller shall staff, control, and operate the Facility consistent at all times with Good Utility Practice(s) and the Contract Administration Procedures developed pursuant to Section 10.3. Personnel capable of starting, operating, and stopping the Facility shall be available, either at the Facility or capable of remotely starting and stopping the Facility within no more than fifteen (15) minutes after Seller's receipt of notice of the beginning or end of any curtailment. In all cases, personnel capable of starting, operating, and stopping the Facility shall be continuously reachable by phone or pager. Seller shall maintain the Communications Equipment in good operating order at all times during the Term.

# 10.2 Outage and Performance Reporting.

(A) Seller shall comply with all NERC, RFC and the Transmission Operator generating unit outage and performance reporting requirements, as they may be revised from time to time, and as they apply to the Facility.

(B) When Forced Outages of ten percent (10%) or greater of the Wind Turbines that are part of the Facility occur, Seller shall notify Purchaser of the existence, nature, and expected duration of the Forced Outage as soon as practical, but in no event later than (i) thirty (30) minutes after the Forced Outage occurs if it occurs during normal business hours or (ii) the beginning of normal business hours if such Forced Outage occurs outside of normal business hours. Seller shall thereafter inform Purchaser of changes in the expected duration of the Forced Outage unless relieved of this obligation by Purchaser for the duration of each Forced Outage.

(C) Seller shall provide Purchaser with prompt notice of any malfunction or other failure of the Communications Equipment.

10.3 <u>Contract Administration Committee and Contract Administration</u> <u>Procedures</u>.

(A) Purchaser and Seller shall each appoint one representative and one alternate representative to act in matters relating to the Parties' performance obligations under this REPA and to develop operating arrangements for the generation, delivery and receipt of Renewable Energy hereunder. Such representatives shall constitute the Contract Administration Committee, and shall be as specified on Exhibit D. The Parties shall notify each other in writing of such appointments and any changes thereto. The Contract Administration Committee shall have no authority to modify the terms or conditions of this REPA.

(B) Prior to the Commercial Operation Date, the Contract Administration Committee shall develop mutually agreeable written Contract Administration Procedures which shall include, but not be limited to, method of day-today communications; metering, telemetering, telecommunications, and data acquisition procedures; key personnel list for applicable Purchaser and Seller operating centers; operations and maintenance scheduling and reporting; Renewable Energy reports; unit operations log; and such other matters as may be mutually agreed upon by the Parties.

#### 10.4 Access to Facility.

Appropriate representatives of Purchaser shall at all reasonable times, including weekends and nights, and with reasonable prior notice, have access to the Facility to read meters, to perform maintenance and service of Purchaser's equipment and to perform all inspections and operational reviews as may be reasonably appropriate to facilitate the performance of this REPA. Purchaser will not interfere in any material respect with the operation of the Facility, and will cause all persons visiting the Facility on its behalf to comply with all of Seller's applicable safety, health and similar rules and requirements.

10.5 <u>Reliability Standards</u>. Seller shall operate the Facility in a manner that complies with all national and regional reliability standards, including standards set by the Transmission Operator, RFC, NERC and the FERC, or any successor agencies setting reliability standards for the operation of generation facilities. To the extent that Seller does not operate the Facility in accordance with such standards that result in monetary penalties being assessed to Purchaser by the Transmission Operator, RFC, NERC, or the FERC, Seller shall reimburse Purchaser for its share of such monetary penalties.

# 10.6 Beneficial Environmental Interests.

The Parties acknowledge that future and or existing legislation or regulation may create value in the ownership, use or allocation of the Beneficial Environmental Interests of the Facility. Purchaser shall own or be entitled to claim Purchaser's Contract Capacity Share of all Beneficial Environmental Interests to the extent they may exist during the Term.

# 10.7 Availability Reporting.

(A) On the first Business Day of each month commencing after the Commercial Operation Date, Seller will furnish Purchaser with a notice setting forth its good faith estimate of (i) the hourly availabilities of the Facility for such month and the next month and (ii) the expected average daily availability of the Facility for each of the ten (10) months subsequent to such next month. With respect to the preceding clause (A)(i), if Seller later updates its availability estimates for such periods, it shall deliver to Purchaser a revised notice setting forth its then current good faith estimate of hourly availabilities of the Facility for the balance of such month and for the next month. Seller does not guarantee the accuracy of said notices and said notices are only intended to be its good faith estimate of the projected availability of the Facility at the time such notice is given.

Seller shall furnish to Purchaser a notice substantially in the (B) form attached hereto as Exhibit K (an "Availability Notice") at or before 9:00 a.m. EPT on the Business Day immediately prior to the first Day to which such Availability Notice shall relate that shall set forth the Facility Capacity that Seller anticipates will actually be available in each hour through the next Business Day and each subsequent Business Day to which such Availability Notice relates. Seller also shall furnish to Purchaser a revised Availability Notice promptly after the occurrence of any Force Majeure event, Forced Outage, unscheduled outage or other unplanned maintenance, derating, or other event that would reduce or interrupt Renewable Energy or Ancillary Services associated with Purchaser's Contract Capacity Share of Facility Capacity or cause the controlling Availability Notice to be inaccurate or incomplete in any material respect. with a description of the circumstances thereof. Each such Availability Notice shall be effective until delivery of a subsequent Availability Notice. Seller does not guarantee the accuracy of said Availability Notices, and said Availability Notices are only intended to be its good faith estimate of the projected availability of the Facility at the time such notice is given.

# 10.8 Planned Maintenance Schedule.

No later than (a) fourteen (14) Days after the execution of this REPA and (b) two months prior to each calendar year thereafter during the Term, Seller shall submit to Purchaser a schedule of planned maintenance for the following calendar year for the Facility, which schedule shall be updated by Seller by each March 31 and September 30 thereafter to cover the twelve month period following each such update. Such schedule shall be consistent with the requirements of Good Utility Practice and the Interconnection Agreement, and otherwise in accordance with this REPA. No planned maintenance of the Facility substation or any other portion of the Facility that would affect the availability of more than 10% of the Facility Capacity at any one time may be scheduled during the period June, July, and August during any Contract Year during the Delivery Period; provided, however, that planned maintenance may be scheduled during such period to the extent (i) required by or necessary to preserve any equipment warranties or (ii) the failure to perform such planned maintenance is contrary to operation in accordance with Good Utility Practice(s). Such schedule, and each supplement thereto, shall indicate the planned commencement and completion dates for each planned maintenance during the period covered thereby, as well as the affected portion(s) of the Facility. If Purchaser desires to change the scheduled commencement or duration of planned maintenance, the Purchaser shall notify the Seller of the requested change and the Seller shall use reasonable efforts to accommodate the requested change. At least one (1) week prior to any planned maintenance. Seller shall telephonically notify Purchaser of the expected commencement date of such planned maintenance, the affected portion(s) of the Facility during such planned maintenance and the expected completion date of such planned maintenance. As soon as practicable, all such telephonic notification shall be confirmed in writing.

# 10.9 Certification of RECs.

(A) Seller shall be responsible for causing the GATS Certificates delivered under this REPA to meet all requirements for entry into GATS and as otherwise specified by the PJM-EIS. Seller shall be responsible for registering and maintaining compliance during the duration of this REPA with GATS and the PJM-EIS and will be responsible for timely delivery as allowed by GATS and the PJM-EIS. The Parties will effectuate the delivery and receipt of the GATS certificates by making and confirming appropriate entries into GATS and otherwise as specified by the PJM-EIS.

(B) Seller shall, at its own cost, take all actions necessary to register for and maintain participation in any applicable system or program established by the federal Governmental Authority or the State of Kentucky to monitor, track, certify or trade RECs or Renewable Energy certificates. To the extent necessary, Seller shall assign to Purchaser all rights, title and authority for Purchaser to register, own, hold and manage certificates that represent RECs respecting Renewable Energy in Purchaser's own name and to Purchaser's account, including any rights associated with any renewable energy information or tracking system that may be established with regard to monitoring, tracking, certifying, or trading such RECs or Renewable Energy certificates. Upon the request of Purchaser from time to time, at no cost to Purchaser, (i) Seller shall deliver or cause to be delivered to Purchaser such attestations/certifications of RECs as may be required to comply with any certification system or program, and (ii) Seller shall provide full cooperation in connection with Purchaser's registration and certification of RECs or Renewable Energy certificates.

#### 10.10 Public Statements/Other Use.

Without the written consent of Purchaser, Seller shall not (1) make any public statements or representations with respect to the Renewable Energy Products (or any portion thereof) inconsistent with the provisions of this REPA, (2) use the Purchaser's Contract Capacity Share of the Facility's Beneficial Environmental Interests to meet any federal, state or local renewable energy requirement, renewable energy procurement, renewable energy portfolio standard or other renewable energy mandate or (3) advertise, market, sell, retire, convey or otherwise transfer or seek to transfer the Purchaser's Contract Capacity Share of the Facility's Beneficial Environmental Interests, which rights are expressly reserved to Purchaser during the Term of this REPA.

#### 10.11 Real-Time Information.

Seller will use commercially reasonable efforts on and after the later to occur of (1) the Contract Start Date and (2) the Commercial Operation Date to continuously transmit real-time data to Purchaser in compliance with Exhibit H. Purchaser and Seller shall each bear the cost of and responsibilities for their respective systems, equipment and communications links required for receipt of such real-time information.

#### 10.12 Web-Based Operational Reporting.

Purchaser may at its option make available to Seller on the Internet a web-based reporting system which will provide the Parties with the capability to generate and submit standardized reports for purposes of satisfying the requirements of the Parties contained in Sections 10.2, 10.7 and 10.8. Purchaser will develop user requirements for such reporting system in consultation with Seller.

# ARTICLE 11 SECURITY FOR PERFORMANCE

#### 11.1 Seller Security Fund.

(A) Seller shall establish, fund, and maintain a Seller Security Fund, pursuant to the provisions of this Article 11, which shall be available to pay any amount due Purchaser pursuant to this REPA. The Seller Security Fund shall also provide security to Purchaser to cover (i) Delay Damages, should the Facility fail to achieve the Commercial Operation Date by the Commercial Operation Milestone; ; and (iii) other amounts or damages that Purchaser may be entitled to recover hereunder as the result of an Event of Default by Seller under this REPA. Seller shall establish, and maintain throughout the Term, the Seller Security Fund at an

conditions precedent set forth in Section 6.2 have either been satisfied or waived.

(B) In addition to any other remedy available to it, Purchaser may, before or after termination of this REPA, draw from the Seller Security Fund such amounts as are necessary to recover amounts Purchaser is owed pursuant to this REPA, including any damages due to Purchaser and any amounts for which Purchaser is entitled to indemnification under this REPA, but only in the event such amounts have not been paid within five (5) Business Days of a written request therefor presented to Seller. Purchaser may, in its sole discretion, draw all or any part of such amounts due to it from any form of security to the extent available pursuant to this Section 11.1(B), and from all such forms, and in any sequence Purchaser may select. Any failure to draw upon the Seller Security Fund or other security for any damages or other amounts due to Purchaser shall not prejudice Purchaser's rights to recover such damages or amounts in any other manner.

(C) The Seller Security Fund shall be maintained at Seller's expense, shall be issued by or deposited in an Issuer, and shall be in the form of one or more of the following instruments. Seller may change the form of the Seller Security Fund at any time and from time to time upon reasonable prior notice to Purchaser, but the Seller Security Fund must at all times be comprised of one or any combination of the following:

An irrevocable standby letter of credit, in form and substance (1)reasonably acceptable to Purchaser, from an Issuer with a senior unsecured debt rating equivalent to A- (S&P) or A3 (Moody's) or better as determined by at least two (2) rating agencies, one of which must be either Standard & Poor's or Moody's (or if either one or both are not available, equivalent ratings from alternate rating sources acceptable to Purchaser). In addition, if such senior unsecured debt rating of the Issuer is exactly equivalent to A-/A3, the Issuer must not be on credit watch by a rating agency. Security provided in this form shall be consistent with this REPA and include a provision for at least thirty (30) Days advance notice to Purchaser of any non-renewal, expiration or earlier termination of the security so as to allow Purchaser sufficient time to exercise its rights under said security if Seller fails to extend or replace the security. The form of such security must meet Purchaser's requirements to ensure that claims or draw-downs can be made unilaterally by Purchaser in accordance with the terms of this REPA. Such security must be issued for a minimum term of three hundred and sixty (360) Days. Seller shall cause the renewal or extension of the security for additional consecutive terms of three hundred and sixty (360) Days or more (or, if shorter, the remainder of the Term of this REPA) no later than thirty (30) Days prior to each expiration date of the security. If the security is not renewed or extended as required herein, Purchaser shall have the right to draw immediately upon the security and be entitled to hold the amounts so drawn as security, provided Purchaser satisfies the conditions of Section 11.1(C)(2)(i). If Purchaser does not meet the conditions of Section 11.1(C)(2)(i), Purchaser will place the amounts so drawn, in an interest bearing escrow account in accordance with Section 11.1(C)(2)(ii), until and unless, upon return to Seller of such security, Seller provides a substitute form of such security meeting the requirements of this Article. Security in the form of an

irrevocable standby letter of credit shall be governed by the Uniform Customs and Practice for Documentary Credits (2007 Revision), International Chamber of Commerce Brochure No. 600.

(2)United States currency ("Cash"), deposited (i) with Purchaser provided that Purchaser satisfies the following conditions: (a) it is not a defaulting party, and (b) Purchaser has a senior unsecured debt rating from Standard and Poor's of at least BBB- and from Moody's of at least Baa3. Purchaser will pay interest to Seller on Cash held at the Federal Funds Effective Rate; or (ii) if, and only if, Purchaser does not meet the aforementioned conditions of Section 11.1(C)(2)(i), then the Cash shall be held with Issuer, either: (a) in an account under which Purchaser is designated as beneficiary with sole authority to draft from the account or otherwise access the security; or (b) held by Issuer as escrow agent with instructions to pay claims made by Purchaser pursuant to this REPA, such instructions to be in a form reasonably satisfactory to Purchaser. Security held pursuant to Section 11.1(C)(2)(ii) shall be subject to the following: (x) include a requirement for immediate notice to Purchaser from Issuer and Seller in the event that the sums held as security in the account or trust do not at any time meet the required level for the Seller Security Fund as set forth in this Section 11.1, (y) funds held in the account may be deposited in a money-market fund, short-term treasury obligations, investment-grade commercial paper and other liquid investment-grade investments with maturities of three months or less, with all investment income thereon to be taxable to, and to accrue for the benefit of, Seller, and (z) after the Commercial Operation Date is achieved, annual account sweeps for recovery of interest earned by the Seller Security Fund shall be allowed by Seller. Seller grants to Purchaser a present and continuing first priority security interest in all Cash which has been transferred to Purchaser or held by Issuer. At such times as the balance of Cash held by Purchaser or by Issuer exceeds the amount of Seller's obligation to provide security hereunder, Purchaser shall remit to Seller on demand any excess in the account above Seller's obligations.

(D) If the Issuer of the Seller Security Fund no longer satisfies the requirements of Section 11.1(C), Seller shall provide replacement security satisfying the requirements of Section 11.1(C) no later than fifteen (15) Days after receiving notice from Purchaser that such conversion of the Seller Security Fund instrument is required. Upon receipt of such replacement security, Purchaser shall promptly return to Seller of any of Seller Security Fund being replaced then held by Purchaser and the effectiveness of any such replacement security shall be conditioned upon such prompt return to Seller thereof. Seller may object to Purchaser's request for replacement security by delivering written notice to Purchaser within five (5) Business Days of receipt of Purchaser's written request for such replacement security, and in such event the dispute resolution procedures contained in Exhibit L shall apply.

(E) Promptly following the end of the Term and the completion of all of Seller's obligations under this REPA, Purchaser shall release the Seller Security Fund (including any accumulated interest, if applicable) to Seller.



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# ARTICLE 12 DEFAULT AND REMEDIES

12.1 <u>Events of Default</u>. Any of the following shall constitute an "Event of Default":

(A) A failure by a Party to pay any amount due hereunder, where such failure is not cured within after receipt of written notice of such failure;

Either Party (or any Person providing credit support hereunder (B) on behalf of such Party) has (a) commenced a voluntary case under any bankruptcy law, applied for or consented to the appointment of, or the taking of possession by, a receiver, trustee, assignee, custodian or liquidator of all or a substantial part of its assets, (b) failed, or admitted in writing its inability generally, to pay its debts as such debts become due, (c) made a general assignment for the benefit of creditors (except for an assignment to the Facility Debt Representative as security under the Financing Documents as permitted by this REPA), (d) been adjudicated bankrupt or has filed a petition or an answer seeking an arrangement with creditors, (e) taken advantage of any insolvency law or shall have submitted an answer admitting the material allegations of a petition in bankruptcy or insolvency proceeding, (f) become subject to an order, judgment or decree for relief, entered in an involuntary case, without the application, approval or consent of such Party by any court of competent jurisdiction appointing a receiver, trustee, assignee, custodian or liquidator, for a substantial part of any of its assets and such order, judgment or decree shall continue unstayed and in effect for any period of **contract of the second second second** (g) filed a voluntary petition in bankruptcy, (h) failed to remove an involuntary petition in bankruptcy filed against it within of the filing thereof, or (i) become subject to an order for relief under the provisions of the United States Bankruptcy Act, 11 U.S.C. § 301;

(C) If Purchaser fails to provide the Purchaser Security Fund pursuant to Section 11.2, or replacement or substitute Purchaser Security Fund pursuant to Section 11.2, when required, or if Seller fails to provide the Seller Security Fund pursuant to Section 11.1, or replacement or substitute Seller Security Fund pursuant to Section 11.1, when required, and if the Party required to deliver such security fails to do so within five (5) calendar Days after receipt of written notice and demand therefor by the other Party, such failure shall constitute an Event of Default by the Party required to provide such security; or

(D) Any other breach of a material obligation under this REPA, other than as set forth in Section 12.1(A), (B), (C) and (E), if such default has not been cured by the defaulting Party within after receiving written notice from the nondefaulting Party setting forth, in reasonable detail, the nature of such default and its impact on the non-defaulting Party; *provided, however*, that, in the case of any such default that is not reasonably capable of being cured within the case of any such defaulting Party shall have additional time as necessary, not to exceed to cure the default if it commences to cure the default within such period and it diligently and continuously pursues such cure.

Seller's failure to meet the Commercial Operation Milestone by the (E) Delay Damages Commencement Date, where such failure is not cured within after the date of written notice of such failure from Purchaser to Seller and the Facility Debt Representative as provided for in Section 13.1; provided, however, that Seller shall have an additional period (together with the initial period provided for above, a total of ) to achieve the Commercial Operation Date (and for such failure to constitute an Event of Default), provided that, on or before the expiration of the initial period, an independent engineer, mutually agreed to by the Parties, retained by Purchaser and paid for by Seller, provides a written opinion to Purchaser stating that Seller's plan for achieving the Commercial Operation Date is reasonably achievable within such additional period. The cure periods provided for in this Section 12.1(E) shall not in any manner reduce, increase or otherwise modify Seller's obligation to pay Delay Damages under Section 4.1, which Delay Damages shall continue accruing and shall expire as provided for in Section 4.1, notwithstanding the cure periods provided for in this Section 12.1(E).



# 12.2 Facility Lenders' Right to Cure Default of Seller.

Notwithstanding the foregoing provisions of Section 12.1, in the case of an Event of Default by Seller, Purchaser shall provide the Facility Debt Representative (if any) with notice of such Event of Default and the Facility Debt Representative shall have the right (but not the obligation) either to cure the Event of Default on behalf of Seller, or, upon payment to Purchaser of amounts due from Seller but not paid by Seller, to assume, or cause its designee or a lessee or purchaser of the Facility to assume, all of the rights and obligations of Seller under this REPA arising after the date of such assumption as more fully described in Section 19.2.

12.3 <u>Non-Defaulting Party Rights</u>. Upon the occurrence of an Event of Default by a Party, the non-defaulting Party shall have the following rights:

(A) To terminate this REPA pursuant to Section 12.5(A);

(B) To suspend performance of its obligations and duties hereunder immediately upon delivering written notice to the defaulting Party of its intent to exercise its suspension rights; and

(C) To pursue any other remedy given under this REPA or now or hereafter existing at law or in equity or otherwise.

12.4 Damages Prior to Termination.

Each Party shall have the right to collect damages from the other Party arising from its breach of this REPA. Upon the occurrence of an Event of Default, the non-defaulting Party shall have the right to collect damages accruing prior to the termination of this REPA from the defaulting Party as set forth below, and the payment of any such damages accruing prior to the cure of an Event of Default shall constitute a part of the cure. For all Events of Default (other than Seller's failure to meet the Commercial Operation Milestone, for which Purchaser's sole and exclusive remedy shall be to collect Delay Damages pursuant to Section 4.1 and Seller's failure to achieve the Guaranteed Availability, for which Purchaser's sole and exclusive remedy shall be to collect Shortfall Liquidated Damages pursuant to Section 7.2), the non-defaulting Party shall be entitled to receive from the defaulting Party its damages resulting from such Event of Default.



#### 12.5 Termination.

(A) Upon the occurrence of an Event of Default which has not been cured within the applicable cure period, the non-defaulting Party shall have the right to declare a date, which date shall be no less than and no more than after the expiration of all applicable cure periods with respect to the Event of Default, upon which this REPA shall terminate. Neither Party shall have the right to terminate this REPA except as provided for upon the occurrence of an Event of Default as described above or as otherwise may be explicitly provided for in this REPA. Upon the termination of this REPA under this Section 12.5, the non-defaulting Party shall be entitled to receive from the defaulting Party, all of the actual damages incurred by the non-defaulting Party in connection with such termination in accordance with Section 12.4. Such actual damages shall be calculated for the remainder of the Term (assuming the Term had continued without early termination) on a net present value basis in a commercially reasonable manner.

#### 12.6 <u>Specific Performance</u>.

Each Party shall be entitled to seek a decree compelling specific performance with respect to, and shall be entitled, without the necessity of filing any bond, to seek the restraint by injunction of, any actual or threatened breach of any material obligation of the other Party under this REPA. The Parties in any action for specific performance or restraint by injunction agree that they shall each request that all expenses incurred in such proceeding, including, but not limited to, reasonable counsel fees, be apportioned in the final decision based upon the respective merits of the positions of the Parties.

### 12.7 Remedies Cumulative.

Subject to the exclusivity of Delay Damages provided in Section 4.1 and Shortfall Liquidated Damages provided in Section 7.2, the limitations on damages set forth in Section 12.8 and other limitations specified in this REPA, each right or remedy of the Parties provided for in this REPA shall be cumulative of and shall be in addition to every other right or remedy provided for in this REPA, and the exercise, or the beginning of the exercise, by a Party of any one or more or the rights or remedies provided for herein shall not preclude the simultaneous or later exercise by such Party of any or all other rights or remedies provided for herein.

# 12.8 Waiver and Exclusion of Other Damages.

The Parties confirm that the express remedies and measures of damages provided in this REPA satisfy the essential purposes hereof. If no remedy or measure of damages is expressly herein provided, the obligor's liability shall be limited to direct, actual damages only. EXCEPT AS MAY BE INCLUDED IN ANY CALCULATION OF. LIQUIDATED DAMAGES, TOTAL REPLACEMENT ENERGY COSTS OR RESALE COSTS, NEITHER PARTY SHALL BE LIABLE TO THE OTHER PARTY FOR PUNITIVE, EXEMPLARY CONSEQUENTIAL. INCIDENTAL. OR INDIRECT DAMAGES. LOST PROFITS OR OTHER BUSINESS INTERRUPTION DAMAGES BY STATUTE, IN TORT OR CONTRACT (EXCEPT TO THE EXTENT EXPRESSLY PROVIDED HEREIN): PROVIDED. THAT IF EITHER PARTY IS HELD LIABLE TO A THIRD PARTY FOR SUCH DAMAGES AND THE PARTY HELD LIABLE FOR SUCH DAMAGES IS ENTITLED TO INDEMNIFICATION THEREFORE FROM THE OTHER PARTY HERETO, THE INDEMNIFYING PARTY SHALL BE LIABLE FOR, AND OBLIGATED TO REIMBURSE THE INDEMNIFIED PARTY FOR. SUCH DAMAGES: PROVIDED, FURTHER THAT LOSS OF BENEFICIAL ENVIRONMENTAL INTERESTS SHALL NOT BE CONSIDERED CONSEQUENTIAL DAMAGES. To the extent any damages required to be paid hereunder are liquidated, the Parties acknowledge that the damages are difficult or impossible to determine, that otherwise obtaining an adequate remedy is inconvenient, and that the liquidated damages constitute a reasonable approximation of the harm or loss.

#### 12.9 Payment of Damages.

Without limiting any other provisions of this Article 12 and at any time before or after termination of this REPA, the non-defaulting Party may send the other Party an invoice for such damages (including, if applicable, Delay Damages) or other amounts as are due to the non-defaulting Party at such time from the defaulting Party under this REPA and such invoice shall be payable in the manner, and in accordance with the applicable provisions, set forth in Article 9, including the provision for late payment charges. In the case of damages owed by Seller to Purchaser, Purchaser may, subject to the provisions of Section 11.1, withdraw funds from the Seller Security Fund, as needed to provide payment for such invoice if the invoice is not paid by Seller on or before the following the invoice due date.

#### 12.10 Duty to Mitigate.

Each Party agrees that it has a duty to mitigate damages and covenants that it will use commercially reasonable efforts to minimize any damages it may incur as a result of the other Party's performance or non-performance of the REPA.

# ARTICLE 13 CONTRACT ADMINISTRATION AND NOTICES

#### 13.1 Notices in Writing.

Notices required by this REPA shall be addressed to the other Party, including the other Party's representative on the Contract Administration Committee, at the addresses noted in Exhibit D as either Party updates them from time to time by written notice to the other Party. Any notice, request, consent, or other communication required or authorized under this REPA to be given by one Party to the other Party shall be in writing. It shall either be hand delivered or mailed, postage prepaid, to the representative of said other Party. If mailed, the notice, request, consent or other communication shall be simultaneously sent by facsimile or other electronic means. Any such notice, request, consent, or other communication shall be deemed to have been received by the Close of the Business Day on which it was hand delivered or transmitted electronically (unless hand delivered or transmitted after such close in which case it shall be deemed received at the close of the next Business Day). Real-time or routine communications concerning Facility operations shall be exempt from this Section.

#### 13.2 <u>Representative for Notices</u>.

Each Party shall maintain a designated representative to receive notices. Such representative may, at the option of each Party, be the same person as that Party's representative or alternate representative on the Contract Administration Committee, or a different person. Either Party may, by written notice to the other Party, change the representative or the address to which such notices and communications are to be sent.

#### 13.3 Authority of Representatives.

The Parties' representatives designated above shall have authority to act for its respective principals in all technical matters relating to performance of this REPA and to attempt to resolve disputes or potential disputes. However, they, in their capacity as representatives, shall not have the authority to amend or modify any provision of this REPA.

#### 13.4 Operating Records.

Seller and Purchaser shall each keep complete and accurate records and all other data required by each of them for the purposes of proper administration of this REPA, including such records as may be required by state or federal regulatory authorities and the Transmission Operator in the prescribed format.

#### 13.5 Operating Log.

Seller shall maintain an accurate and up-to-date operating log, in electronic format, at the Facility with records of production for each Clock Hour; changes in operating status; Scheduled Outages/Deratings and Forced Outages for the purposes

of proper administration of this REPA, including such records as may be required by state or federal regulatory authorities and the Transmission Operator in the prescribed format.

# 13.6 Billing and Payment Records.

To facilitate payment and verification, Seller and Purchaser shall keep all books and records necessary for billing and payments in accordance with the provisions of Article 9 and grant the other Party reasonable access to those records. All records of Seller pertaining to the operation of a Facility shall be maintained on the premises of the Facility. For audit and verification purposes, Seller will grant Purchaser read-only access to the PJM eSuite accounts for the node associated with the PJM charges and credits for the Renewable Energy Products from Purchaser's Contract Capacity Share of the Facility Capacity.

# 13.7 Examination of Records.

Seller and Purchaser may examine the financial and Operating Records and data kept by the other Party relating to transactions under and administration of this REPA, at any time during the period the records are required to be maintained, upon request and during normal business hours.

# 13.8 Exhibits.

Either Party may change the information for their notice addresses in Exhibit D at any time upon written notice to but without the approval of the other Party. Exhibit C may only be changed in accordance with Section 20.4. Exhibit E may be changed in accordance with Section 16.2(B). All other Exhibits may only be modified by the mutual agreement of Seller and Purchaser.

# 13.9 Dispute Resolution.

Except as otherwise expressly provided in this REPA, in the (A) event of any dispute, controversy or claim arising under this REPA (a "Dispute"), within ten (10) Days following the delivered date of a written request by either Party (a "Dispute Notice"), (i) each Party shall appoint a representative (individually, a "Party Representative", together, the "Parties' Representatives"), and (ii) the Parties' Representatives shall meet, negotiate and attempt in good faith to resolve the Dispute guickly, informally and inexpensively. In the event the Parties' Representatives cannot resolve the Dispute within thirty (30) Days after commencement of negotiations, within ten (10) Days following any request by either Party at any time thereafter, each Party Representative (I) shall independently prepare a written summary of the Dispute describing the issues and claims, (II) shall exchange its summary with the summary of the Dispute prepared by the other Party Representative, and (III) shall submit a copy of both summaries to a senior officer of the Party Representative's Party with authority to irrevocably bind the Party to a resolution of the Dispute. Within ten (10) Business Days after receipt of the Dispute summaries, the senior officers for both Parties shall negotiate in good faith to resolve the Dispute. If the Parties are unable to resolve the

Dispute within fourteen (14) Days following receipt of the Dispute summaries by the senior officers, either Party may seek available legal remedies.

(B) Seller and Purchaser each hereby knowingly, voluntarily and intentionally waive any rights they may have to a trial by jury in respect of any litigation based hereon, or arising out of, under, or in connection with, this REPA or any course of conduct, course of dealing, statements (whether oral or written) or actions of Seller and Purchaser related hereto and expressly agree to have any disputes arising under or in connection with this REPA be adjudicated by a judge of the court having jurisdiction without a jury.

#### ARTICLE 14 FORCE MAJEURE

### 14.1 Definition of Force Majeure.

The term "Force Majeure", as used in this REPA, means any (A) event which wholly or partly prevents or delays the performance of any obligation arising under this REPA, but only if and to the extent (i) such event is not within the reasonable control, directly or indirectly, of the Party affected, (ii) such event, despite the exercise of reasonable diligence, cannot be prevented, avoided or overcome by such Party, (iii) the Party affected has taken all reasonable precautions and measures pursuant to Good Utility Practices in order to avoid the effect of such event on such Party's ability to perform its obligations under this REPA and to mitigate the consequences thereof, and (iv) such event is not the direct or indirect result of a Party's negligence or the failure of such Party to perform any of its obligations under this REPA or to comply with Applicable Law. A Force Majeure Event may include, but is not limited to, any of the following (but only if and to the extent such event meets the requirements of (i) – (iv) above): (a) acts of God or the public enemy, war, whether declared or not, blockade, insurrection, riot, civil disturbance, public disorders, rebellion, violent demonstrations, revolution, sabotage or terrorist action; (b) any effect of unusual natural elements, including fire, subsidence, earthquakes, floods, lightning, tornadoes, unusually severe storms, or similar cataclysmic occurrence or other unusual natural calamities; (c) environmental and other contamination at or affecting the Facility; (d) explosion, accident or epidemic; (e) governmental action or inaction; (f) general strikes. lockouts or other collective or industrial action by workers or employees, or other labor difficulties; (g) the unavailability of labor, fuel, power or raw materials, the breakdown of the Facility or other plant breakdown or equipment failure, and any event affecting the ability of any supplier (including under any engineering, procurement or construction agreement for the Facility) to the Facility to fulfill its obligations to Seller and the Facility so long as, in each case, the cause thereof otherwise would qualify as a Force Majeure; (h) accidents of navigation or breakdown or injury of vessels, accidents to harbors, docks, canals or other assistances to or adjuncts of shipping or navigation, or guarantine; (i) nuclear emergency, radioactive contamination or ionizing radiation or the release of any hazardous waste or materials; and (i) air crash, shipwreck, train wrecks or other failures or delays of transportation; provided, however, that the lack of money,

changes in market conditions, and those items expressly excluded in Section 14.1(B), below, shall not constitute a Force Majeure.

(B) The term Force Majeure does not include the inability or failure of Purchaser to obtain transmission service and the unavailability, interruption or curtailment of transmission service, all of which are expressly addressed under other provisions of this REPA.

14.2 Applicability of Force Majeure.

(A) Other than as set forth in Section 14.3, neither Party shall be responsible or liable for any delay or failure in its performance under this REPA, nor shall any delay, failure, or other occurrence or event become an Event of Default, to the extent such delay, failure, occurrence or event is substantially caused by conditions or events of Force Majeure, provided that:

(1) the non-performing Party gives the other Party prompt written notice describing the particulars of the occurrence of the Force Majeure;

(2) the suspension of performance is of no greater scope and of no longer duration than is required by the Force Majeure;

(3) the non-performing Party proceeds with reasonable diligence to remedy its inability to perform and provides weekly progress reports to the other Party describing actions taken to end the Force Majeure; and

(4) when the non-performing Party is able to resume performance of its obligations under this REPA, that Party shall give the other Party prompt written notice to that effect.

(B) Except as otherwise expressly provided for in this REPA, the existence of a condition or event of Force Majeure shall not relieve the Parties of their obligations under this REPA (including payment obligations) to the extent that performance of such obligations is not precluded by the condition or event of Force Majeure.

# 14.3 Limitations on Effect of Force Majeure.

In no event will any delay or failure of performance caused by any conditions or events of Force Majeure extend this REPA beyond its stated Term. In the event that any delay or failure of performance caused by conditions or events of Force Majeure prevents the performance of a Party's obligations hereunder in any material respect and continues for an uninterrupted period of **Constant Section 14.2(A)**, the Party not claiming Force Majeure may, at any time following the end of such **Constant Section 14.2(A)**, the Party not claiming period, terminate this REPA upon written notice to the affected Party, without further obligation by either Party except as to costs and balances incurred prior to the effective date of such termination. The Party not claiming Force Majeure may, but shall
not be obligated to, extend such **additional time as it, at its sole discretion, deems appropriate, if the affected Party is exercising due diligence in its efforts to cure the conditions or events of Force Majeure.** 

### ARTICLE 15 REPRESENTATIONS, WARRANTIES AND COVENANTS

### 15.1 Seller's Representations, Warranties and Covenants.

Seller hereby represents and warrants as follows as of the date hereof:

(A) Seller is a limited liability company duly organized, validly existing and in good standing under the laws of the State of Delaware. Seller is qualified to do business in each other jurisdiction where the failure to so qualify would have a material adverse effect on the business or financial condition of Seller; and Seller has all requisite power and authority to conduct its business, to own its assets, and to execute, deliver, and perform its obligations under this REPA.

(B) The execution, delivery, and performance of its obligations under this REPA by Seller have been duly authorized by all necessary limited liability company action, and do not and will not

(1) violate any provision of law, rule, regulation, order, writ, judgment, injunction, decree, determination, or award currently in effect having applicability to Seller or violate any provision in any formation documents of Seller, the violation of which could have a material adverse effect on the ability of Seller to perform its obligations under this REPA;

(2) result in a breach or constitute a default under Seller's formation documents or bylaws, or under any agreement relating to the management or affairs of Seller or any indenture or loan or credit agreement, or any other agreement, lease, or instrument to which Seller is a party or by which Seller or its assets may be bound or affected, the breach or default of which could reasonably be expected to have a material adverse effect on the ability of Seller to perform its obligations under this REPA; or

(3) result in, or require the creation or imposition of any mortgage, deed of trust, pledge, lien, security interest, or other charge or encumbrance of any nature (other than as may be contemplated by this REPA) upon or with respect to any of the assets of Seller now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to have a material adverse effect on the ability of Seller to perform its obligations under this REPA.

(C) This REPA is a valid and binding obligation of Seller.

(D) The execution and performance of this REPA will not conflict with or constitute a breach or default under any contract or agreement of any kind to

which Seller is a party or any judgment, order, statute, or regulation that is applicable to Seller or the Facility.

(E) To the knowledge of Seller, all permits, consents, approvals, licenses, authorizations, or other action required by any Governmental Authority to authorize Seller's execution, delivery and performance of this REPA have been duly obtained and are in full force and effect.

### 15.2 Purchaser's Representations, Warranties and Covenants.

Purchaser hereby represents and warrants as follows as of the date hereof:

(A) Purchaser is a corporation duly organized, validly existing and in good standing under the laws of the State of Kentucky and is qualified in each other jurisdiction where the failure to so qualify would have a material adverse effect upon the business or financial condition of Purchaser; and Purchaser has all requisite power and authority to conduct its business, to own its properties, and to execute, deliver, and perform its obligations under this REPA.

(B) The execution, delivery, and performance of its obligations under this REPA by Purchaser have been duly authorized by all necessary corporate action, and do not and will not:

(1) require any consent or approval of Purchaser's Board of Directors, or shareholders, other than that which has been obtained and is in full force and effect (evidence of which shall be delivered to Seller upon its request);

(2) violate any provision of law, rule, regulation, order, writ, judgment, injunction, decree, determination, or award currently in effect having applicability to Purchaser or violate any provision in any corporate documents of Purchaser, the violation of which could have a material adverse effect on the ability of Purchaser to perform its obligations under this REPA;

(3) result in a breach or constitute a default under Purchaser's corporate charter or bylaws, or under any agreement relating to the management or affairs of Purchaser, or any indenture or loan or credit agreement, or any other agreement, lease, or instrument to which Purchaser is a party or by which Purchaser or its properties or assets may be bound or affected, the breach or default of which could reasonably be expected to have a material adverse effect on the ability of Purchaser to perform its obligations under this REPA; or

(4) result in, or require the creation or imposition of, any mortgage, deed of trust, pledge, lien, security interest, or other charge or encumbrance of any nature (other than as may be contemplated by this REPA) upon or with respect to any of the assets or properties of Purchaser now owned or hereafter acquired, the creation or imposition of which could reasonably be expected to have a material adverse effect on the ability of Purchaser to perform its obligations under this REPA. (C) This REPA is a valid and binding obligation of Purchaser.

(D) The execution and performance of this REPA will not conflict with or constitute a breach or default under any contract or agreement of any kind to which Purchaser is a party or any judgment, order, statute, or regulation that is applicable to Purchaser.

### ARTICLE 16 INSURANCE

### 16.1 Evidence of Insurance.

Within ten (10) days following execution of this REPA, and as soon as practicable after the end of each fiscal year or at the renewal of the insurance policy and in any event within thirty (30) days thereafter, Seller shall provide Purchaser insurance certificates executed by each insurer or by an authorized representative of each insurer evidencing that insurance coverages for the Facility are in compliance with the specifications for insurance coverage set forth in Exhibit E to this REPA. Such certificates shall (a) name Purchaser as an additional insured on all policies required (except worker's compensation and employer's liability); (b)

(c) provide a waiver of any rights of subrogation against Purchaser, its Affiliates and their officers, directors, agents, subcontractors, and employees; and (d) indicate that the Commercial General Liability policy has been endorsed as described above. All policies shall be procured and maintained through insurance companies licensed to do business as required by applicable law in the state where the Facility located and is rated All policies shall be primary as respects any claims, losses, damages, expenses or liabilities arising out of this REPA and insured hereunder, and any insurance carried by Purchaser shall be excess and noncontributing with insurance afforded by these policies. Seller's liability under this REPA is not limited to the amount of insurance coverage required herein.

### 16.2 <u>Term and Modification of Insurance</u>.

(A) All insurance required under this REPA shall cover occurrences during the Term and for a period of **All insurance as required herein** is commercially available only on a "claims-made" basis, such insurance shall provide for a retroactive date not later than the date of this REPA and such insurance shall be maintained by Seller, with a retroactive date

not later than the retroactive date required above, for a minimum of

(B) If any insurance required to be maintained by Seller hereunder ceases to be reasonably available and commercially feasible in the commercial insurance market, Seller shall provide written notice to Purchaser, accompanied by a certificate from an independent insurance advisor of recognized national standing, certifying that such insurance is not reasonably available and commercially feasible in the commercial insurance market for electric generating plants of similar type, geographic location and design. Upon receipt of such notice, Purchaser shall not unreasonably withhold its consent to modify or waive such requirement.

### ARTICLE 17 INDEMNITY







(A) Each Party shall at all times comply with all laws, ordinances, rules, and regulations applicable to it, except for any non-compliance which, individually or in the aggregate, could not reasonably be expected to have a material effect on the business or financial condition of the Party or its ability to fulfill its commitments hereunder. As applicable, each Party shall give all required notices, shall procure and maintain all governmental permits, licenses, and inspections necessary for performance of this REPA, and shall pay its respective charges and fees in connection therewith.

(B) Each Party shall cooperate with the other Party in providing such information as may be reasonably requested, to the extent permitted by applicable law and subject to such confidentiality and use limitations as the providing Party may reasonably require, to the extent that the requesting Party requires the same in order to fulfill any regulatory reporting requirements, or to assist the requesting Party in litigation, including administrative proceedings before utility regulatory commissions.

(C) Upon permanent cessation of generation of Renewable Energy from the Facility, Seller shall decommission the Facility, remove the Facility and remediate the Site as, if and when required by law.



### ARTICLE 19 ASSIGNMENT, SUBCONTRACTING, AND FINANCING

19.2 Accommodation of Facility Debt Representative.

Purchaser shall make reasonable efforts to provide such consents to assignments, certifications, representations, information or other documents as may be reasonably requested by Seller or the Facility Debt Representative in connection with the financing of the Facility, which shall include providing Facility Debt Representative with the protections contained in the form of Consent and Assignment attached hereto as Exhibit M (the "Consent and Agreement") and providing the Facility Debt Representative with an opinion of in-house counsel limited to enforceability, non-contravention and corporate housekeeping matters; provided, that in responding to any such request, Purchaser shall have no obligation to provide any consent or opinion, or enter into any agreement (other than as provided in the Consent and Assignment), that materially adversely affects any of Purchaser's rights, benefits, risks and/or obligations under this REPA. Seller shall reimburse, or shall cause the Facility Debt Representative to reimburse, Purchaser for the incremental direct expenses (including the reasonable

fees and expenses of counsel) incurred by Purchaser in the preparation, negotiation, execution and/or delivery of any documents requested by Seller or the Facility Debt Representative, and provided by Purchaser, pursuant to this Section 19.2.

#### 19.3 Notice of Facility Debt Representative Action.

Within ten (10) Days following Seller's receipt of each written notice from the Facility Debt Representative of default, or Facility Debt Representative's intent to exercise any remedies, under the Financing Documents, Seller shall deliver a copy of such notice to Purchaser.

### 19.4 Transfer Without Consent is Null and Void.

Any sale, transfer, or assignment of this REPA made without fulfilling the requirements of the REPA shall be null and void and shall constitute an Event of Default pursuant to Article 12.

#### 19.5 <u>Subcontracting</u>.

Seller may subcontract its duties or obligations under this REPA without the prior written consent of Purchaser, provided, that no such subcontract shall relieve Seller of any of its duties or obligations hereunder.

#### ARTICLE 20 MISCELLANEOUS

### 20.1 <u>Waiver</u>.

Subject to the provisions of Section 13.9(B), the failure of either Party to enforce or insist upon compliance with or strict performance of any of the terms or conditions of this REPA, or to take advantage of any of its rights there under, shall not constitute a waiver or relinquishment of any such terms, conditions, or rights, but the same shall be and remain at all times in full force and effect.

20.2 <u>Taxes</u>. Seller shall pay or cause to be paid (and shall indemnify and hold Purchaser harmless from and against) all sales, use, excise, ad valorem, transfer and other similar taxes, but excluding in all events taxes based on or measured by net income, that are imposed by any taxing authority (individually, a "Tax" and collectively, "Taxes") on or with respect to the sale of Energy incurred prior to the delivery of the Energy to the Point of Delivery. Purchaser shall pay or cause to be paid (and shall indemnify and hold Seller harmless from and against) all Taxes on or with respect to the sale of Energy to the Point of Delivery and after the delivery of Energy to the Point of Delivery and after the delivery of Energy to the Point of Delivery and after the delivery of Energy to the Point of Delivery and after the delivery of Energy to the Point of Delivery and all Taxes associated with the Renewable Energy Credits. If a Party is required to remit or pay Taxes that are the other Party's responsibility hereunder, the responsible Party shall promptly reimburse the other for such Taxes. Both Parties shall use reasonable efforts to administer this REPA and implement the provisions in accordance with their intent to minimize Taxes for which each is responsible hereunder. In the event any of the sales of Energy or Renewable Energy Credits hereunder are exempt or

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excluded from any particular Tax(es) payable by Purchaser, Purchaser shall provide Seller with all necessary documentation within thirty (30) days after the execution of this REPA to evidence such exemption or exclusion (or, with regard to any such Tax(es) enacted after the Effective Date, Purchaser shall provide Seller with such documentation before the date on which the enactment requires the delivery of documentation to Seller in order to effect an exclusion or exemption from such Tax(es)). In the event Purchaser does not provide such documentation, then Purchaser shall indemnify, defend and hold Seller harmless from any liability with respect to Tax(es) to which Purchaser is exempt or excluded.

### 20.3 Fines and Penalties.

(A) Seller shall pay when due all fees, fines, penalties or costs to the extent incurred by Seller or its agents, employees or contractors for noncompliance by Seller, its employees, or subcontractors with any provision of this REPA, or any contractual obligation, permit or requirements of law except for such fines, penalties and costs that are being actively contested in good faith and with due diligence by Seller and for which adequate financial reserves have been set aside to pay such fines, penalties or costs in the event of an adverse determination.

(B) If fees, fines, penalties, or costs are claimed or assessed against either Party by any Governmental Authority or PJM due to noncompliance by the other Party with this REPA, any requirements of law with which compliance is required by this REPA, any permit or contractual obligation, or, if the work of the other Party or any of its contractors or subcontractors is delayed or stopped by order of any Governmental Authority or PJM due to the other Party's noncompliance with any requirements of law with which compliance is required by this REPA, permit, or contractual obligation, penalized Party shall indemnify and hold other Party harmless against any and all reasonable losses, liabilities, damages, and claims suffered or incurred by other Party, including claims for indemnity or contribution made by third parties against other Party, except to the extent other Party recovers any such losses, liabilities or damages through other provisions of this REPA.

### 20.4 Rate Changes.

The terms and conditions and the rates for service specified in this REPA shall remain in effect for the term of the transaction described herein. Absent the Parties' written agreement, this REPA shall not be subject to change by application of either Party pursuant to Section 205 or 206 of the Federal Power Act.

Absent the agreement of all parties to the proposed change, the standard of review for changes to this REPA whether proposed by a Party, a non-party, or the Federal Energy Regulatory Commission acting sua sponte shall be the "public interest" standard of review set forth in United Gas Pipe Line v. Mobile Gas Service Corp., 350 U.S. 332 (1956) and Federal Power Commission v. Sierra Pacific Power Co., 350 U.S. 348 (1956) (the "Mobile-Sierra doctrine"), or such other standard of review permissible

to preserve the intent of the parties pursuant to this Section to uphold the sanctity of contracts without modification.

### 20.5 Disclaimer of Third Party Beneficiary Rights.

Nothing in this REPA shall be construed to create any duty to, or standard of care with reference to, or any liability to, any person not a party to this REPA.

### 20.6 Relationship of the Parties.

(A) This REPA shall not be interpreted to create an association, joint venture, or partnership between the Parties nor to impose any partnership obligation or liability upon either Party. Neither Party shall have any right, power, or authority to enter into any agreement or undertaking for, or act on behalf of, or to act as an agent or representative of, the other Party.

(B) Seller shall be solely liable for the payment of all wages, taxes, and other costs related to the employment of persons to perform such services, including all federal, state, and local income, social security, payroll, and employment taxes and statutorily mandated workers' compensation coverage. None of the persons employed by Seller shall be considered employees of Purchaser for any purpose; nor shall Seller represent to any person that he or she is or shall become a Purchaser employee.

### 20.7 Equal Employment Opportunity Compliance Certification.

Seller acknowledges that as a government contractor Purchaser is subject to various federal laws, executive orders, and regulations regarding equal employment opportunity and affirmative action. These laws may also be applicable to Seller as a subcontractor to Purchaser. Seller shall comply with all applicable equal opportunity and affirmative action federal laws, executive orders, and regulations, including, if applicable, 41 C.F.R. §60-1.4(a)(1-7).

### 20.8 Survival of Obligations.

Cancellation, expiration, or earlier termination of this REPA shall not relieve the Parties of obligations that by their nature should survive such cancellation, expiration, or termination, prior to the term of the applicable statute of limitations, including warranties, remedies, or indemnities, which obligations shall survive for the period of the applicable statute(s) of limitation.

### 20.9 Severability.

In the event any of the terms, covenants, or conditions of this REPA, its Exhibits, or the application of any such terms, covenants, or conditions, shall be held invalid, illegal, or unenforceable by any court or administrative body having jurisdiction, all other terms, covenants, and conditions of the REPA and their application not adversely affected thereby shall remain in force and effect.

### 20.10 Complete Agreement; Amendments.

The terms and provisions contained in this REPA constitute the entire agreement between Purchaser and Seller with respect to the Facility and shall supersede all previous communications, representations, or agreements, either verbal or written, between Purchaser and Seller with respect to the sale of Renewable Energy Products from and associated with the Facility. This REPA may be amended, changed, modified, or altered, provided that such amendment, change, modification, or alteration shall be in writing and signed by both Parties hereto.

### 20.11 Binding Effect.

This REPA, as it may be amended from time to time pursuant to this Article, shall be binding upon and inure to the benefit of the Parties hereto and their respective successors-in-interest, legal representatives, and assigns permitted hereunder.

### 20.12 Headings.

Captions and headings used in this REPA are for ease of reference only and do not constitute a part of this REPA.

### 20.13 Counterparts.

This REPA may be executed in any number of counterparts, and each executed counterpart shall have the same force and effect as an original instrument.

### 20.14 Governing Law; Consent to Jurisdiction; Waiver of Jury Trial.

The interpretation and performance of this REPA and each of its provisions shall be governed and construed in accordance with the laws of the State of New York, without regard to its conflicts of laws provisions.





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# IN WITNESS WHEREOF, the Parties have executed this REPA.

Seller:

FPL ENERGY ILLINOIS WIND, LLC

By: Mu

Purchaser:

# KENTUCKY POWER COMPANY

By:

HOUSTON\2337099.7

Signature Page Lee-Dekalb REPA

# IN WITNESS WHEREOF, the Parties have executed this REPA.

Seller:

FPL ENERGY ILLINOIS WIND, LLC

By: \_\_\_\_\_

**Purchaser:** 

### KENTUCKY POWER COMPANY

By: Millel & CEO, Kentheren Power Company

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### EXHIBIT B

### FACILITY DESCRIPTION AND SITE MAPS

This Exhibit B is conceptual. A final "as-built" Exhibit B will be completed and attached to this REPA in place hereof after the Facility is completed.

Seller intends to build, own and operate a wind project with a total capacity not to exceed approximately 217.5 MW. The Facility will be located in Lee and Dekalb counties, Illinois and will be interconnected to the 138kV Steward to Waterman transmission line. The Facility will generate electrical power to be sold in the wholesale market.

As presently planned, the Facility will consist of:

- One hundred forty-five (145) GE 1.5 XLE Wind Turbines on 80-meter tubular steel towers for the Facility (each individual Wind Turbine having a nameplate capacity rating of approximately 1500 kW).
- A network of several miles of low profile, gravel field roads providing access to Wind Turbines
- Electrical transformation equipment located at the Facility.
- An underground and aboveground fiber-optic data collection system.
- o Maintenance and field office

B-1

### **EXHIBIT C**

### CONTRACT RATE (\$ Per MWh)

The Contract Rate for Monday through Friday excluding NERC Holidays shall be the amount set forth in the table below for the applicable hour:

|   |   |  |          |      | 122.53 |  |  |       |             |  |
|---|---|--|----------|------|--------|--|--|-------|-------------|--|
|   | Ī |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  | 4.4   |             |  |
| , |   |  | S. S. A. |      |        |  |  |       |             |  |
|   |   |  |          | 2.05 |        |  |  |       | ASS VEAS    |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  | 19422 - 2013<br>1963 - 2014<br>1963 - 2014 |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       | <b>教教 務</b> |  |
|   |   |  |          |      |        |  |  | 1.000 |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  | THE REAL PROPERTY OF                       |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |
|   |   |  |          |      |        |  |  |       |             |  |

Beginning January 1, 2012, and on each January 1 thereafter for the remainder of the Term, rates will be increased by 2.25% over the rates for the previous calendar year.

The Contract Rate for Saturdays, Sundays, and all NERC Holidays shall be the amount set forth in the table below for the applicable hour:

|   |   |   |     | 574   |      |      |                                 |       |       |       |                    |        |
|---|---|---|-----|---|------|------|---------------------------------|-------|-------|-------|--------------------|--------|
|   |   |   |     |   |      |      |                                 |       |       |       |                    |        |
|   |   |   |     |   |      |      |                                 |       | 14.5  |       |                    |        |
|   |   |   | 國際  |   | A    |      |                                 |       |       |       |                    |        |
|   |   |   |     |   | Mass |      |                                 |       |       |       |                    |        |
|   |   |   |     |   |      | K. A |                                 | 9     |       |       |                    |        |
|   |   |   |     |   |      |      | 241 2412                        | 19222 | 10000 |       |                    |        |
|   |   |   |     |   |      |      |                                 |       | 1200  |       | 1.3.132<br>1.1.132 |        |
|   | A |   |     |   |      |      |                                 |       | NASS. |       | 4-33g              |        |
|   |   | $\mathbb{R}^{\times}_{\mathbb{R}^{\times}}$ h |     |   |      |      | 開設                              |       |       | 18225 | 9.3                | 124455 |
|   |   |   |     |   |      |      |                                 |       |       |       |                    | 1      |
|   | 题 |   | 创新的 |   |      |      |                                 |       | 1.1   |       |                    |        |
|   |   |   |     |   |      |      |                                 |       |       |       |                    |        |
|   |   |   |     |   |      |      |                                 |       |       |       |                    |        |
|   |   |   |     |   |      |      |                                 |       |       | No.33 |                    |        |
|   |   |   |     |   |      |      |                                 |       |       |       |                    |        |
|   |   |   |     |   |      |      |                                 |       |       |       |                    |        |
|   |   |   |     |   |      |      |                                 |       |       |       |                    |        |
|   |   |   |     | 國語  |      |      | $(f^{*}_{i})_{i\in \mathbb{N}}$ |       | 11.10 |       |                    |        |
|   |   |   |     |   |      |      |                                 |       |       |       |                    |        |
|   |   |   |     |   |      |      |                                 |       |       |       |                    |        |
|   |   |   |     |   |      |      |                                 |       |       |       |                    |        |
|   |   |   |     |   |      |      |                                 |       |       |       |                    | 14.    |
|   |   |   |     | 2. 1. 2. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.   |      |      |                                 |       |       |       |                    |        |
| L |   |   |     | -Agental<br>Magazini  |      |      |                                 |       |       |       |                    |        |
|   |   |   |     |   |      |      |                                 |       |       |       |                    |        |
|   |   |   |     | na ann an Airtean<br>An Airtean Airte |      |      |                                 |       |       |       |                    |        |

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### EXHIBIT D

### **NOTICE ADDRESSES**

# Page 1 of 1

| Purchaser   | Seller  |  |  |  |  |
|---|---|--|--|--|--|
| Notices:  | Notices:  |  |  |  |  |
| Kentucky Power Company<br>C/O American Electric Power Service Corporation<br>155 West Nationwide Boulevard<br>Columbus, OH 43215<br>Attn: Contract Administration<br>Fax:(614) 583-1606   | FPL Energy Illinois Wind, LLC<br>c/o NextEra Energy, LLC<br>700 Universe Boulevard<br>Juno Beach, FL 33408<br>Attn: Vice President, Renewables Business<br>Management   |  |  |  |  |
| with copies to:   | with copies to:   |  |  |  |  |
| American Electric Power Service Corporation<br>155 West Nationwide Boulevard<br>Columbus, OH 43215<br>Attn: Director, Credit Risk Department<br>Fax: (614) 583-1604   | FPL Energy Illinois Wind, LLC<br>c/o NextEra Energy, LLC<br>700 Universe Boulevard<br>Juno Beach, FL 33408<br>Attn: General Counsel   |  |  |  |  |
| and   | and   |  |  |  |  |
| Attn: Chief Counsel, CO&L<br>American Electric Power Service Corporation<br>155 West Nationwide Boulevard<br>Columbus, OH 43215<br>Attn: Chief Counsel<br>Fax: (614) 583-1603   | FPL Group Capital Inc.<br>700 Universe Boulevard<br>Juno Beach, FL 33408<br>Attn: Treasurer   |  |  |  |  |
| Contract Administration Committee<br>Representative:<br>Jay Godfrey<br>(614) 583-6162<br>jfgodfrey@aep.com<br>Alternate: To be designated in writing by<br>Purchaser at or prior to the first meeting of the<br>Contract Administration Committee | Contract Administration Committee<br>Representative:<br>FPL Energy Illinois Wind, LLC<br>c/o NextEra Energy, LLC<br>700 Universe Boulevard<br>Juno Beach, FL 33408<br>Attn: Vice President, Renewables Business<br>Management |  |  |  |  |

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### **EXHIBIT E**

# **INSURANCE COVERAGE**

# SPECIFICATION OF INSURANCE COVERAGE



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# EXHIBIT F

# [INTENTIONALLY DELETED]

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### EXHIBIT G

## POINT OF DELIVERY

This Exhibit G is conceptual. A final "as-built" Exhibit G will be completed and attached to this REPA in place hereof after the Facility is completed.

### Conceptual One-Line Diagram Lee/Dekalb Wind Farm (Not to be used for actual Design or Construction)



Figure 1. Interconnection Single Line Diagram

### EXHIBIT H

Requirements Specification Real Time Data Requirements for Wind Farms



American Electric Power Requirements Specification

Real Time Data Requirements for Wind Farms

Version 1.5

1. Purpose

The purpose for real time data from the Wind Farm SCADA system to AEP's Generation Control System is to enable AEP to utilize detailed on-site project information, such as individual measured turbine wind speeds and production, in order to produce the most accurate generation forecast for the wind farm and to optimize integration of the wind generation into the electric power grid.

2. Required Wind Farm SCADA Information

Data must be collected by the wind farm SCADA system and transmitted to AEP at a minimum refresh rate of once every 30 seconds. Minimum required SCADA information includes the following:

- Total wind farm output (instantaneous MW / MVAR and pulse accumulator MWH / MVARH), which should come from the same metering that the interconnect agreement stipulates
- ii. Meteorological Tower Data from at least 2 met towers:
  - a) Temperature
  - b) Pressure
  - c) Relative Humidity
  - d) Wind Speed
  - e) Wind Direction
- iii. Per Turbine Information:
  - a) Output (in kW and kVAR)
  - b) Wind Speed (in m/s or mph, with at least one decimal point resolution)
  - c) Wind Direction (in degrees)
    - 1. Alternatively, turbine yaw (in degrees) and wind deviation (in degrees)
  - d) Status
    - 1. Ready to generate, but wind speed too low
    - 2. Ready to generate, but wind speed too high
    - 3. Online and generating
    - 4. Offline due to scheduled outage, or unplanned outage
- 3. Data Communication to AEP

Data communication of the required wind farm SCADA information to AEP must include one or more communication paths to AEP's information systems: 1) to an AEP RTU, AEP PC or a remote AEP data collection system (which could include satellite), for metering data (item 2-i above) and 2) with a TCP/IP network connection to a PC, which will be owned and maintained by AEP and located at the wind farm site, for SCADA information (items 2-ii and 2-iii above). AEP will be responsible for the cost and installation of the telecommunication lines and equipment from the AEP RTU, the AEP PC or the remote data collection system to AEP's information systems. The wind farm owner must be responsible for any telecommunications from the wind farm SCADA to the AEP RTU and AEP PC.

a) Communication to an AEP RTU at the wind farm site (or to a remote AEP data collection system) should be accomplished using an industry standard interface,

both in hardware interface and in software protocol, that can be supported by an AEP RTU. At a minimum, AEP RTUs support RS232 hardware, using either Modbus or DNP protocol, although there may be other hardware interfaces (such as Ethernet) and software protocols that can be utilized.

b) Communication to AEP using a PC located at the site and a dedicated TCP/IP network connect should use an industry standard protocol (such as OPC or Modbus TCP, where the AEP PC would be an OPC/Modbus client that collects data from an OPC/Modbus server) to communicate the point data from the wind farm SCADA to the AEP PC.

Seller must provide server rack/UPS and space in facility substation server room for Purchaser's on-site server and other related communications equipment.

4. Point-to-point check out

The SCADA vendor will be required to perform a point-by-point data checkout, verifying that each point is properly transmitted to the AEP RTU and AEP PC. All metering, communications and point-to-point check out must be completed prior to the Commercial Operation Milestone.

| Data   | Units                        |
|--|------------------------------|
| Turbine Data<br>For each turbine (n = 1 to number of turbines at site) |                              |
| Turbine n Nacelle Wind Speed   | m/s                          |
| Turbine n Nacelle position   | deg                          |
| Turbine n Wind Deviation   | deg                          |
| Turbine n Turbine Power  | kVV                          |
| Turbine n BladeAngle 1 - Actual  | deg                          |
| Turbine n BladeAngle 2 - Actual  | deg                          |
| Turbine n BladeAngle 3 - Actual  | deg                          |
| Turbine n Turbine Status   | See below for turbine status |

| Met Data<br>For each Met Tower (n = 1 to number of Met Towers at site) |       |
|--|-------|
| Met n Wind Speed (multiple points if multiple heights are available)   | · m/s |
| Met n Wind Direction   | deg   |
| Met n Ambient Temperature  | deg C |
| Met n Barometric Pressure  | . mB  |
| Met n Humidity   | %     |

| Turbine Status.   |   |
|---|---|
| 1. Ready to generate, but wind speed too low            |   |
| 2. Ready to generate, but wind speed too high           | • |
| 3. Online and generating                                |   |
| 4. Offline due to scheduled outage, or unplanned outage |   |





**PICTURE OMITTED** 

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### PICTURE OMITTED


#### **PICTURE OMITTED**

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#### EXHIBIT K

#### FORM OF AVAILABILITY NOTICE

Effective Date\_\_\_\_\_

Time\_\_\_\_\_

| HOUR | Capacity | Number of Wind Turbines in Operation |
|------|----------|--------------------------------------|
| 1    |          |                                      |
| 2    |          |                                      |
| 3    |          |                                      |
| 4    |          |                                      |
| 5    |          |                                      |
| 6    |          |                                      |
| 7    |          |                                      |
| 8    |          |                                      |
| 9    |          |                                      |
| 10   |          |                                      |
| 11   |          |                                      |
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#### EXHIBIT L

#### EXHIBIT M

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### FORM OF CONSENT AND AGREEMENT

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#### Consent and Agreement

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Consent and Agreement

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## EXHIBIT JFG-3

## 2009 1100MW Renewable Request for Proposal (RFP)

**Bid Results** 

CONFIDENTIAL AND BUSINESS SENSITIVE

## EXHIBIT 4

#### **BEFORE THE**

#### PUBLIC SERVICE COMMISSION OF KENTUCKY

#### IN THE MATTER OF

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#### GENERAL ADJUSTMENTS IN ELECTRIC RATES OF KENTUCKY POWER COMPANY CASE NO. 2009-

#### DIRECT TESTIMONY OF SCOTT C. WEAVER

#### ON BEHALF OF KENTUCKY POWER COMPANY

December 29, 2009

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#### DIRECT TESTIMONY OF SCOTT C. WEAVER ON BEHALF OF KENTUCKY POWER COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

#### CASE NO. 2009-

#### TABLE OF CONTENTS

| I.   | Introduction1  |
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| п.   | Background 1   |
| ш.   | Purpose of Testimony 3   |
| IV.  | Resource Planning Overview 4                                     |
| v.   | KPCo and AEP Future View of Renewable Resources Within its IRP 7 |
| VI.  | Economic Review of the Lee-DeKalb Wind Energy Center Project     |
| VII. | Conclusion   |

| EXHIBIT SCW-1A: | Kentucky Power Company-Projected Winter Peak Demands,<br>Generating Capabilities and Margins (2008/2009-2022/2023)  |
|-----------------|---|
| EXHBIIT SCW-1B: | Kentucky Power Company-Projected Summer Peak Demands,<br>Generating Capabilities and Margins (2009-2023)  |
| EXHIBIT SCW-2:  | AEP-System; AEP-Eastern Zone; Kentucky Power Company -<br>CUMULATIVE Renewable Resources Required to Approach and<br>Approximate 7% System Target by 2013 and 10% by 2020 |
| EXHIBIT SCW-3:  | Kentucky Power Company-Relative Change in Annual Revenue<br>Requirement / Project Cost Comparison Due to Proposed 100 MW<br>LDWEC PPA                                     |

### DIRECT TESTIMONY OF SCOTT C. WEAVER ON BEHALF OF KENTUCKY POWER COMPANY BEFORE THE PUBLIC SERVICE COMMISSION OF KENTUCKY

| 1                                      |          | I. <u>INTRODUCTION</u>  |  |
|--|----------|---|--|
| 2                                      | Q.       | WOULD YOU PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND   |  |
| 3                                      |          | POSITION?   |  |
| 4                                      | А.       | My name is Scott C. Weaver, and my business address is 1 Riverside Plaza, Columbus,   |  |
| 5                                      |          | Ohio 43215. I am employed by the American Electric Power Service Corporation  |  |
| 6                                      |          | (AEPSC) as Managing Director-Resource Planning and Operational Analysis. AEPSC  |  |
| 7                                      |          | supplies engineering, financing, accounting and similar planning and advisory services to   |  |
| 8                                      |          | AEP's eleven electric operating companies, including Kentucky Power Company   |  |
| 9                                      |          | ("Kentucky Power, KPCo or Company").  |  |
| II. BACKGROUND                         |          |   |  |
|  |          | II. <u>BACKGROUND</u>   |  |
| 10                                     | Q.       | II. <u>BACKGROUND</u><br>WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND   |  |
| 10<br>11                               | Q.       | II. <u>BACKGROUND</u><br>WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND<br>PROFESSIONAL BACKGROUND?   |  |
| 10<br>11<br>12                         | Q.<br>A. | II. BACKGROUND         WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND         PROFESSIONAL BACKGROUND?         I received a Bachelor of Business Administration Degree in Accounting from Ohio  |  |
| 10<br>11<br>12<br>13                   | Q.<br>A. | II. BACKGROUND         WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND          PROFESSIONAL BACKGROUND?          I received a Bachelor of Business Administration Degree in Accounting from Ohio          University in 1981, and a Master of Business Administration from the same university in   |  |
| 10<br>11<br>12<br>13<br>14             | Q.<br>A. | II. BACKGROUND         WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND          PROFESSIONAL BACKGROUND?          I received a Bachelor of Business Administration Degree in Accounting from Ohio          University in 1981, and a Master of Business Administration from the same university in          1985. In addition, in 1996 I completed both the American Electric Power System   |  |
| 10<br>11<br>12<br>13<br>14<br>15       | Q.<br>A. | II. BACKGROUND         WOULD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND          PROFESSIONAL BACKGROUND?          I received a Bachelor of Business Administration Degree in Accounting from Ohio          University in 1981, and a Master of Business Administration from the same university in          1985. In addition, in 1996 I completed both the American Electric Power System          Management Development Program at The Ohio State University as well as The Darden  |  |
| 10<br>11<br>12<br>13<br>14<br>15<br>16 | Q.<br>A. | II. BACKGROUND         WOULLD YOU PLEASE DESCRIBE YOUR EDUCATIONAL AND          PROFESSIONAL BACKGROUND?          I received a Bachelor of Business Administration Degree in Accounting from Ohio          I viversity in 1981, and a Master of Business Administration from the same university in          1985. In addition, in 1996 I completed both the American Electric Power System          Management Development Program at The Ohio State University as well as The Darden          Partnership Program at the Darden Graduate School of Business Administration, |  |

| 1  |    | I was employed by AEPSC in 1980 as an Associate Forecast Analyst in the                    |
|----|----|--|
| 2  |    | Controllers Department (now Corporate Planning and Budgeting Department), and was          |
| 3  |    | subsequently named Assistant Financial Analyst in 1983, Financial Analyst in 1986,         |
| 4  |    | Senior Financial Analyst in 1987, and Senior Administrative Assistant II in 1990. In 1991, |
| 5  |    | I transferred to the AEPSC Fuel Supply Department as Manager-Administration. I was         |
| 6  |    | subsequently named Manager-Administration and Purchasing in 1994 and Director of           |
| 7  |    | Power Generation Business Planning and Financial Management in 1996. I transferred to      |
| 8  |    | the AEP Wholesale business unit in 2000 as Manager-Business Planning and in January        |
| 9  |    | 2003 I transferred back to the Corporate Planning and Budgeting Department as Director     |
| 10 |    | of Operational Analysis. I assumed my present position in May 2003.                        |
| 11 | Q. | WHAT ARE YOUR RESPONSIBILITIES AS MANAGING DIRECTOR-                                       |
| 12 |    | <b>RESOURCE PLANNING AND OPERATIONAL ANALYSIS?</b>   |
| 13 | А. | I am responsible for the supervision and administration of long-term generation resource   |
| 14 |    | planning and supply-side operational analysis for AEP. In such capacity, I coordinate the  |
| 15 |    | use of short- and long-term generation production costing as well as other resource        |
| 16 |    | planning models, used in the ultimate development of operating and capital budget          |
| 17 |    | forecasts for Kentucky Power Company and its parent, AEP. I also regularly monitor         |
| 18 |    | actual performance and review the preparation of forecasted information for use in         |
| 19 |    | regulatory proceedings.  |
| 20 | Q. | HAVE YOU PREVIOUSLY TESTIFIED BEFORE ANY REGULATORY  |
| 21 |    | COMMISSIONS?   |

| 1  | А. | Yes. Over the last four years I will have offered resource planning-related testimony on |
|----|----|--|
| 2  |    | behalf of AEP operating company affiliates before eight state commissions, including     |
| 3  |    | Arkansas, Indiana, Louisiana, Michigan, Oklahoma, Texas, Virginia, and West Virginia.    |
|    |    | III. <u>PURPOSE OF TESTIMONY</u>   |
| 4  | Q. | WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS FILING?                                    |
| 5  | А. | The purpose of this testimony is to:   |
| 6  |    | 1. Offer a brief overview of the KPCo and AEP resource planning process;                 |
| 7  |    | 2. describe KPCo and AEP's inclusion of renewable resources in the overall Integrated    |
| 8  |    | Resource Planning (IRP) process, particularly given the prospects for federal            |
| 9  |    | legislation around greenhouse gases (GHG) and renewable energy requirements and          |
| 10 |    | the termination of the current federal production tax credits currently available to     |
| 11 |    | support renewable project development; and   |
| 12 |    | 3. offer an economic analysis that would support the approval of the Company's proposed  |
| 13 |    | Wind Power Purchase Agreement (PPA) between KPCo and FPL Energy Illinois Wind,           |
| 14 |    | LLC (FPLEWIC) also known as the Lee-DeKalb Wind Energy Center (LDWEC) for                |
| 15 |    | the sale of a 100 MW share of its electrical output and environmental attributes to      |
| 16 |    | KPCo for a 20 year period and which is anticipated to be in-service in 2010.             |
| 17 |    | Specifically, this analysis will reflect wind energy contributions established within    |
| 18 |    | the context of the 2009 Kentucky Power Company IRP Report which was recently filed       |
| 19 |    | with this Commission in Case No. 2009-00339, on August 17, 2009.                         |
| 20 | Q. | WERE THE SCHEDULES USED TO SUPPORT YOUR TESTIMONY  |
| 21 |    | PREPARED BY YOU OR UNDER YOUR DIRECT SUPERVISION?  |

#### 1 A. Yes.

#### IV. RESOURCE PLANNING OVERVIEW

# Q. CAN YOU PROVIDE A BRIEF OVERVIEW OF THE INTERRELATIONSHIP BETWEEN KPCO AND AEP FOR PURPOSE OF DETERMINING CAPACITY

#### 4 **RESOURCE REQUIREMENTS?**

- 5 Yes. The AEP System includes eleven utility operating companies, operating in eleven A. 6 states, with generation and transmission assets primarily in two different Regional Transmission Organization (RTO) planning and operational regions. Those RTOs are the 7 8 PJM Interconnection, L.L.C. (PJM), in which AEP's Eastern Zone is located, and the 9 Southwest Power Pool (SPP) in which AEP's Western Zone is located. KPCo is a 10 wholly-owned subsidiary of AEP-serving retail customers in eastern Kentucky-and is 11 located in AEP's Eastern Zone. In addition to KPCo, the AEP Operating Companies in the Eastern Zone (collectively, AEP-East) are: 12 Appalachian Power Company (APCo), serving portions of West Virginia and Virginia; 13 8 Columbus Southern Power Company (CSP), serving portions of central and southern 14 8 15 Ohio;
- 16Indiana Michigan Power Company (I&M), serving portions of northern Indiana and17southwestern Michigan; and
- 18 Ohio Power Company (OPCo), serving portions of Ohio.
- Additionally, two other Operating Companies residing in the AEP Eastern Zone,
   Kingsport Power Company (KgP) and Wheeling Power Company (WPCo), represent
   non-generating affiliates.

| 1  |    | AEP-East collectively serves about 3.6 million customers in an approximate 90,000         |
|----|----|---|
| 2  |    | square-mile area of Virginia, West Virginia, Ohio, Indiana, Michigan, Kentucky and        |
| 3  |    | Tennessee.  |
| 4  | Q. | WOULD YOU PLEASE PROVIDE A BRIEF DESCRIPTION OF KPCO'S                                    |
| 5  |    | CUSTOMER BASE?  |
| 6  | А. | KPCo's customers consist of both retail and sales-for-resale customers located in eastern |
| 7  |    | Kentucky. The majority of these customers, comprising nearly 99 percent of KPCo's         |
| 8  |    | internal energy sales in 2008, consisted of over 175,000 residential, commercial, and     |
| 9  |    | industrial retail end-use customers. The remaining 1 percent of KPCo's energy sales in    |
| 10 |    | 2008 came from municipal utilities to which KPCo provides wholesale service for ultimate  |
| 11 |    | distribution and resale to their end-use customers.                                       |
| 12 | Q. | WOULD YOU PLEASE PROVIDE A DESCRIPTION OF HOW KPCO SERVES                                 |
| 13 |    | THE DEMAND AND ENERGY REQUIREMENTS OF THIS CUSTOMER BASE?                                 |
| 14 | А. | The peak load requirement of KPCo's customers is seasonal in nature, with distinctive     |
| 15 |    | peaks occurring in both the summer and the winter seasons. Historically, KPCo's highest   |
| 16 |    | recorded summer peak was 1,358 MW, which occurred in July 2005; and the highest           |
| 17 |    | recorded winter peak was 1,685 MW, which occurred in January 2005. KPCo's most            |
| 18 |    | recent winter and summer peaks were 1,674 MW and 1,163 MW occurring in January and        |
| 19 |    | August of this year, respectively. KPCo's 2008 energy sales to retail and internal        |
| 20 |    | wholesale customers were 7,342 GWh.   |
| 21 |    | To meet the peak demand and annual energy requirements of its customers, at               |
| 22 |    | year-end 2008 KPCo relied on 1,453 MW of owned—or for which it currently has a            |
| 23 |    | long-term purchase entitlement-generating capability (winter ratings), with all of that   |

| 1  |    | generating capability representing coal-fueled baseload capacity. <sup>1</sup> In addition to its owned |
|----|----|---|
| 2  |    | (and entitlement) capacity, in order to meet the needs of its customers that are in excess of           |
| 3  |    | what is supplied from its owned resources, KPCo has historically relied on capacity and                 |
| 4  |    | energy purchases from the generating resources of the other AEP-East operating                          |
| 5  |    | companies pursuant to the 1951 AEP Interconnection Agreement (the AEP Pool).                            |
| 6  | Q. | HOW WILL THE FUTURE DEMAND AND ENERGY REQUIREMENTS OF   |
| 7  |    | KPCO'S CUSTOMERS BE SERVED?   |
| 8  | А. | The future capacity and energy resource needs of KPCo are established in concert with that              |
| 9  |    | of the other AEP-East Operating Companies under the auspices of the AEP Pool, which                     |
| 10 |    | was established for the purpose of obtaining the most efficient coordinated expansion and               |
| 11 |    | operation of AEP's power supply facilities. Through an integrated and coordinated                       |
| 12 |    | approach to resource planning, each of the Member Companies within the AEP Pool,                        |
| 13 |    | including KPCo, is provided with the benefits of economies not achievable on a                          |
| 14 |    | stand-alone basis.  |
| 15 |    | As part of the resource planning process, the AEP System considers various                              |
| 16 |    | supply-side options including simple cycle combustion turbine units, natural gas combined               |
| 17 |    | cycle units, supercritical pulverized coal units, integrated gasification combined cycle units,         |
| 18 |    | nuclear units, distributed generation, energy storage technologies, as well as purchases                |
| 19 |    | from the wholesale market. In addition, the AEP System is also pursuing reasonably                      |
| 20 |    | priced "renewable" technologies, such as wind energy and biomass.                                       |

<sup>&</sup>lt;sup>1</sup> Big Sandy Unit 1 (260 MW); Big Sandy Unit 2 (800 MW); Rockport Unit 1 (Purchase entitlement from AEP Generating Co., 198 MW); Rockport Unit 2 (Purchase entitlement from AEP Generating Co., 195 MW)

### V. <u>KPCO AND AEP FUTURE VIEW OF RENEWABLE RESOURCES WITHIN</u> <u>ITS IRP</u>

| 1  | Q. | FIRST, WOULD YOU PLEASE PROVIDE A DESCRIPTION, IN THE CONTEXT                              |
|----|----|--|
| 2  |    | OF KPCO'S LATEST (2009) IRP, OF HOW KPCO PLANS TO SERVE THE                                |
| 3  |    | DEMAND AND ENERGY REQUIREMENTS OF ITS CUSTOMER BASE?                                       |
| 4  | A. | As noted earlier, the future capacity and energy resource needs of KPCo are established in |
| 5  |    | concert with that of the other AEP-East Operating Companies under the auspices of the      |
| 6  |    | AEP Pool.  |
| 7  |    | Exhibit SCW-1A and SCW-1B offer a "Capacity, Load, Reserve" (CLR) table for                |
| 8  |    | KPCo—submitted as part of the formal KPCo and AEP-Eastern Zone 15-year 2009 IRP            |
| 9  |    | planning period ending 2023—for the winter and summer peaking periods, respectively.       |
| 10 |    | As the schedules indicate, KPCo's CLR includes various demand-side and supply-side         |
| 11 |    | options. The supply-side approach includes the need for intermediate/load-following        |
| 12 |    | capacity (proxied as a natural gas combined cycle [CC] unit); peaking capacity (proxied as |
| 13 |    | natural gas simple-cycle combustion turbine [CT] units); and the addition of renewable     |
| 14 |    | resources in the form of wind capacity and energy.   |
| 15 | Q. | WOULD YOU PLEASE PROVIDE A DESCRIPTION OF THE RENEWABLE                                    |
| 16 |    | RESOURCES INCLUDED IN THIS KPCO IRP-BASED CLR TABLE?                                       |
| 17 | А. | In early 2007, as part of AEP's comprehensive strategy to address GHG emissions, the       |
| 18 |    | AEP System (both its Eastern and Western Zones) committed to the acquisition of energy     |
| 19 |    | from 1,000 MW (nameplate) of additional wind generation projects by the end of 2010 via    |
| 20 |    | long-term purchase power agreements. This was part of an overall AEP strategy at the       |

1

2

time to incorporate a renewable energy portfolio target equal to five percent (5%) of energy sales by the year 2020.

However, considering the increasing number of state renewable energy mandates 3 and, more specifically, the growing prospect of comprehensive federal legislation around 4 GHG that would likely be inclusive of renewable energy requirements, AEP has now 5 6 doubled this internal target by committing to incrementally add a total of 2,000 MW of renewable energy across its eleven-state system by the end of 2011. Such updated goals 7 have been formally published as part of its 2009 Corporate Sustainability Report.<sup>2</sup> 8 Likewise, for reasons I will further discuss, AEP's overall longer-term renewable energy 9 10 portfolio target has also been doubled, increasing to ten percent (10%) of retail energy sales 11 by the year 2020. To be successfully implemented, however, AEP's internal renewable targets will require support from regulators. 12 Efforts to meet these renewable goals and internal targets are underway. A total of 13 14 277 MW (nameplate) of wind projects have been recently transacted in the AEP

15 System-Western Zone. The AEP System-Eastern Zone is already receiving energy from

16 the Camp Grove and Fowler Ridge wind projects with a total nameplate rating of 275 MW.

17 Additional contracts have been recently executed in AEP-East for each of the other

18 Member Companies (APCo, CSP, I&M, and OPCo) for another 351 MW to be placed in

19 service in 2009 and 2010. As discussed further by Company Witness Jay Godfrey, on

- 20 behalf of all of its affiliate regulated operating companies, including KPCo, AEP solicited
- 21 in June of 2009 a System-wide Request for Proposal (RFP) for up to 1,100 MW

<sup>&</sup>lt;sup>2</sup> Available at http://www.aep.com/citizenship/crreport/docs/CS\_Report\_2009\_web.pdf

- 1 (nameplate) of additional renewable resources by the end of 2011 that would be required to achieve this goal.<sup>34</sup> 2
- 3 Q. WHAT LEVEL OF RENEWABLE ENERGY WOULD THIS INCREMENTAL
- 4 2,000 MW OF RENEWABLE RESOURCES BRING TO THE AEP SYSTEM?
- 5 A. That will not be known until the specific type of future renewable generation projects are
- ultimately identified and selected. However, assuming nearly all of it would be in the form 6
- 7 of wind energy, this incremental 2,000 MW would offer approximately 6,100 GWh of
- renewable energy. As a percent of projected AEP System-wide retail sales in 2011 that 8
- may be approaching roughly 150,000 GWh, this incremental energy would increase AEP's 9
- renewable energy position by an additional 4.1 percent by the end of 2011.<sup>5</sup> 10
- 11 Q. IN ADDITION TO WIND, WHAT OTHER RENEWABLE TECHNOLOGIES

#### ARE KPCO AND AEP CONSIDERING? 12

- Other renewable technologies were screened for cost-effectiveness, including biomass 13 A.
- 14 co-firing, in which a small amount (up to about 2% of the combined fuels' heat content) of
- 15 biomass feedstock is fired in boilers along with coal; and biomass separate injection, in
- which larger amounts of biomass (up to 10% of the combined fuels' heat content) are 16
- injected separately into boilers. Though very preliminary, the current indicative planning 17
- includes the potential for biomass co-firing at Rockport Units 1 or 2 by 2013, as well as 18
- 19
  - biomass separate injection at KPCo's Big Sandy Unit 2 by 2015.

<sup>(2,000</sup> MW Goal - 277 MW - 275 MW - 351 MW = ~1,100 MW)

<sup>&</sup>lt;sup>4</sup> Such renewable resources to be considered including wind, commercial-scale solar, biomass, geothermal, biologically-derived methane gas, and hydroelectric (as certified by the Low Impact Hydro Institute).

<sup>&</sup>lt;sup>5</sup> (2,000 MW x 8,760 hr/yr x 35% [assumed] capacity factor / 1,000 = -6,100 GWh / 150,000 GWh = -4.1%)

| 1  |    | Based on current cost and performance parameters, other renewable technologies                  |
|----|----|---|
| 2  |    | such as solar energy remain relatively expensive, particularly in the geographic region of      |
| 3  |    | the country occupied by the AEP-Eastern Zone. The renewable plan for AEP-East does              |
| 4  |    | include limited solar energy by the end of 2009, but this is being driven by mandated           |
| 5  |    | requirements for solar that have been established specifically in the state of Ohio. KPCo's     |
| 6  |    | resource plan at this time does not include solar energy within the nearer-term plan period.    |
| 7  | Q. | WHY ARE RENEWABLE TECHNOLOGIES BEING CONSIDERED AS PART   |
| 8  |    | OF THE KPCO AND AEP RESOURCE PLANNING PROCESS?  |
| 9  | А. | As part of the planning process, the AEP System has incorporated a comprehensive                |
| 10 |    | strategy to reduce, avoid, or offset future GHG emissions, chief among those gases, carbon      |
| 11 |    | dioxide ( $CO_2$ ). Achieving this strategy has involved a commitment to a diverse portfolio of |
| 12 |    | solutions including:  |
| 13 |    | <ul> <li>demand side/energy efficiency programs;</li> </ul>                                     |
| 14 |    | <ul> <li>efficiency improvements to existing fossil-fueled plants;</li> </ul>                   |
| 15 |    | • the potential diversification of its fuel mix to consider larger contributions from           |
| 16 |    | lower CO <sub>2</sub> -emitting natural gas generation resources;                               |
| 17 |    | • possible construction of advanced technology baseload coal-fueled plants that                 |
| 18 |    | would offer improved thermal efficiency and, with that, lower emissions;                        |
| 19 |    | • carbon capture and sequestration technology;  |
| 20 |    | • reforestation, methane capture and other carbon offset project alternatives; and              |
| 21 |    | • the ownership and operation, and/or long-term purchase of renewable energy                    |
| 22 |    | resources, including wind.  |
| 23 |    | This strategy is intended to yield the environmental benefit of reduced GHG                     |
| 24 |    | emissions, and serve to mitigate the potential for significant rate increases to customers      |

attributable to any future Global Climate Change/GHG reduction legislation—likely to be
 inclusive of renewable energy standards—or regulated emission reduction mandates.

#### 3 Q. WHY IS AEP ACCELERATING ITS ACQUISITION OF RENEWABLE

#### **RESOURCES?**

4

The decision to accelerate the acquisition of renewable resources reflects a number of 5 A. 6 factors and trends. Many of the other states in which AEP operates have adopted mandatory RPS requirements, including three in the AEP-Eastern Zone (Ohio, Michigan 7 and West-Virginia)<sup>6</sup>, while Virginia has a voluntary goal. AEP also recognizes that 8 9 mandatory RPS requirements are likely to be ultimately required at the federal level. The U.S. House of Representatives' recently-passed the Waxman-Markey Climate Change Bill 10 11 (H.R. 2454) included a combined federal renewable energy standard (RES) and energy efficiency standard (EES) beginning in 2012, plateauing at a 20 percent contribution level<sup>7</sup> 12 13 by 2020—with a minimum renewable energy contribution component at that point of 15 14 percent. Moreover, the U.S. Senate also recently passed out of its Energy and Natural Resources (E&NR) Committee a combined RES/EES (S. 1462) beginning in 2011, 15 plateauing at 15 percent by 2021—that would then require a minimum renewable energy 16 17 component of 11 percent. It is interesting to note that the largely 'stand-alone' RES/EES that was passed out 18

19

of the Senate E&NR Committee earlier this year enjoyed bi-partisan support. The bill was

<sup>&</sup>lt;sup>6</sup> AEP-Eastern Zone states with renewable energy requirements include: Ohio (Substitute S.B. 221), Michigan ("Clean, Renewable and Efficiency Energy Act"-2008 PA 295), and West Virginia ("Alternative and Renewable Energy Portfolio Act"-Enrolled H.B. 103). Indiana has pending H.B. No. 1305 which would establish a 25% target renewable percentage by 2027, while Kentucky has no pending legislation.

<sup>&</sup>lt;sup>7</sup> As a percent of retail load serving entity sales.

| 1  |    | voted out of committee with 15 ayes, and 8 nays (with Republican Committee members         |
|----|----|--|
| 2  |    | voting 4 aye, 6 nay). This is in contrast to the comprehensive Climate Change Bill         |
| 3  |    | (Waxman-Markey) that passed out of the full U.S. House by a vote of 219-to-212 (with       |
| 4  |    | only 8 Republicans voting in favor). This could suggest that establishing, minimally,      |
| 5  |    | renewable energy standards at the federal level could be far less contentious among policy |
| 6  |    | makers going-forward.  |
| 7  |    | Given the increasing probability of federal renewable energy legislation—either as         |
| 8  |    | part of comprehensive federal Climate Change/GHG legislation, or as a unique               |
| 9  |    | "carve-out"—KPCo and AEP have determined it is reasonable to begin to add to their         |
| 10 |    | renewable energy portfolios now as part of their resource planning process. (Company       |
| 11 |    | Witness Godfrey discusses in greater detail the benefits of locking in long-term prices of |
| 12 |    | renewable generation). Thus, as part of the 2009 IRP process, it was assumed that AEP      |
| 13 |    | would target to achieve at least a seven percent (7%) system-wide renewable energy         |
| 14 |    | portfolio by the year 2013 (i.e. available by the end of 2012), increasing to the          |
| 15 |    | previously-mentioned ten percent (10%) target by the year 2020, a level that               |
| 16 |    | conservatively approaches—but still falls below—the quantities currently being             |
| 17 |    | considered by Congress.  |
| 18 | Q. | KENTUCKY CURRENTLY HAS NO RENEWABLE PORTFOLIO STANDARD.                                    |
| 19 |    | PLEASE COMMENT ON ANY EFFORTS YOU ARE AWARE OF IN THE                                      |
| 20 |    | STATE THAT WOULD POINT TO THE INITIATION OF SUCH A STANDARD.                               |
| 1  | А. | As discussed more completely by Company Witness Mosher, in November 2008 Governor                  |
|----|----|--|
| 2  |    | Beshear unveiled a comprehensive energy plan <sup>8</sup> that would address future energy-related |
| 3  |    | challenges for the state, including the development of diverse and clean energy resources.         |
| 4  |    | At the top of a list of seven key "strategies", this initiative set forth a proposed Renewable     |
| 5  |    | and Energy Efficiency Portfolio Standard, whereby twenty-five percent of Kentucky's                |
| 6  |    | energy needs in 2025 will be met by reductions through energy efficiency and conservation          |
| 7  |    | and through the use of renewable resources. Of that total amount, seven percent would be           |
| 8  |    | met through the use of renewable resources such as solar, wind, hydro, and biofuels.               |
| 9  | Q. | HAS THE PROSPECT OF THE FUTURE TERMINATION OF FEDERAL  |
| 10 |    | PRODUCTION TAX CREDITS, CURRENTLY AVAILABLE TO WIND AND  |
| 11 |    | OTHER RENEWABLE RESOURCE PROJECT DEVELOPERS, AFFECTED  |
| 12 |    | AEP AND KPCO'S PLANNING?   |
| 13 | А. | Yes. AEP and KPCo's decision to pursue an expanded and accelerated renewable                       |
| 14 |    | portfolio is certainly influenced by the expiration on December 31, 2012 of the federal            |
| 15 |    | Production Tax Credits (PTCs) that are currently available for wind developers. PTCs for           |
| 16 |    | wind energy offer tax credit benefits to project developers equal to 2.1 cents per                 |
| 17 |    | kilowatt-hour of renewable energy generated over the ten-year credit eligibility period.           |
| 18 |    | This would equate to a pre-tax (revenue requirement) benefit of approximately 3                    |
| 19 |    | cents/kWh, or \$30/MWh. Therefore, without the PTCs, significant incremental costs                 |
| 20 |    | would be passed through by wind project developers to its wholesale purchasers, and could          |
| 21 |    | result in a significant prospective increase in the cost of purchased (or self-developed and       |
| 22 |    | owned) wind energy.  |

<sup>&</sup>lt;sup>8</sup> Plan entitled, "Intelligent Energy Choices for Kentucky's Future".

| 1  | Q. | ON SEVERAL PREVIOUS OCCASSIONS CONGRESS HAS "EXTENDED"                                   |
|----|----|--|
| 2  |    | SUCH FEDERAL PRODUCTION TAX CREDITS. WHAT IS THE PROSPECT                                |
| 3  |    | THAT FURTHER EXTENSIONS—BEYOND DECEMBER 31, 2012 FOR WIND                                |
| 4  |    | PROJECT DEVELOPMENT—WILL BE AUTHORIZED BY CONGRESS?                                      |
| 5  | А. | The prospect of such subsidization extensions would be less likely assuming some form of |
| 6  |    | federal renewable energy standard is ultimately established. It's analogous to a classic |
| 7  |    | "carrot" and "stick" behavioral influence. PTCs represent the "carrot"; an inducement    |
| 8  |    | offered to the marketplace to site, develop and build renewable resources. A federal     |
| 9  |    | legislated mandate around achievement of specific renewable energy thresholds—the        |
| 10 |    | "stick"—would require action to be taken whether financial incentives were available or  |
| 11 |    | not. To have both would be unnecessary.  |
| 12 | Q. | ASSUMING THESE AEP SYSTEM RENEWABLE ENERGY TARGETS BY THE                                |
| 13 |    | YEAR 2013 AND, ULTIMATELY, BY 2020, WERE LIKEWISE APPLIED TO                             |
| 14 |    | EACH OF ITS OPERATING COMPANIES, WHAT LEVELS OF WIND                                     |
| 15 |    | CAPACITY WOULD BE REQUIRED BY KPCO?  |
| 16 | А. | Assuming: 1) wind represented the exclusive source of renewable resources, 2) KPCo's     |
| 17 |    | forecasted retail energy sales of 7,602 GWh in 2013 and 7,956 GWh in 2020, and 3) that   |
| 18 |    | the presumed capacity factor from such wind resources were estimated to be in the        |
| 19 |    | mid-thirty percent range (say, 35%), then the following Table 1 offers the required wind |
| 20 |    | capacity to achieve such targeted renewable levels:                                      |

|    |   |   |  | Tabl                      | e 1                                |                  |                   |  |  |  |  |  |  |  |  |  |
|----|---|---|--|---------------------------|------------------------------------|------------------|-------------------|--|--|--|--|--|--|--|--|--|
| 1  |   | RFCO<br>Equivalent Wind Capacity Necessary to Achieve Renewable Energy Targets<br>Based on 2009 IRP |  |                           |                                    |                  |                   |  |  |  |  |  |  |  |  |  |
| 2  |   |   |  | (0)                       |                                    |                  |                   |  |  |  |  |  |  |  |  |  |
| 3  |   | Year  | (1)<br>AEP Approximate<br>Renewable Energy | (2)<br>Forecasted<br>KPCo | (1) x (2)<br>Required<br>Renewable | Assumed<br>Wind  | Required<br>Wind  |  |  |  |  |  |  |  |  |  |
| 4  |   |   | rarget                                     | (Gwh)                     | (Gwh)                              | Cap. Factor      | (MW)              |  |  |  |  |  |  |  |  |  |
| .5 |   | 2013  | 7%   | 7,602                     | 532                                | 35%              | 174               |  |  |  |  |  |  |  |  |  |
| 6  |   | 2020  | 10%  | 7,956                     | 796                                | 35%              | 259               |  |  |  |  |  |  |  |  |  |
| 7  |   | * Represents nameplate capacity calculated as follows: Required Energy / C.F. / 8760 hrs. * 1000    |  |                           |                                    |                  |                   |  |  |  |  |  |  |  |  |  |
|    |   |   |  |                           |                                    |                  |                   |  |  |  |  |  |  |  |  |  |
| 8  | As reflected in Table 1, the equivalent "targeted" level of wind resources required |   |  |                           |                                    |                  |                   |  |  |  |  |  |  |  |  |  |
| 9  |   | by KPCo in the year 2013 of 174 MW, would significantly exceed the levels of wind                   |  |                           |                                    |                  |                   |  |  |  |  |  |  |  |  |  |
| 10 |   | energy currently under consideration (100 MW, nameplate) as part of the proposed                    |  |                           |                                    |                  |                   |  |  |  |  |  |  |  |  |  |
| 11 |   | LDWEC   | purchase agreement.                        | In fact, such 1           | 00 MW KPCo                         | wind portfolic   | o amount would    |  |  |  |  |  |  |  |  |  |
| 12 |   | represent   | only 39 percent of the                     | e equivalent ult          | timate 259 MV                      | V (10 percent) l | evel established  |  |  |  |  |  |  |  |  |  |
| 13 |   | for the ye  | ar 2020.                                   |                           |                                    |                  |                   |  |  |  |  |  |  |  |  |  |
| 14 | Q.  | AS PART   | ſ OF THE COMPA                             | NY'S 2009 IR              | RP, KPCO EX                        | HIBIT SCW-       | 1A                |  |  |  |  |  |  |  |  |  |
| 15 |   | INDICA  | FES TWO SEPARA                             | ATE 50 MW V               | VIND RESOU                         | JRCE TRANC       | CHES FOR          |  |  |  |  |  |  |  |  |  |
| 16 |   | KPCO IP   | N THE (WINTER P                            | LANNING) Y                | 'EARS 2010 A                       | AND 2011, RE     | SPECTIVELY.       |  |  |  |  |  |  |  |  |  |
| 17 |   | WHY IS  | KPCO NOW SEEF                              | KING APPRO                | VAL OF A S                         | INGLE 100 M      | W WIND            |  |  |  |  |  |  |  |  |  |
| 18 |   | RESOUF  | RCE TRANSACTIO                             | ON THAT WO                | OULD BE EF                         | FECTIVE IN 2     | 2010?             |  |  |  |  |  |  |  |  |  |
| 19 | А.  | The renew   | vable resource plan fo                     | or KPCo as refl           | ected in its 200                   | )9 IRP and iden  | tified in Exhibit |  |  |  |  |  |  |  |  |  |
| 20 |   | SCW-1A  | (and 1B), represents                       | a generic rene            | wable plannin                      | g profile that w | as reasonably     |  |  |  |  |  |  |  |  |  |
| 21 |   | establishe  | d at that time to inclu                    | ide a total of 1          | 00 MW (name                        | plate) of wind 1 | esources, albeit  |  |  |  |  |  |  |  |  |  |

| 1  |    | in two unique 50 MW tranches. In general, however, KPCo's decision to now contract for       |
|----|----|--|
| 2  |    | the (full) 100 MW by way of this single LDWEC project does not represent a departure         |
| 3  |    | from the original plan, other than a slight acceleration in its implementation. As discussed |
| 4  |    | more fully by Company Witness Godfrey, to achieve the broader renewable energy               |
| 5  |    | objectives of KPCo and its affiliate regulated operating companies, on June 1, 2009, AEP,    |
| 6  |    | issued an RFP for 1,100 MW of renewable power and energy, with proposed commercial           |
| 7  |    | operating dates beginning December 31, 2009, but no later than December 31, 2011. This       |
| 8  |    | LDWEC project simply represents a partial implementation of that objective.                  |
| 9  | Q. | BY THE YEAR 2013 (END OF 2012), WHAT LEVEL OF NAMEPLATE WIND                                 |
| 10 |    | CAPACITY IS REFLECTED IN THE 2009 RESOURCE PLANNING THAT                                     |
| 11 |    | WOULD CONTRIBUTE TO THE ACHIEVEMENT OF A SEVEN PERCENT (7                                    |
| 12 |    | PERCENT) "INTERIM" AEP SYSTEM RENEWABLE TARGET?  |
| 13 | А. | Table 2 offers a summary of the potential renewable/wind profile by the end of 2012 for      |
| 14 |    | KPCo and the AEP System as a whole:  |

| 1  |   |   | Table 2                                   |  |                                       |                      |  |  |  |  |  |  |  |  |  |
|----|---|---|---|--|---------------------------------------|----------------------|--|--|--|--|--|--|--|--|--|
| 2  | KPCo and AEP System<br>Wind Profile (through 2012)<br>Based on 2009 IRP |   |   |  |                                       |                      |  |  |  |  |  |  |  |  |  |
| 3  |   | MW N<br>(As o                                       | ameplate Capaci<br>of November, 2009)     | ity                                      |                                       |                      |  |  |  |  |  |  |  |  |  |
| 4  | KBCo  | Project Name  | Per Plan                                  | Proposed<br><u>PPAs</u>                  | Executed<br>PPAs                      | In-Service           |  |  |  |  |  |  |  |  |  |
| 5  | In-Service By 12/31   | XX.   |   |  |                                       |                      |  |  |  |  |  |  |  |  |  |
| 6  | 2010<br>2011  | Lee-DeKalb Wind Energy Center                       | (A) { 50<br>50                            | 50<br>50                                 | -                                     | 2010<br>2010         |  |  |  |  |  |  |  |  |  |
| 7  | 2012<br>KPCo TOTAL  | -   | -<br>100 <sup>(B)</sup>                   | - 100                                    | -                                     |                      |  |  |  |  |  |  |  |  |  |
| /  | RFC0 TOTAL  |   |   |  |                                       |                      |  |  |  |  |  |  |  |  |  |
| 8  | AEP System  |   |   |  |                                       |                      |  |  |  |  |  |  |  |  |  |
| 9  | "Legacy" Wind   | (Various-PSO and SWEPCO)                            | 424                                       |  | n/a                                   | 424                  |  |  |  |  |  |  |  |  |  |
| 10 | In-Service By 12/31   | /XX:  |   | to na svo Da tuvić na s                  |                                       |                      |  |  |  |  |  |  |  |  |  |
| 10 | 2008  | Camp Grove (APCo)                                   | 75  |  | 75                                    | 75                   |  |  |  |  |  |  |  |  |  |
| 11 | 2009  | Fowler Ridge (AP/I&M)                               | 200                                       |  | 200                                   | 200                  |  |  |  |  |  |  |  |  |  |
| 11 |   | Grand Ridge II & III (APCo)                         | 100.5                                     |  | 100.5                                 | (est. 12/09)         |  |  |  |  |  |  |  |  |  |
| 10 |   |   | 150                                       |  | 70 6                                  | (est. 12/09)<br>79.5 |  |  |  |  |  |  |  |  |  |
| 12 | 0040  | Majestic (SWEPCO)                                   | 79.5                                      |  | 100.5                                 | (act 6/10)           |  |  |  |  |  |  |  |  |  |
|    | 2010  | Beech Ridge (APCO)                                  | 100.5                                     |  | 100.0                                 | (est. 0/10)          |  |  |  |  |  |  |  |  |  |
| 13 |   | Blue Canyon V (PSO)                                 | 08.0                                      |  | 08.0                                  | (est. 3/10)          |  |  |  |  |  |  |  |  |  |
|    | 1   | en DeKelb Wind Energy Center (KPCo                  | 30.5<br>100                               | 100                                      | - 00,0                                | 2010                 |  |  |  |  |  |  |  |  |  |
| 14 | L'<br>Cubtotal (Is  | ee-Dekalb wind Energy Center (Kr Co                 | 1 003 4                                   | 100                                      | 9034                                  | 2010                 |  |  |  |  |  |  |  |  |  |
|    | Subiotal ( <u>10</u>  | ienuneu morementar Projects)                        | 1,000.4                                   | 100                                      | 000.4                                 |                      |  |  |  |  |  |  |  |  |  |
| 15 | 2010  | Unidentified  | 600 ( <sub>(D)</sub>                      |  | -                                     | -                    |  |  |  |  |  |  |  |  |  |
|    | 2011  | Unidentified  | 800 J<br>650                              | -  | -                                     | -                    |  |  |  |  |  |  |  |  |  |
| 16 | 2012  | Unidemined  | 000                                       |  | -                                     | -                    |  |  |  |  |  |  |  |  |  |
| 17 | AEP System TOTA   | L (Including "Legacy" Wind)                         | 3,477                                     | 100 100                                  | 903                                   | 778                  |  |  |  |  |  |  |  |  |  |
| 17 | Established Short-Tern  | n (thru 2011) AEP Renewable GOAL                    | 2,000                                     |  |                                       |                      |  |  |  |  |  |  |  |  |  |
| 18 | <sup>(A)</sup> Assumes <u>all</u> neare                                 | r-term KPCo wind energy requirementsa               | s set forth in its 200<br>posed 100-MW PP | 9 IRP as two (2) 5<br>A/take from the LI | 50-MW trand<br>DWEC proje             | ches in 2010<br>ect. |  |  |  |  |  |  |  |  |  |
| 19 | <sup>(B)</sup> See KPCo Exhibit   | SCW-2   |   |  | · · · · · · · · · · · · · · · · · · · |                      |  |  |  |  |  |  |  |  |  |
|    | <sup>(C)</sup> On June 1, 2009, A                                       | AEPSC, on behalf of <u>all</u> of its regulated ope | rating company affi                       | liates, issued a Re                      | equest for P                          | roposal              |  |  |  |  |  |  |  |  |  |
| 20 | for 1,100 MW of   | renewable energy resources (amount requ             | ired to achieve 2,00                      | 0 MW 'target') to                        | be in-servic                          | e no later           |  |  |  |  |  |  |  |  |  |

than December 31, 2011.

21 <sup>(D)</sup> Additional solicitations *above* the recent 1,100 MW bid, necessary to achieve 'Per Plan' levels thru 2011 may be considered based on results of the June '09 solicitation.

| 1  |    | This Table 2 summary would indicate that as part of the 2,000 MW AEP System                |
|----|----|--|
| 2  |    | renewable resource goal by the end of 2011, the current plan for KPCo reflects the         |
| 3  |    | potential for as much as 100 MW (nameplate) of additional wind resources by year-end       |
| 4  |    | 2011 (50 MW in 2010, and 50 MW in 2011). Again, this total amount of wind resources is     |
| 5  |    | now represented by the proposed 100 MW acquisition from the LDWEC project. Recall,         |
| 6  |    | as identified on Table 1, this 100 MW cumulative total for KPCo, however, would still fall |
| 7  |    | below the 174 MW of (equivalent) wind capacity that would be required by KPCo to           |
| 8  |    | equally contribute—along with its affiliate AEP operating companies—in the achievement     |
| 9  |    | of an approximate seven percent (7%) AEP System target by 2013.                            |
| 10 | Q. | KPCO'S OVERALL RENEWABLE PLAN WOULD ADD RENEWABLE  |
| 11 |    | RESOURCES TO AN ELECTRIC UTILITY OPERATING IN A  |
| 12 |    | STATE—KENTUCKY—WHICH CURRENTLY HAS NO RENEWABLE  |
| 13 |    | PORTFOLIO STANDARD. WHY THEN IS THE ATTAINMENT OF SUCH                                     |
| 14 |    | RENEWABLE RESOURCE AMOUNTS NECESSARY, AND HOW CAN THAT                                     |
| 15 |    | BE CONSIDERED TO BE IN THE BEST INTERESTS OF THE CUSTOMERS OF                              |
| 16 |    | KPCO?  |
| 17 | А. | First and foremost, as will be discussed later in this testimony, the relative cost of     |
| 18 |    | electricity inclusive of the LDWEC wind generation under consideration, is competitive     |
| 19 |    | with alternative resources available to KPCo. Second, with the current federal PTCs for    |
| 20 |    | wind development now set to expire at the end of 2012, it would be anticipated that the    |
| 21 |    | costs of wind projects placed into service after that expiration date will significantly   |
| 22 |    | increase. As more fully discussed in the testimony of Company Witness Godfrey, by acting   |
| 23 |    | now to secure wind contracts, KPCo is locking in wind energy at a relatively low cost.     |

| 1  |    | Third, under the very reasonable prospect that a federal renewable energy standard will     |
|----|----|---|
| 2  |    | become lawwhether included as a component of more comprehensive GHG legislation,            |
| 3  |    | or carved-out under separate legislation-demand for renewable resources including wind      |
| 4  |    | energy will undoubtedly increase, further driving up the costs to KPCo's customers over     |
| 5  |    | the long-term.  |
| 6  |    | Therefore, the development of a KPCo plan to add sufficient renewable resources             |
| 7  |    | prior to the expiration of the PTCs could serve to mitigate KPCo's customers' exposure to   |
| 8  |    | the cost risks associated with such potential federal renewable energy and/or GHG           |
| 9  |    | legislation.  |
| 10 | Q. | FINALLY, GIVEN THAT THE RESOURCE PLANNING FOR AEP'S EASTERN                                 |
| 11 |    | ZONE IS ESTABLISHED ON BEHALF OF ALL OF THE AEP COMPANIES                                   |
| 12 |    | OPERATING IN THAT REGION, HOW DOES KPCO'S FUTURE RENEWABLE                                  |
| 13 |    | PORTFOLIO DISCUSSED IN THIS SECTION OF YOUR TESTIMONY                                       |
| 14 |    | COMPARE TO THE OVERALL AEP-EAST PLAN AS A WHOLE?  |
| 15 | А. | Exhibit SCW-2 offers a summary view of the KPCo renewable profile including the other       |
| 16 |    | AEP-East operating companies, as well as the AEP-West (SPP) operating companies that        |
| 17 |    | have been incorporated into the 2009 IRPs for the AEP-Eastern and AEP-Western Zones,        |
| 18 |    | respectively. In addition to identifying the respective (nameplate) MW amounts, by          |
| 19 |    | company, by year, by renewable alternative, the Exhibit also offers the relative percent of |
| 20 |    | each operating companies' retail energy sales that would be met by renewable generation     |
| 21 |    | resources.  |
| 22 |    | Specifically, this Exhibit SCW-2 suggests that KPCo and its affiliate AEP-East              |
|    |    |   |

23 operating companies are anticipated to generally converge with reasonably consistent total

ı.

| 1 | renewable generation mixes in both the targeted 2013 and 2020 timeframes discussed        |
|---|---|
| 2 | earlier in this testimony. Any deviation may be attributed to unique timing of any        |
| 3 | state-specific requirements, or the recognition that certain options, such as biomass and |
| 4 | solar, may not be generally available or economically viable until later in the planning  |
| 5 | horizon.  |

# VI. <u>ECONOMIC REVIEW OF THE LEE-DEKALB WIND ENERGY CENTER</u> <u>PROJECT</u>

6 Q. HAVE YOU PREPARED ANY ANALYSIS OF THE PPA TRANSACTIONS FOR

# 7 THE LDWEC PROJECT?

8 A. Yes. Exhibit SCW-3 identifies the estimated KPCo-specific annual revenue requirement
9 impacts associated with the proposed 100 MW PPA from the LDWEC project. Exhibit
10 SCW-3 represents a year-specific summarization of the estimated impacts of this

- 11 transaction would have on KPCo's production-related pre-tax costs of service (i.e. revenue
- 12 requirement). Exhibit SCW-3, has a public version and a version for which the Company
- 13 is seeking confidential treatment pursuant to KRS 61.878 and 804 KAR 5:001, Section 8.
- 14 Q. HOW WAS THIS ANALYSIS PERFORMED?

A. Separate dispatch emulations were performed in our Promod model comparing AEP-East
Member Company—including KPCo—production cost profiles that both included *and*excluded the assignment of this 100 MW of wind energy to KPCo. Based on a comparison
of those two emulations, then all KPCo variable *energy* costs directly associated with the
PPA contract <u>as well as</u> all avoided internal generation and/or "(AEP) Pool-related"
variable/energy costs could be uniquely identified. In addition to establishing a relative

21 variable cost comparison, recognizing the attendant *capacity* value of the wind resource,

- the incremental reductive impact on KPCo's AEP Pool capacity settlement charges was
   also determined.<sup>9</sup>
- 3 Q. WHAT WERE THE RESULTS OF THIS ANALYSIS?
- A. In summary, Exhibit SCW-3 (col. J) indicates that the LDWEC PPA would have an order
  of magnitude impact of 0.07 (seven one-hundredths) of a cent per kWh effect on KPCo's
  production-related costs over the ten-year average period (2010-2020). Stated another
- 7 way, a typical residential customer utilizing 1,000 kWh per month would pay
- 8 approximately 70 cents more on his/her monthly electric bill in exchange for this diverse,
- 9 carbon-free energy resource.
- 10 Q. WHAT ADDITIONAL ANALYSIS WAS PERFORMED?
- 11 A. Exhibit SCW-3 (col. L) also offered these respective net costs associated with the LDWEC
- 12 project, as a function of the estimated *wind energy to be received* from the KPCo's
- 13 proposed 100 MW share of the facility (col. C). That result suggests the "net" costs of the
- 14 project are generally in the \$15-to-\$18 per Mwh range.

# VII. CONCLUSIONS

15 Q. DO THESE ANALYSES DEMONSTRATE THE REASONABLENESS OF THE

- 16 COSTS OF THE LDWEC PROJECT PPA?
- 17 A. Yes. As reflected in Exhibit SCW-3, the cost from the wind generation to be received from
- 18 the LDWEC project PPA would be very competitive versus alternative resources for
- 19 KPCo, as it would represent a very small relative impact on going-forward costs of service.

<sup>&</sup>lt;sup>9</sup> For purpose of this calculation, intermittent resources such as wind are recognized in the AEP capacity settlement as offering a "Primary Capacity" contribution to the owning/purchasing Member Company equal to the estimated capacity factor of the resource. In other words, the 100 MW (nameplate) LDWEC would increase KPCo's Primary

| 1  |    | This is due in part to the implicit benefit of a lower PPA cost received via developer         |
|----|----|--|
| 2  |    | utilization and pass-through of available federal subsidies—discussed earlier in this          |
| 3  |    | testimony—such as the federal PTCs, as well as the ability to offset rising fossil fuel costs, |
| 4  |    | and energy and capacity charges avoided by KPCo through the AEP Pool.                          |
| 5  |    | Moreover, when comparing the (net) cost of the LDWEC project to the alternative                |
| 6  |    | that may be available to KPCo in lieu of having such renewable energy—i.e., the prospect       |
| 7  |    | of acquiring qualifying Renewable Energy Certificates (RECs)—then the ultimate benefits        |
| 8  |    | to KPCo's customers is brought into clearer focus. Based on this analysis, the (net) cost of   |
| 9  |    | this wind project (Exhibit SCW-3, col. L) when compared to Company estimates of such           |
| 10 |    | RECs (col. M) would suggest that these incremental or "net" costs of the LDWEC project         |
| 11 |    | are indeed anticipated to be lower than, alternatively, acquiring RECs alone. Plus,            |
| 12 |    | possessing the renewable energy offered by the project offers KPCo with the further,           |
| 13 |    | non-quantified societal benefit of a more environmentally-friendly generation portfolio.       |
| 14 |    | A final conclusion can also be drawn from the table of data extended at the bottom             |
| 15 |    | of Exhibit SCW-3 (cols L and M). That is, if KPCo were to defer a decision around the          |
| 16 |    | LDWEC Project by waiting until such time that available federal PTCs for wind                  |
| 17 |    | development would be anticipated to expire, the advantages offered by such earlier action      |
| 18 |    | would likewise be eliminated.  |
| 19 | Q. | DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?  |
| 20 | A. | Yes.   |

Capacity in the AEP-Pool by approximately 100 MW x 39.3%, or  $\sim$ 39 MW. The 39.3% figure representing the estimated annual capacity factor associated with this LWDEC project.

# AFFIDAVIT

Scott C. Weaver, upon first being duly sworn, hereby makes oath that if the foregoing questions were propounded to him at a hearing before the Public Service Commission of Kentucky, he would give the answers recorded following each of said questions and that said answers are true.

|                                | Suthan   |      |
|--------------------------------|--|------|
|                                | Scott C. Weaver                                    |      |
| State of Ohio                  | )  |      |
|                                | )ss  |      |
| County of Franklin             | )  |      |
|                                |  |      |
|                                |  |      |
|                                |  |      |
| Subscribed and sworn to before | ore me, a Notary Public, by Scott C. Weaver this _ | Alst |

2009. day of Becember Notary Public

Sharon Hutchens Notary Public-State of Ohio My Commission Expires November 17, 2014

2014 My Commission Expires

# EXHIBIT SCW-1

### Kentucky Power Company Projected Winter Peak Demands, Generating Capabilities, and Margins Based on (May 2009) Load Forecast (2008/2009 - 2022/2023) Per 2009 KPCO (and AEP-Eastern Zone) IRP

| (1) | (2) | (3) | (4) | (5)       | (6) | (7)       | (8) | (9) | (10) | (11) | (12) | (13)                        | (14)      | (15)          | (16)      | (17)          |
|-----|-----|-----|-----|-----------|-----|-----------|-----|-----|------|------|------|-----------------------------|-----------|---------------|-----------|---------------|
| , , |     |     |     | =Sum(1-4) |     | =Sum(5-6) |     |     |      |      |      | =((8)-(9))<br>+Sum(11)+(12) | =(13)-(5) | =(14)/(5)*100 | =(13)-(7) | =(16)/(7)*100 |

|         | Peok Domand - MW |           |         |           |        |               |        |      |          | Capacity - MW |                  |           |            |                |               | Reserve Margin - MW |               |               |  |
|---------|------------------|-----------|---------|-----------|--------|---------------|--------|------|----------|---------------|------------------|-----------|------------|----------------|---------------|---------------------|---------------|---------------|--|
|         | Peak Demand - WW |           |         |           |        |               |        |      |          |               |                  |           | Annual     | Total Capacity | Reserve       | % of Internal       | Reserve       | % of Internal |  |
| Winter  | Internal         | Internal  | DSM (b) | Committed | Net    | Interruptible | Total  | EX   | isting   | Net Celes     |                  |           | Purchases  |                | Margin        | Demand              | Margin After  | Demand        |  |
| Season  | Demand (a)       | Wholesale |         | Sales (c) | Demand | Demand        | Demand | Cap  | acity a  | Net Sales     |                  |           | 1 01010300 |                | Before        |                     | Interruptible |               |  |
|         |                  | Contracts |         |           |        |               |        | Pla  | annea    | (e)           |                  |           |            | 1              | Interruntible |                     |               |               |  |
|         |                  |           |         |           |        |               |        | Char | iges (a) |               | Planned Capacity | Additions | -          |                | Interruptione |                     |               |               |  |
|         |                  |           |         |           |        |               |        |      |          |               | Units            | MW (f)    |            |                |               |                     |               | (10.00)       |  |
| 2000/00 | 1 615            | 0         | (1)     | 15        | 1 629  | 0             | 1.629  | 1.   | .453     | 117           |                  |           |            | 1,336          | (293)         | (18.00)             | (293)         | (18.00)       |  |
| 2006/09 | 1,010            | 0         |         | 15        | 1 647  | 0             | 1 647  | 1    | 453      | 72            |                  |           |            | 1,381          | (266)         | (16.20)             | (266)         | (16.20)       |  |
| 2009/10 | 1,040            | 0         | (0)     | 0         | 1,047  | 0             | 1,654  | 1    | 453      | 72            | 50 MW Wind       | 6         | 1 0        | 1.387          | (267)         | (16.10)             | (267)         | (16.10)       |  |
| 2010/11 | 1,670            | 0         | (10)    | 0         | 1,004  | 0             | 1,054  | 1    | 453      | 66            | 50 MW Wind       | 6         | 0          | 1,400          | (256)         | (15.50)             | (256)         | (15.50)       |  |
| 2011/12 | 1,674            | 0         | (18)    | U         | 1,000  | 0             | 1,000  |      | 450      | (9)           | 00 MAT 1110      | 1         |            | 1 474          | (197)         | (11.80)             | (197)         | (11.80)       |  |
| 2012/13 | 1,691            | 0         | (20)    | 0         | 1,671  | 0             | 1,071  |      | ,400     |               |                  |           |            | 1 475          | (205)         | (12.20)             | (205)         | (12.20)       |  |
| 2013/14 | 1,702            | 0         | (22)    | 0         | 1,680  | 0             | 1,680  | 1,1, | ,453     | (9)           |                  |           |            | 1,470          | (238)         | (14 10)             | (238)         | (14.10)       |  |
| 2014/15 | 1,713            | 0         | (24)    | 0         | 1,689  | 0             | 1,689  | 1    | ,428     | (10)          |                  | 1         |            | 1,451          | (200)         | (14.10)             | (200)         | (16,70)       |  |
| 2015/16 | 1,719            | 0         | (24)    | 0         | 1,695  | 0             | 1,695  | 1    | ,388     | (11)          |                  |           |            | 1,412          | (203)         | (10.70)             | (203)         | (10.70)       |  |
| 2016/17 | 1 730            | 0         | (24)    | 0         | 1.706  | 0             | 1,706  | 1    | ,388     | (11)          |                  |           |            | 1,412          | (294)         | (17.20)             | (294)         | (17.20)       |  |
| 2010/17 | 1 741            | 0         | (24)    | 0         | 1,717  | 0             | 1.717  | 1    | .388     | (11)          |                  |           |            | 1,412          | (305)         | (17.80)             | (305)         | (17.80)       |  |
| 2017/10 | 1,741            | 0         | (24)    | 0         | 1 728  | n             | 1 728  | 1    | 388      | (11)          | 342 MW CT        | 342       | 0          | 1,753          | 25            | 1.40                | 25            | 1.40          |  |
| 2018/19 | 1,752            | 0         | (24)    | 0         | 1 722  | ő             | 1 732  | 1    | 388      | (11)          |                  |           |            | 1,753          | 21            | 1.20                | 21            | 1.20          |  |
| 2019/20 | 1,756            | 0         | (24)    | 0         | 1,732  | 0             | 1 740  |      | 388      | (11)          |                  |           |            | 1,753          | 4             | 0.20                | 4             | 0.20          |  |
| 2020/21 | 1,773            | U         | (24)    | U         | 1,749  | 0             | 1,(49  | 1    | 200      | (11)          |                  |           | 1          | 1,753          | (9)           | (0.50)              | (9)           | (0.50)        |  |
| 2021/22 | 1,786            | 0         | (24)    | 0         | 1,762  | U             | 1,702  |      | ,000     |               |                  |           |            | 1 747          | (22)          | (1.20)              | (22)          | (1.20)        |  |
| 2022/23 | 1,793            | 0         | (24)    | 0         | 1,769  | 0             | 1,769  |      | ,382     | 1 (11)        |                  | 1         | <u> </u>   | 1,141          |               |                     | <u> </u>      |               |  |

Notes: (a) Based on (May 2009) Load Forecast (not coincident with PJM's peak)

(b) Existing plus approved DSM initiatives.

(c) Includes companies MLR share of: NCEMC sale, through 2009/10 (220 MW)

(d) Reflects the following Winter capability assumptions:

EFFICIENCY IMPROVEMENTS:

2008/09: Big Sandy 1: 0 MW (lurbine) 2017/18 Rockport 1: 35 MW (valve) (offset to FGD derate) 2019/20: Rockport 2: 35 MW (valve) (offset to FGD derate) (d) continued

SEPARATE INJECTION DERATES: 2014/15: Big Sandy 2: 25 MW 2022/23: Rockport 1: 41 MW FGD DERATES: 2015/16: Big Sandy 2: 40 MW 2017/18: Rockport 1: 35 MW 2019/20: Rockport 2: 35 MW SCR DERATES: 2017/18: Rockport 1: 0 MW 2019/20: Rockport 2: 0 MW (e) Includes companies MLR share of:

Sale of 100 MW to Wolverine thru 2009/10 Purchase from Constellation (315 MW), 2009/10 through 2011/12 Contractual share of remaining Mone capacity MISO Sale of 348 MW in 2008/09 and 25 MW in 2009/10 Sale of 22 MW from Tanners Ck. 4 in 2010/11-2013/14 RPM Auction Sales 2007/08 - 2011/12 (775 MW, 1408 MW, 1379 MW , 1404 MW, 1391 MW ICAP) 3.6 MW capacity credit from SEPA's Philpot Dam via Blue Ridge contract

(f) For PJM capacity planning purposes, new wind capacity value is assumed to be 13% of nameplate

#### Kentucky Power Company Projected Summer Peak Demands, Generating Capabilities, and Margins Based on (May 2009) Load Forecast (2009 - 2023) Per 2009 KPCO (and AEP-Eastern Zone) IRP

|        | (1)        | (2)       | (3)     | (4)       | (5)       | (6)           | (7)       | (8)         | (9)       | (10)             | (11)      | (12)      | (13)  | (14)          | (15)              | (16)          | (17)              |
|--------|------------|-----------|---------|-----------|-----------|---------------|-----------|-------------|-----------|------------------|-----------|-----------|---|---------------|-------------------|---------------|-------------------|
|        | •          |           |         |           | =Sum(1-4) |               | =Sum(5-6) |             |           |                  |           |           | =((8)-(9))<br>+Sum(11)+(12)   | =(13)-(5)     | =(14)/(5)*10<br>0 | =(13)-(7)     | =(16)/(7)*10<br>0 |
|        | [          |           | Peak    | Demand -  | MW        |               |           |             |           | Capacity         | - MW      |           | Contraction of the second s |               | Reserve Ma        | argin - MW    |                   |
| Summer | Internal   | Internal  | DSM (b) | Committed | Net       | Interruptible | Total     | Existing    | Committed |                  |           | Annual    | Total Capacity  | Reserve       | % of Internal     | Reserve       | % of              |
| Season | Demand (a) | Wholesale |         | Sales (c) | Demand    | Demand        | Demand    | Capacity &  | Net Sales |                  |           | Purchases |   | Margin        | Demand            | Margin After  | Internal          |
| Season |            | Contracts |         |           |           |               |           | Planned     | (e)       |                  |           |           |   | Before        |                   | Interruptible | Demand            |
|        |            |           |         |           |           |               |           | Changes (d) |           | Planned Capacity | Additions |           |   | Interruptible |                   |               |                   |
|        |            |           |         |           |           |               |           |             |           | Units            | MW (f)    |           |   |               |                   |               |                   |
| 2009   | 1 308      | 0         | 0       | 15        | 1.323     | 0             | 1,323     | 1,452       | 80        |                  |           |           | 1,372   | 49            | 3.70              | 49            | 3.70              |
| 2010   | 1,338      | 0         | (18)    | 16        | 1.336     | 0             | 1,336     | 1,452       | 80        |                  |           |           | 1,372   | 36            | 2.70              | 36            | 2.70              |
| 2011   | 1,357      | 0         | (37)    | 0         | 1.320     | 0             | 1.320     | 1,452       | 73        | 50 MW Wind       | 6         | 0         | 1,385   | 65            | 4.90              | 65            | 4.90              |
| 2012   | 1 364      | 0         | (49)    | 0         | 1.315     | 0             | 1,315     | 1,452       | (2)       | 50 MW Wind       | 6         | 0         | 1,467   | 152           | 11.60             | 152           | 11.60             |
| 2012   | 1,379      | 0         | (61)    | 0         | 1.318     | 0             | 1,318     | 1,452       | (2)       |                  |           |           | 1,467   | 149           | 11.30             | 149           | 11.30             |
| 2014   | 1,389      | ő         | (74)    | 0         | 1.315     | 0             | 1.315     | 1,452       | (2)       |                  |           |           | 1,467   | 152           | 11.60             | 152           | 11.60             |
| 2015   | 1 400      | 0         | (86)    | 0         | 1.314     | 0             | 1,314     | 1,387       | (5)       |                  |           |           | 1,405   | 91            | 6.90              | 91            | 6.90              |
| 2016   | 1 408      | 0         | (86)    | 0         | 1.322     | 0             | 1.322     | 1,387       | (5)       |                  |           |           | 1,405   | 83            | 6.30              | 83            | 6.30              |
| 2017   | 1,420      | 0         | (86)    | 0         | 1.334     | 0             | 1.334     | 1,388       | (5)       |                  |           |           | 1,406   | 72            | 5.40              | 72            | 5,40              |
| 2018   | 1 431      | 0         | (86)    | 0         | 1.345     | 0             | 1,345     | 1,388       | (5)       | 314 MW CT        | 314       | 0         | 1,720   | 375           | 27.90             | 375           | 27.90             |
| 2019   | 1 441      | 0         | (86)    | 0         | 1.355     | 0             | 1,355     | 1,388       | (5)       |                  |           |           | 1,720   | 365           | 26.90             | 365           | 26.90             |
| 2020   | 1 448      | 0         | (86)    | 0         | 1.362     | 0             | 1,362     | 1,388       | (5)       |                  |           |           | 1,720   | 358           | 26.30             | 358           | 26.30             |
| 2021   | 1 462      | 0         | (86)    | 0         | 1.376     | 0             | 1,376     | 1,388       | (5)       |                  |           |           | 1,720   | 344           | 25.00             | 344           | 25.00             |
| 2022   | 1 474      | 0         | (86)    | 0         | 1.388     | 0             | 1,388     | 1,388       | (5)       |                  |           |           | 1,720   | 332           | 23.90             | 332           | 23.90             |
| 2023   | 1,483      | 0         | (86)    | 0         | 1,397     | 0             | 1,397     | 1,122       | (5)       | 306 MW CC        | 306       | 0         | 1,759   | 362           | 25.90             | 362           | 25.90             |

Notes: (a) Based on (May 2009) Load Forecast (not coincident with PJM's peak)

(b) Existing plus approved DSM initiatives.

(c) Includes companies MLR share of: NCEMC sale, through 2010 (220 MW)

 (d) Reflects the members ownership ratio of following summer capability assumptions: EFFICIENCY IMPROVEMENTS: 2009: Big Sandy 1: 0 MW (turbine) 2017: Rockport 1: 35 MW (valve) (offset to FGD derate) 2019: Rockport 2: 35 MW (valve) (offset to FGD derate) (d) continued SEPARATE INJECTION DERATES: 2015: Big Sandy 2: 25 MW 2023: Rockport 1: 41 MW FGD DERATES: 2015: Big Sandy 2: 40 MW 2017: Rockport 1: 35 MW 2019: Rockport 2: 35 MW SCR DERATES: 2017: Rockport 1: 0 MW 2019: Rockport 2: 0 MW RETIREMENTS: 2023: 260 MW (e) Includes companies MLR share of: Sale of 50 MW to Wisconsin Public Service in 2007 Sale of 100 MW to Wolverine thru 2009 Purchase from Constellation (315 MW), 2009 through 2011 Contractual share of remaining Mone capacity MISO Sale of 348 MW in 2008 and 25 MW in 2009 Sale of 22 MW from Tanners Ck. 4 in 2010-2014 RPM Auction Sales 2007-2011 (775 MW, 1408 MW, 1379 MW, 1404 MW, 1391 MW ICAP)
3.6 MW capacity credit from SEPA's Philpot Dam via Blue Ridge contract

(f) For PJM capacity planning purposes, new wind capacity value is assumed to be 13% of nameplate

# EXHIBIT SCW-2

### AEP-System; AEP-Eastern Zone; Kentucky Power Company CUMULATIVE Renewables Resources Required to Approach an Approximate 7% System "Target" by 2013 and 10% by 2020 \*\* That Would Be Reflective of Known or Emerging Federal or State-Specific Mandates

Per 2009 KPCO (AEP-Eastern Zone and AEP-Western [SPP] Zone) IRP

|            |         | Δ       | PCo     |                 |       | c     | SP      |          |       | c     | PCo     |          |       | I     | &.M     |          |       | ł            | (PCo    |          |              | AEI   | P-East               |          |
|------------|---------|---------|---------|-----------------|-------|-------|---------|----------|-------|-------|---------|----------|-------|-------|---------|----------|-------|--------------|---------|----------|--------------|-------|----------------------|----------|
| I          | Salar   | Mind    | Biomass | Renewbl         | Solar | Wind  | Biomass | Renewbl  | Solar | Wind  | Biomass | Renewbl  | Solar | Wind  | Biomass | Renewbl  | Solar | Wind         | Biomass | Renewbl  | Solar        | Wind  | Biomass              | Renewbl  |
|            | Nmolf   | Nmolt   | Fouriv  | Percent         | Nmnlt | Nmnlt | Equiv   | Percent  | Nmplt | Nmplt | Equiv   | Percent  | Nmplt | Nmplt | Equiv   | Percent  | Nmplt | <b>Nmplt</b> | Equiv   | Percent  | <u>Nmplt</u> | Nmplt | Equiv <sup>(C)</sup> | Percent  |
| DU 4/4NV.  |         | (MMA)   | (MN)    | of Sales        | (MW)  | (MW)  | (MW)    | of Sales | (MW)  | (MW)  | (MW)    | of Sales | (MW)  | (MW)  | (MW)    | of Sales | (MW)  | (MW)         | (MW)    | of Sales | (MW)         | (MW)  | (MW)                 | of Sales |
| by IIIIAA. | (10104) | (10144) | ()      | <u>or oures</u> |       |       |         |          |       |       |         | 0.09/    |       | 0     | 0       | 0.0%     | 1 0   | 0            | 0       | 0.0%     |              | 75    | -                    | 0.2%     |
| 2009       | 0       | 75      | 0       | 0.8%            | 0     | 0     | 0       | 0.0%     | 0     | 0     | U       | 0.0%     | 0     | 450   | 0       | 0.070    | 0     | 0            | 0       | 0.0%     | 3            | 525   | -                    | 1.5%     |
| 2010       | 0       | 276     | 0       | 2.5%            | 1     | 50    | 0       | 0.8%     | 2     | 50    | 0       | 0.6%     | U     | 150   | 0       | 2.3%     |       | Š            |         | 1 08/    | 6            | 1 226 | 10                   | 3 20%    |
| 2011       | 0       | 551     | 0       | 4.5%            | 2     | 150   | 0       | 2.0%     | 4     | 175   | 10      | 2.0%     | 0     | 300   | 0       | 4.7%     | U     | 00           |         | 1.9%     | 0            | 1,220 | 400                  | 5.270    |
| 2012       | 0       | 751     | 8       | 6.2%            | 6     | 276   | 57      | 5.1%     | 9     | 400   | 45      | 4.9%     | 0     | 400   | 0       | 6.2%     |       | 100          | ) 0     | 3.8%     | 15           | 1,926 | 109                  | 5.5%     |
| 2012 (b)   |         | 001     |         | 6.0%            | 1 11  | 426   | 57      | 7.0%     | 17    | 550   | 45      | 6.4%     | 0     | 500   | 107     | 9.3%     | 0     | 100          | / 19    | 4.6%     | 29           | 2,426 | 235                  | 7.0%     |
| 2013 '"    | 0       | 851     | 8       | 0.9%            |       | 420   | 57      | 7.0%     | 05    | 550   | 40      | 6.4%     | n n   | 500   | 107     | 9.2%     | 1 0   | 1100         | 19      | 4.6%     | 42           | 2.426 | 235                  | 7.0%     |
| 2014       | 0       | 851     | 8       | 6.9%            | 1/    | 426   | 57      | 7.0%     | 25    | 550   | 40      | 0.4%     |       | 500   | 407     | 0.2%     | 0     | 100          | 112     | 12 1%    | 56           | 2 426 | 385                  | 7.8%     |
| 2015       | 0       | 851     | 8       | 6.9%            | 22    | 426   | 57      | 7.0%     | 34    | 550   | 102     | 7.6%     | U     | 500   | 107     | 9.2%     | 0     | 100          | 112     | 12.170   | 70           | 2,420 | 295                  | 8.0%     |
| 2016       | 0       | 851     | 8       | 6.8%            | 28    | 466   | 57      | 7.5%     | 42    | 550   | 102     | 7.6%     | 0     | 560   | 107     | 10.0%    | υ     | 100          | 112     | 12.0%    | 10           | 2,520 | 305                  | 0.0 %    |
| 2017       |         | 851     | 8       | 7.0%            | 33    | 466   | 57      | 7.7%     | 50    | 550   | 102     | 7.7%     | 0     | 560   | 107     | 10.4%    | 9     | 100          | 112     | 11.9%    | 83           | 2,526 | 385                  | 8.0%     |
| 2017       |         | 001     | 0       | 6.70/           | 41    | 466   | 57      | 7 1%     | 59    | 550   | 229     | 10.3%    | 0     | 560   | 107     | 9.8%     | l p   | 100          | 112     | 11.8%    | 100          | 2,526 | 512                  | 8.6%     |
| 2018       | 0       | 851     | 8       | 0.1%            | 41    | 400   | 57      | 7.470    | 60    | 550   | 215     | 12.0%    |       | 560   | 107     | 9.8%     | ll /n | 100          | 112     | 11.7%    | 118          | 2,526 | 641                  | 9.2%     |
| 2019       | 0       | 851     | 50      | 7.4%            | 49    | 466   | 57      | 7.4%     | 69    | 550   | 315     | 12.0 %   | l š   | 500   | 107     | 0.7%     |       | 100          | 112     | 11 7%    | 134          | 2 726 | 641                  | 9.7%     |
| 2020       | 0       | 851     | 50      | 7.3%            | 56    | 666   | 57      | 9.8%     | 78    | 550   | 315     | 12.0%    | 0     | 560   | 107     | 9.7%     |       | 100          | 112     | 11.770   | L            | 2,120 | 0-41                 | 0.770    |

|                     |       | F     | so      |          |              | SW           | EPCO    |          |              | AEP-V        | Vest (SP             | P)       |
|---------------------|-------|-------|---------|----------|--------------|--------------|---------|----------|--------------|--------------|----------------------|----------|
|                     | Solar | Wind  | Biomass | Renewbl  | Solar        | Wind         | Biomass | Renewbl  | Solar        | Wind         | Biomass              | Renewbl  |
|                     | Nmplt | Nmplt | Equiv   | Percent  | <u>Nmplt</u> | <u>Nmplt</u> | Equiv   | Percent  | <u>Nmplt</u> | <u>Nmplt</u> | Equiv <sup>(C)</sup> | Percent  |
| Bv 1/1/XX:          | (MW)  | (MW)  | (MW)    | of Sales | (MW)         | (MW)         | (MW)    | of Sales | (MW)         | (MW)         | (MW)                 | of Sales |
| -,                  |       |       |         |          |              |              |         |          |              |              |                      |          |
| 2009                | 0     | 393   | 0       | 9.4%     | 0            | 31           | 0       | 0.6%     | 0            | 424          | 0                    | 5.0%     |
| 2010                | 0     | 393   | 0       | 9.0%     | 0            | 111          | 0       | 2.3%     | 0            | 503          | 0                    | 5.6%     |
| 2011                | 0     | 591   | 0       | 13.3%    | 0            | 211          | 0       | 4.3%     | 0            | 801          | 0                    | 8.6%     |
| 2012                | 0     | 591   | 0       | 12.8%    | 0            | 311          | 0       | 6.3%     | 0            | 901          | 0                    | 9.5%     |
| 2013 <sup>(b)</sup> | 0     | 591   | 0       | 12.7%    | 0            | 461          | 0       | 9.3%     | 0            | 1,051        | 0                    | 10.9%    |
| 2014                | 0     | 591   | 0       | 12.6%    | 0            | 461          | 0       | 9.2%     | 0            | 1,051        | 0                    | 10.9%    |
| 2015                | Ó     | 658   | 0       | 14.0%    | 0            | 494          | 0       | 9.8%     | 0            | 1,151        | 0                    | 11.8%    |
| 2016                | 0     | 658   | 0       | 13.9%    | 0            | 594          | 0       | 11.6%    | 0            | 1,251        | 0                    | 12.7%    |
| 2017                | 0     | 858   | 0       | 18.0%    | 0            | 594          | 9       | 11.7%    | 0            | 1,451        | 9                    | 14.7%    |
| 2018                | Ō     | 858   | 0       | 17.9%    | 0            | 594          | 9       | 11.6%    | 0            | 1,451        | 9                    | 14.6%    |
| 2019                | 0     | 858   | 0       | 17.8%    | 0            | 594          | 9       | 11.4%    | 0            | 1,451        | 9                    | 14.5%    |
| 2020                | 0     | 1,058 | 0       | 21.8%    | 0            | 594          | 9       | 11.3%    | 0            | 1,651        | 9                    | 16.3%    |



(a) Data exclude pre-existing conventional (run-of-river) hydro energy as a renewable source as it has been excluded from proposed federal RPS critena.

Further, renewable target 'basis' (denominator) was subsequently assumed to be reduced to include retail sales <u>only</u> based on emerging Federal proposed RPS/RES legislation, whereas the initial target basis was presumed to include internal (retail and wholesale) sales.

(b) 2012/2013 represent the initial years for Federal RPS/RES mandates as currently proposed in legislation before Congress. Further, 2013

would represent the initial year after the potential expiration of federal Production Tax Credits (PTC) for, particularly, wind resources. Establishment of a federal renewables standard would likely eliminate further extension of such PTC opportunities.

(c) Biomass "equivalent" capacity considers--for 'co-firing' or 'separate injection' alternatives--the relative % of the generating capacity of the unit (being co-fired) equivalent to the relative amount of biomass feedstock, by MMBtu of heat content, in the combined fuel mix. In other words, if a 600 MW (nameplate) is co-fired with biomass and the relative heat content of the biomass is 2% of the combined fuels' heat content, then the "Biomass Equiv" capacity represented above would be 600 MW x 2%, or 12 MW.

# EXHIBIT SCW-3

#### Kentucky Power Company Relative Change in Annual Revenue Requirement / Project Cost Comparison Due to Proposed 100 MW LDWEC PPA 2010-2020

| Δ        | B  | 0                                 | l n                        | E   | F  | G  | Н                                 | 1  | J   | and have been a set | к        | L  | IVI  |
|----------|--|-----------------------------------|----------------------------|---|--|--|-----------------------------------|--|---|---------------------|----------|--|--|
| ~        | KPCo /<br>LDWEC<br>Wind<br>Capacity<br>(Nameplate) | KPCo /<br>LDWEC<br>Wind<br>Energy | LDWEC PPA<br>Cost<br>(\$M) | <avoided><br/>Variable Costs,<br/>including AEP-<br/>Pool Energy<br/>Settlements<br/>(\$M)</avoided>            | <avoided><br/>Pool Capacity<br/>Settlement<br/>Costs<br/>(\$M)</avoided> | D+E+F =<br>KPCO (Total Co.)<br>(Net) Revenue<br>Requirement<br>Change re:<br>LDWEC Project<br>(1) (2)<br>(\$M) | KPCO<br>Internal<br>Load<br>(GWh) | G / H x 100 =<br>KPCo<br>Relative<br>(Net)<br>Revenue<br>Requirement<br>(3)<br>(¢/kWh) | 10+ Year<br>Average<br>(2010-2020)<br>(¢/kWh) |                     |          | G x 1000/C =<br>LDWEC (Net)<br>Cost per Mwh<br>of Wind<br>Generated<br>(per MWh)                               | versus<br>Estimated<br>Cost of RECs<br>(4)<br>(per ~MWh) |
|          | 10100  | 0000                              | (\$117)                    | (4)   | (,,,,,   |  |                                   |  |   |                     |          | CONFI  |  |
|          |  |                                   |                            |   | ITS  |  |                                   |  |   |                     |          | COMPIL   | ONENTS   |
|          |  |                                   | CONFIDENT                  | TAL COMI ONE  |  |  | (5)                               |  |   |                     | 2010 (5) | Contraction of the second  | <u>, , , , , , , , , , , , , , , , , , , </u>            |
| 2010 (5) | 100  |                                   |                            |   |  | 2.8  | 4,041 (**                         | 0.070  |   |                     | 2010     |  |  |
| 2011     | 100  |                                   |                            |   |  | 6.4  | 8,286                             | 0.077  |   |                     | 2011     |  |  |
| 2012     | 100  |                                   |                            |   |  | 6.6  | 8,354                             | 0.078  |   |                     | .2012    |  |  |
| 2012     | 100  |                                   |                            |   | and and the second second  | 6.5  | 8,417                             | 0.077  |   | e fordere           | 2013     |  |  |
| 2013     | 100  |                                   |                            | Carlos de C |  | 6.2  | 8,472                             | 0.074  |   |                     | 2014     |  |  |
| 2014     | 100  |                                   |                            |   |  | 6.5  | 8,530                             | 0.077  |   |                     | 2015     |  |  |
| 2015     | 100  |                                   |                            |   |  | 6.6  | 8,593                             | 0.076  |   |                     | 2016     |  |  |
| 2016     | 100  |                                   |                            |   |  | 62   | 8 651                             | 0.071  |   |                     | 2017     |  |  |
| 2017     | 100  |                                   | a series and               |   | And the second second  | 0.Z  | 9 707                             | 0.060  |   | dia arte da la      | 2018     |  |  |
| 2018     | 100  |                                   |                            |   |  | 0.2  | 0,707                             | 0.055  |   |                     | 2019     |  |  |
| 2019     | 100  |                                   |                            |   |  | 4.8  | 0,/02                             | 0.055  | 0.071   |                     | 2020     |  |  |
| 2020     | 100  |                                   |                            |   | an a                                 | 5.4  | 8,816                             | 0.001  | 0.071   |                     |          | The group and the second s |  |
| Ľ        |  |                                   |                            |   |  |  |                                   |  |   |                     | 0040     | a second a second second second second   |  |

|                            | 0044  | <ul> <li>A subscription of the second se<br/>second second s<br/>second second se</li></ul> |
|----------------------------|-------|--|
| LDWEC Project "Proxy"      | 2014  |  |
| IF FUTURE Wind Contracts   | 2015  |  |
| (Post-2012) were to        | 2016  |  |
| exclude 'Pass-thru' of     | 2017  |  |
| Federal PTCs (@ ~\$30/Mwh) | .2018 |  |
|                            | 2019  |  |
|                            | 2020  |  |

(1) (Net) Revenue Requirement determination excludes the monetization (credit to revenue requirement) of any RECs received under the assumption they would ultimately be required to be utilized/retired to achieve a potential Also, reflects a KPCo 'Total Company' (retail and wholesale) perspective

.(2) Assumed if wind PPAs not assigned to KPCo, would be assigned to another AEP (Pool) Member Company, so there would be no incremental MLR-related (Off-System) revenues

(3) As a function of KPCo annual (internal) net energy requirement.

(4) National REC estimates (nominal) per AEP Strategic and Economic Analysis (H209 'SEA' Case)

(5) Assumes PPA start date of July 1, 2010 .... therefore for 2010 'Relative (Net) Revenue Requirement' purposes, only Jul-Dec 2010 KPCo Internal Load reflected

(6) Although numerous regional/state REC markets exist today, assumes a fungible 'national' REC markets would be established in parallel with passage of a Federal RPS

**Column Definitions:** 

D. LDWEC PPA Cost - represents 3rd-party purchase costs under the 100 MW LDWEC PPA, and based on projected generation profiles for the LDWEC project

E. Variable Cost including AEP-Pool Energy Settlements - primarily fuel costs that are estimated to be offset by wind energy, as well as change in Primary (inter-co) sales to/from AEP Pool cos

F. Pool Capacity Settlement Charges - represents reduced capacity payments to other AEP Member Companies due to the assumed capacity value of PPA assigned to KPCo

H. Net Revenue Requirement Change - is the sum of columns D through F

I. KPCo Relative Net Revenue Requirement - represents the average incremental costs of the LDWEC Project --in cents/kWh-- based on (divided by) KPCo's internal energy requirements

J. Represents the (simple) average (Net) Revenue Requirement impact of the LDWEC Project in cents/kWh over the 2010-2020 period

L. Represents the annual (Net) Cost of the LDWEC project based on (divided by) the corresponding annual estimated wind generated by that project

# EXHIBIT 5

1. Amounts and kinds of stock authorized.

2,000,000 Shares of Common Stock, \$50 par value.

2. Amounts and kinds of stock issued and outstanding.

1,009,000 Shares of Common Stock, \$50 par value, recorded at \$50,450,000.

3. Terms of preference of preferred stock whether cumulative or participating, or on dividends or assets or otherwise.

The Company has no preferred stock authorized or outstanding.

4. Brief description of each mortgage on property of applicant, giving date of execution, name of mortgagor, name of mortgagee, or trustee, amount of indebtedness authorized to be secured thereby, and the amount of indebtedness actually secured, together with any sinking funds provisions.

None

5. Amount of bonds authorized, and amount issued, describing each class separately, and giving date of issue, face value, rate of interest, date of maturity and how secured, together with the amount of interest paid thereon during the last fiscal year.

None

6. Each note outstanding, giving date of issue, amount, date of maturity, rate of interest, in whose favor, together with amount of interest paid thereon during the twelve months ending September 30, 2009.

|                  |            |          | Principal     | Principal     | Interest Expense | Interest Expense |
|------------------|------------|----------|---------------|---------------|------------------|------------------|
|                  |            |          | Amount        | Amount        | 12 Months        | 12 Months        |
|                  |            |          | as of         | as of         | Ending           | Ending           |
| Date of          | Date of    | Rate of  | December 31,  | September 30, | December 31,     | September 30,    |
| Issue            | Maturity   | Interest | 2008          | 2009          | 2008             | 2009             |
| Senior Notes     |            |          |               |               |                  |                  |
| 06/13/2003       | 12/01/2032 | 5.625%   | \$75,000,000  | \$75,000,000  | \$4,218,750      | \$4,218,750      |
| 09/11/2007       | 09/15/2017 | 6.000%   | \$325,000,000 | \$325,000,000 | \$19,500,000     | \$19,500,000     |
| 06/18/2009       | 06/18/2021 | 7.250%   |               | \$40,000,000  |                  | \$826,301        |
| 06/18/2009       | 06/18/2029 | 8.030%   |               | \$30,000,000  |                  | \$686,400        |
| 06/18/2009       | 06/18/2039 | 8.130%   |               | \$60,000,000  |                  | \$1,389,896      |
| Promissory Notes |            |          |               |               |                  |                  |
| 02/05/2004       | 06/01/2015 | 5.250%   | \$20,000,000  | \$20,000,000  | \$1,050,000      | \$1,050,000      |

Short Term Borrowings

The Company participates in the AEP System Corporate Borrowing Program.

As of December 31, 2008, the Company had \$131,398,655 of Short Term Debt borrowing, the interest expense was \$2,080,812 and the Weighted Average Interest Rate was 3.96%.

As of September 30, 2009, the Company had no Short Term Debt borrowing, but the Interest Expense for the Twelve Months Ended September 30, 2009 was \$2,056,695, and the Weighted Average Interest Rate was 2.29%. The Company was in a borrowed position for 306 days in the last twelve months.

Note: The Senior Notes in 2003 and 2007 were issued in a public offering. The Senior Notes in 2009 were issued in a private offering to qualified institutional investors. The Promissory Notes were issued to American Electric Power, Inc.

### KENTUCKY POWER COMPANY FINANCIAL EXHIBIT JUNE 30, 2005

7. Other indebtedness, giving same by classes and describing security, if any, with a brief statement of the devolution of assumption of any portion of such indebtedness upon or by person or corporation if the original liability has been transferred, together with amount of interest paid thereon during the twelve months ending September 30, 2009.

The Company has no other indebtedness.

8. Rate and amount of dividends paid during the five previous calendar years, and the amount of capital stock on which dividends were paid each year:

|      | Common       | Common      | Dividend per |
|------|--------------|-------------|--------------|
|      | Dividend     | Shares      | Common       |
| Year | Amount       | Outstanding | Share        |
|      |              |             |              |
| 2005 | \$2,500,000  | 1,009,000   | \$2.48       |
| 2006 | \$15,000,000 | 1,009,000   | \$14.87      |
| 2007 | \$12,000,000 | 1,009,000   | \$11.89      |
| 2008 | \$14,000,000 | 1,009,000   | \$13.88      |
| 2009 | \$13,500,000 | 1,009,000   | \$13.38      |

9. Detailed income statement and balance sheet (see attached pages 3 - 16).

# KENTUCKY POWER COMPANY BALANCE SHEET - SEPTEMBER 30, 2009 ASSETS

Line No.

|    | ELECTRIC UTILITY PLANT:                     |                 |                 |
|----|---|-----------------|-----------------|
| 1  | In Service                                  |                 | \$1.522.919.582 |
| 2  | Property Under Canital Leases               |                 | 3 880 459       |
| 2  | Flootrie Dlant Hold for Euture Hon          |                 | 6 808 047       |
| 3  |   |                 | 0,000,047       |
| 4  | Construction Not Classified                 |                 | 00,009,091      |
| 5  | Accrued Capital Leases                      |                 | 39,883          |
| 6  | Construction Work In Progress               |                 | 28,208,039      |
| 7  | TOTAL ELECTRIC UTILTIY PLANT                |                 | 1,628,516,801   |
| 8  | Accumulated Provision for Depreciation of   |                 |                 |
| 0  | Electric Utility Plant In Service           | (\$506,654,832) |                 |
| 9  | Electric Utility Plant In Service           | (22,784,261)    | (529,439,093)   |
| 10 |   | ********        | 1 099 077 708   |
| 10 |   |                 |                 |
|    |   |                 |                 |
| 11 | Non Hillin Proporty                         |                 | 5 /01 178       |
| 11 | Accumulated Dravision for Depreseition      |                 | 5,451,170       |
| 12 | Accumulated Provision for Depreciation      |                 | (196 610)       |
| 10 | and Amonization                             |                 | (100,010)       |
| 13 | Non-Utility Property WIP                    |                 | 4,054           |
| 14 | Other Investments                           |                 | 313,658         |
| 15 | SO2 Allowance Inventory                     |                 | 6,698,929       |
| 16 | Long Term Energy Trading Contracts          |                 | 11,692,825      |
| 17 | TOTAL OTHER PROPERTY AND INVESTMENTS        |                 | 24,014,034      |
|    | CURRENT AND ACCRUED ASSETS:                 |                 |                 |
| 18 | Cash and Cash Equivalents                   |                 | 582,297         |
|    | Advances to Affiliates                      |                 |                 |
| 19 | (Notes Receivables to Associated Companies) |                 | 4,197,300       |
|    | Accounts Receivable:                        |                 |                 |
| 20 | Customers                                   |                 | 12 746 789      |
| 21 | Miscellaneous                               |                 | 4 720 763       |
| 21 |   |                 | (862.220)       |
| 22 | Uncollectible Accounts                      |                 | 12 041 690      |
| 23 | Associated Companies                        |                 | 12,041,009      |
| 24 | Accounts Receivable - Net                   |                 | 28,646,021      |
|    | Materials and Supplies:                     |                 |                 |
| 25 | Fuel  |                 | 43,334,804      |
| 26 | SO2 Allowance Inventory - Current           |                 | 882,667         |
| 27 | CO2 Allowance Inventory - Current           |                 | 0               |
| 28 | Urea  |                 | 233,950         |
| 29 | Other Accounts                              |                 | 10,438,385      |
| 30 | Total Material and Supplies                 |                 | 54,889,806      |
| 31 | Accrued Utility Revenues                    |                 | (438.235)       |
| 32 | Energy Trading Cont Current Asset           |                 | 17.157.190      |
| 22 | Prenavments & Other Current Assets          |                 | 10 178 528      |
| 55 | riepayments a other ourient rissets         |                 | 10,110,020      |
| 34 | TOTAL CURRENT AND ACCRUED ASSETS            |                 | 115,212,907     |
|    |   |                 |                 |
| 35 | Regulatory Assets                           |                 | 182,641,811     |
|    | Deferred Charges                            |                 |                 |
| 36 | Other Deferred Charges                      |                 | 73,637,052      |
|    |   |                 |                 |
| 07 | IUTAL REGULATURI ASSETS AND                 |                 | 050 070 000     |
| 37 | UEFERREU UHARGES                            |                 | 200,278,863     |
|    |   |                 |                 |
| 38 | TOTAL ASSETS AND OTHER DEBITS               |                 | \$1,494,583.512 |
|    |   |                 |                 |

### KENTUCKY POWER COMPANY BALANCE SHEET - SEPTEMBER 30, 2009 LIABILITIES

Line

No. CAPITALIZATION AND LONG TERM DEBT Common Stock - Par Value \$50 1 Authorized: 2.000.000 Shares 2 Outstanding: 1,009,000 Shares \$50,450,000 3 Paid-In Capital 238,371,882 4 **Retained Earnings** 142,220,208 5 Common Shareowners Equity 431,042,090 6 7 Advances from Associated Companies 20,000,000 530,000,000 8 Senior Unsecured Notes Unamortized Discount LTD - Senior Unsecured Note (1,319,906)9 Long Term Debt 548,680,094 10 11 TOTAL CAPITALIZATION AND LONG TERM DEBT 979,722,184 OTHER NONCURRENT LIABILITIES 11 **Obligations Under Capital Lease** 1,199,943 Accumulated Provisions - Miscellaneous 54,438,282 12 TOTAL OTHER NONCURRENT LIABILITIES 55,638,225 13 -----CURRENT AND ACCRUED LIABILITIES Long-Term Debt Due within 1 Year 0 14 22,864,104 Accounts Payable 15 21,993,284 Accounts Payable to Associated Companies 16 17,760,869 17 **Customer Deposits** 6,996,535 18 **Taxes Accrued** 6,583,909 19 Interest Accrued 0 **Dividends Declared** 20 798.960 **Obligations Under Capital Lease** 21 6,374,115 **Risk Management Liabilities** 22 14,081,680 Other Current and Accrued Liabilities 23 TOTAL CURRENT AND ACCRUED LIABILITIES 97,453,456 24 DEFERRED CREDITS AND OPERATING RESERVES 329,255,271 25 Accumulated Deferred Income Taxes 26 Accumulated Deferred Investment Tax Credit 1,902,856 20,674,807 **Regulatory Liabilities** 27 4,788,504 Long-Term Risk Management Liabilities 28 **Customer Advances for Construction** 59,441 29 30 Other Deferred Credits 5,088,768 361,769,647 TOTAL DEFERRED CREDITS AND OPERATING RESERVES 31 32 TOTAL LIABILITIES AND OTHER CREDITS

\$1,494,583,512 

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# KENTUCKY POWER COMPANY STATEMENT OF RETAINED EARNINGS AND OTHER PAID-IN CAPITAL FOR THE TWELVE MONTHS ENDED SEPTEMBER 30, 2009

Line No.

| 1<br>2 | RETAINED EARNINGS:<br>BALANCE AT OCTOBER 1, 2008<br>BALANCE TRANSFERRED FROM (NET) INCOME                | \$150,243,243<br>11,976,965  |
|--------|--|------------------------------|
| 3      | TOTAL  | 162,220,208                  |
| 4      | CASH DIVIDENDS DECLARED ON COMMON STOCK  | 20,000,000                   |
| 5      | BALANCE AT SEPTEMBER 30, 2009  | \$142,220,208<br>=========   |
| 6<br>7 | OTHER PAID-IN CAPITAL:<br>DONATIONS RECEIVED FROM SHAREHOLDERS<br>ACCUMULATED OTHER COMPREHENSIVE INCOME | \$238,750,000<br>(\$378,118) |
| 8      | TOTAL OTHER PAID-IN CAPITAL  | \$238,371,882                |

Page 5 of 16

# KENTUCKY POWER COMPANY OPERATING REVENUES BY REVENUE CLASS FOR THE 12 MONTHS ENDED SEPTEMBER 30, 2009

Page 6 of 16

| line | FERC Account No.         |   |   |
|------|--------------------------|---|---|
| No.  | Sales of Electricity     | Title                                       |   |
| 1    | 440                      | Residential Sales                           | \$205,298,677   |
|      | 442                      | Commercial & Industrial Sales:              |   |
| 2    |                          | Commercial                                  | 120,964,116   |
| 3    |                          | Industrial                                  | 189,828,623   |
| 4    | 444                      | Public Street & Highway Lighting            | 1,357,528   |
| 5    | 445                      | Other Sales to Public Authorities           | 0   |
| 6    |                          | Subtotal - Total Sales - Ultimate Customers | 517,448,944   |
| 7    | 447                      | Sales for Resale                            | 147,753,239   |
| 8    |                          | Subtotal Sales of Electricity               | \$665,202,183   |
| 9    | 449                      | Provision for Rate Refund                   | (\$12,698,791)  |
| 10   |                          | Total Sales of Electricity                  | \$652,503,392   |
|      | Other Operating Revenues |   |   |
| 11   | 411                      | Gain / Loss on Disposition of Allowances    | \$441,051   |
| 12   | 450                      | Forfeited Discounts                         | 1,809,068   |
| 13   | 451                      | Miscellaneous Service Revenues              | 395,706   |
| 14   | 454                      | Rent form Electric Property                 | 5,107,159   |
| 15   | 456                      | Other Electric Revenues                     | 9,665,000   |
| 16   |                          | Total Other Operating Revenues              | \$17,417,984  |
|      |                          |   | party source same barry source party source source source dama dama<br>party source party source party actual dama source barry source source areas |

# KENTUCKY POWER COMPANY STATEMENT OF INCOME FOR THE 12 MONTHS ENDED SEPTEMBER 30, 2009

Page 7 of 16

Line

No.

| 1<br>2<br>3        | OPERATING REVENUE - ELECTRIC<br>Operating Revenue - Sales To Non Affiliates<br>Operating Revenue - Sales To Affiliates<br>Provision for Rate Refund                                | \$621,451,786<br>61,168,381<br>(12,698,791)          |
|--------------------|--|--|
| 4                  | TOTAL OPERATING REVENUES   | 669,921,376  |
| 5<br>6             | OPERATING EXPENSES - ELECTRIC<br>Operating Expense<br>Maintenance Expense  | 502,195,196<br>49,497,258                            |
| 7                  | TOTAL OPERATION & MAINTENANCE  | 551,692,454  |
| 8<br>9<br>10<br>11 | Depreciation and Amortization<br>Taxes Other Than Income Taxes<br>State Income Taxes<br>Federal Income Taxs - Current and Deferred   | 51,050,135<br>11,395,860<br>(1,043,502)<br>6,506,367 |
| 12                 | TOTAL OPERATING EXPENSES   | 619,601,314  |
| 13                 | NET OPERATING INCOME   | 50,320,062   |
| 14<br>15<br>16     | OTHER INCOME AND DEDUCTIONS<br>Other Income<br>(Includes Allowance for Funds Used During Construction)<br>Other Income Deductions<br>Taxes Applicable to Other Income & Deductions | 75,509<br>(2,306,182)<br>856,736                     |
| 17                 | TOTAL OTHER INCOME AND DEDUCTIONS  | (1,373,937)  |
| 18                 | INCOME BEFORE INTEREST CHARGES   | 48,946,125   |
| 19                 | INTEREST CHARGES<br>(Net of Allowance for Borrowed Funds Used During Construction)   | 36,969,160   |
| 20                 | NET INCOME   | 11,976,965   |
| 21                 | EARNINGS FOR COMMON STOCK  | 11,976,965   |
| 22                 | DIVIDENDS DECLARED ON COMMON STOCK   | 20,000,000   |
| 23                 | UNDISTRIBUTED NET INCOME   | (\$8,023,035)  |
|                    |  |  |

Line No.

| OPERATING EXPENSES        |
|---------------------------|
| (OPERATION & MAINTENANCE) |

|                | POWER PRODUCTION EXPENSES  |                                     |
|----------------|--|-------------------------------------|
| 1<br>2         | Operation - Fuel<br>Operation - Other  | \$194,217,195<br>14,432,191         |
| 3<br>4         | Total Operation<br>Maintenance   | 208,649,386<br>13,912,404           |
| 5              | TOTAL STEAM POWER GENERATION   | 222,561,790                         |
| 6<br>7         | TOTAL OTHER POWER GENERATION<br>OTHER POWER SUPPLY EXPENSES:<br>Purchase Power Expense<br>Interchange Power Net - System Account | \$177,983,480<br>76,782,935         |
| 8<br>9<br>10   | Total - Purchased Power<br>System Contol & Load Dispatch<br>Other Expenses   | 254,766,415<br>400,304<br>2,875,600 |
| 11             | TOTAL OTHER POWER SUPPLY EXPENSES  | 258,042,319                         |
| 12<br>13       | TOTAL POWER PRODUCTION - OPERATION<br>TOTAL POWER PRODUCTION - MAINTENANCE   | 466,691,705<br>13,912,404           |
| 14             | TOTAL POWER PRODUCTION EXPENSES  | 480,604,109                         |
| 15<br>16       | TRANSMISSION - Operation<br>- Maintenance  | (2,739,492)<br>3,053,604            |
| 17             | TOTAL TRANSMISSION EXPENSES  | 314,112                             |
| 18<br>19       | REGIONAL MARKET EXPENSES<br>Regional Market Operation Expenses   | 1,190,898                           |
| 20             | TOTAL REGIONAL MARKET EXPENSES   | 1,190,898                           |
| 21<br>22       | DISTRIBUTION - Operation<br>- Maintenance  | 7,746,849<br>31,111,374             |
| 23             | TOTAL DISTRIBUTION EXPENSES  | 38,858,223                          |
| 24             | CUSTOMER ACCOUNTS EXPENSE - OPERATION  | 2,949,617                           |
| 25             | CUSTOMER SERVICE & INFORMATION EXPENSES - OPERATION  | 1,802,054                           |
| 26             | SALES EXPENSES - OPERATION   | 77                                  |
| 27<br>28       | ADMINISTRATIVE & GENERAL EXPENSES - Operation<br>- Maintenance   | 21,888,036<br>1,419,877             |
| 29             | TOTAL ADMINISTRATIVE & GENERAL EXPENSES  | 23,307,913                          |
| 30             | SUBTOTAL OPERATION & MAINTENANCE EXPENSES  | 549,027,003                         |
| 31<br>32<br>33 | GAINS FROM DISPOSITON OF UTILITY PLANT<br>FACTORED CUSTOMER A/R EXPENSE<br>FACTORED CUSTOMER A/R BAD DEBT                        | (1,861)<br>1,427,709<br>1,239,603   |
| 34             | TOTAL OPERATION & MAINTENANCE EXPENSES   | \$551,692,454                       |

# KENTUCKY POWER COMPANY ANALYSIS OF FEDERAL INCOME TAXES FOR THE 12 MONTHS ENDED SEPTEMBER 30, 2009

Line

| No. | Ourrent Federal Income Toylog                   |                     |
|-----|---|---------------------|
|     |   | **                  |
|     | S.E.C. Allocation                               | -                   |
| 1   | FIT - Utility Operating Income - Regular        | (14,594,607)        |
| 2   | FIT - Prior Year Adjustments                    | 561,634             |
| 3   | Total Current FIT                               | (14,032,973)        |
|     | Deferred Federal Income Taxes - Net of Feedback | _                   |
| 4   | TAXES CAPD                                      | (47,019)            |
| 5   | PENSIONS CAPD                                   | (5,828)             |
| 6   | SAVINGS CAPD                                    | (3,378)             |
| 7   | BK VS TAX DEPR - NORM                           | 10,885,848          |
| 8   | ABFUDC  | 101,752             |
| 9   | ABFUDC-HRJ POST IN-SERV                         | (326,655)           |
| 10  | SEC 481 PENS/OPEB ADJUSTMENT                    | (000,000)           |
| 11  |   | (293,299)           |
| 12  |   | (7,565,876)         |
| 13  | PROVS POSS REV REFDS-A/L                        | 249,967             |
| 14  |   | (08,007)            |
| 15  |   | 1,272,000           |
| 10  | BWIX UNIT OF PROPERTY ADJ-SEC 401 ADJ           | 9,760,750           |
| 17  |   | (907,030)           |
| 10  |   | 550,540             |
| 19  |   | (3 625 953)         |
| 20  | MARK & SPREAD-DEFL-203-A/L                      | 3 404 167           |
| 21  |   | 5,404,107<br>01.874 |
| 22  |   | (1 211 622)         |
| 23  |   | 384 922             |
| 24  | SUDDI EMENITAL EXECUTIVE RETIREMENT PLAN        | (1 194)             |
| 25  | ACORD SLIP EXEC RETIR PLAN COSTS-SEAS 158       | 633                 |
| 20  | ACCRD BK SUP, SAVINGS PLAN EXP                  | (34 821)            |
| 28  | ACCRUED PSI PLAN EXP                            | 136 135             |
| 29  | BK PROVUNCOUL ACCTS                             | 1 582 343           |
| 30  | ACCRD COMPANYWIDE INCENTY PLAN                  | 1                   |
| 31  | PROV-TRADING CREDIT RISK - A/L                  | (36,922)            |
| 32  | PROV-FAS 157 - A/L                              | (13,576)            |
| 33  | ACCRUED BOOK VACATION PAY                       | (46,295)            |
| 34  | ACCRUED INTEREST-LONG-TERM - FIN 48             | (92,496)            |
| 35  | REG ASSET - DEFERRED RTO COSTS                  | (52,342)            |
| 36  | FEDERAL MITIGATION PROGRAMS                     | 149,126             |
| 37  | STATE MITIGATION PROGRAMS                       | 220,767             |
| 38  | DEFD BK CONTRACT REVENUE                        | 4,745               |
| 39  | BK DEFL-DEMAND SIDE MNGMT EXP                   | (8,758)             |
| 40  | BOOK > TAX BASIS - EMA-A/C 283                  | (75,973)            |
| 41  | DEFD TAX GAIN-EPA AUCTION                       | 13,496              |
| 42  | ADVANCE RENTAL INC (CUR MO)                     | 3,168               |
| 43  | REG LIAB-UNREAL MTM GAIN-DEFL                   | (1,123,681)         |
| 44  | REG ASSET - SFAS 158 - PENSIONS                 | (384,922)           |
| 45  | REG ASSET - SFAS 158 - SERP                     | (633)               |

Line No.

| 46 | REG ASSET - SFAS 158 - OPEB                       | (415,428)   |
|----|---|-------------|
| 47 | CAPITALIZED SOFTWARE COSTS-TAX                    | 270         |
| 48 | BOOK LEASES CAPITALIZED FOR TAX                   | 25,359      |
| 49 | CAPITALIZED SOFTWARE COST-BOOK                    | (470,219)   |
| 50 | LOSS ON REACQUIRED DEBT                           | (11,777)    |
| 51 | ACCRD SFAS 106 PST RETIRE EXP                     | (217,888)   |
| 52 | ACCRD OPEB COSTS - SFAS 158                       | 415,429     |
| 53 | ACCRD SFAS 112 PST EMPLOY BEN                     | 126,532     |
| 54 | ACCRD BOOK ARO EXPENSE - SFAS 143                 | (1,007,386) |
| 55 | ACCRUED SALES & USE TAX RESERVE                   | 535,875     |
| 56 | ACCRD SIT TX RESERVE-LNG-TERM-FIN 48              | (18,226)    |
| 57 | FIN 48 DSIT                                       | 15,273      |
| 58 | BK DEFL - MERGER COSTS                            | 11,584      |
| 59 | REG ASSET - ACCRUED SFAS 112                      | (126,531)   |
| 60 | 1991-1996 IRS AUDIT SETTLEMENT                    | 9,247       |
| 61 | TAX BASIS BALANCE SHEET ADJUST                    | 239,061     |
| 62 | DFIT - Prior Year Adjustments                     | 4,159,108   |
| 63 | Total Deferred FIT - Net of Feedback              | 21,365,762  |
|    | Deferrred Investment Tax Credit - Net of Feedback |             |
| 64 | ITC Adjustment - 4%                               | (3)         |
| 65 | ITC Adjustment - 10%                              | (826,421)   |
| 66 | Total ITC Adjustments - Net of Feedback           | (826,424)   |
| 67 | Total Federal Income Taxes - Current and Deferred | 6,506,365   |

#### KENTUCKY POWER COMPANY MONTHLY BEGINNING AND ENDING BALANCES OF ELECTRIC PLANT IN SERVICE FOR 12 MONTHS ENDED SEPTEMBER 30, 2009

| Line<br>No. |                                       | September<br>2008 | October<br>2008            | November<br>2008 | December<br>2008 | January<br>2009 | February<br>2009 | March<br>2009   | April<br>2009            | May<br>2009                  | June<br>2009                 | July<br>2009               | August<br>2009             | September<br>2009        |
|-------------|---------------------------------------|-------------------|----------------------------|------------------|------------------|-----------------|------------------|-----------------|--------------------------|------------------------------|------------------------------|----------------------------|----------------------------|--------------------------|
|             | Asset Retirement Obligation           |                   |                            | A 100 100        | 00 007 100       | AA AA7 400      | 00 007 (00       | ca aa7 (aa      | CO 007 400               | CO 207 400                   | 62 222 400                   | 60 707 ADD                 | \$2 227 422                | \$3 337 499              |
| 1           | 317 - ARO Steam Production Plant      | \$468,403         | \$468,403                  | \$468,403        | \$3,337,422      | \$3,337,422     | \$3,337,422      | \$3,337,422     | 33,337,422               | 53,337,422                   | 53,337,422                   | \$3,337,422                | \$3,337,422                | \$3,337,422              |
| 2           | Total Asset Retirement Obligation     | \$468,403         | \$468,403                  | \$468,403        | \$3,337,422      | \$3,337,422     | \$3,337,422      | \$3,337,422     | 33,337,422               | \$3,337,42Z                  | \$3,337,422                  | <i>43,331,422</i>          | 55,557,42Z                 | 53,557,422               |
|             | Intangible Plant                      |                   |                            |                  |                  |                 |                  | 050 040         | 070.040                  | 000.010                      | 000 040                      | 652.040                    | 652.010                    | \$52.040                 |
| 3           | 302 - Franchises and Consents         | \$52,919          | \$52,919                   | \$52,919         | \$52,919         | \$52,919        | \$52,919         | \$52,919        | \$52,919                 | \$52,919                     | \$52,919                     | \$52,919                   | \$52,919                   | \$02,919<br>\$21,018,088 |
| 4           | 303 - Misc Intangible Plant           | \$22,318,217      | \$22,511,669               | \$22,270,727     | \$22,307,146     | \$20,053,400    | \$20,247,354     | 520,345,379     | 520,442,349              | \$20,571,121                 | \$20,702,930                 | \$20,017,000               | \$20,911,900               | \$21,010,900             |
| 5           | Total Intangible Plant                | \$22,371,136      | \$22,564,588               | \$22,323,646     | \$22,360,066     | \$20,106,319    | \$20,300,273     | \$20,398,298    | \$20,495,268             | \$20,624,040                 | 520,755,649                  | \$20,670,566               | \$20,904,019               | 321,071,507              |
|             | Steam Production Plant                |                   |                            |                  |                  |                 |                  |                 |                          |                              |                              |                            |                            | A 4 474 5 44             |
| 6           | 310 - Land and Land Rights            | \$1,076,546       | \$1,076,546                | \$1,076,546      | \$1,076,546      | \$1,076,546     | \$1,076,546      | \$1,076,546     | \$1,076,546              | \$1,076,546                  | \$1,076,546                  | \$1,076,546                | \$1,076,546                | \$1,076,546              |
| 7           | 311 - Structures and Improvements     | \$40,123,663      | \$40,123,164               | \$40,123,164     | \$40,583,920     | \$40,763,687    | \$40,812,496     | \$41,275,404    | \$41,396,833             | \$41,399,217                 | \$41,399,217                 | 541,399,217                | \$41,604,336               | \$41,000,707             |
| 8           | 312 - Boiler Plant Equipment          | \$344,468,813     | \$344,478,572              | \$344,684,356    | \$355,237,890    | \$355,889,403   | \$356,581,686    | \$358,288,837   | \$358,778,915            | \$358,749,745                | \$358,773,235                | 5350,057,275               | \$330,033,143              | \$300,130,413            |
| 9           | 314 - Turbogenerator Units            | \$75,843,645      | \$75,859,742               | \$/5,916,728     | \$104,505,857    | \$105,175,462   | \$105,762,670    | \$100,270,000   | \$100,029,777            | \$15,407,630                 | \$105,403,020                | \$15 701 407               | \$15 702 162               | \$15 702 339             |
| 10          | 315 - Accessory Electric Equipment    | \$15,296,274      | \$15,296,274               | \$15,296,313     | \$15,303,280     | \$15,405,191    | \$15,407,150     | \$15,407,331    | \$7 207 818              | \$7 201 7/0                  | \$13,407,030                 | \$7 291 749                | \$7 293 386                | 57 297 060               |
| 11          | 316 - Wisc Power Plant Equipment      | \$7,144,140       | \$7,144,555                | 57,102,200       | 57,175,145       | S7,191,170      | \$7,204,405      | \$7,502,547     | \$530 784 220            | \$532 167 328                | \$533 412 206                | \$533 297 243              | \$534 235 529              | \$535 641 044            |
| 12          | Total Steam Production Plant          | \$483,953,068     | \$463,976,637              | \$404,259,392    | \$523,001,043    | \$525,501,456   | \$520,825,244    | 3023,020,001    | \$550,704,220            | 0002,107,020                 | 0000,412,200                 | 0000,201,240               | 0004,200,020               | 400010 I I I O I I       |
|             | Transmission Plant                    |                   |                            |                  |                  |                 |                  |                 |                          |                              |                              |                            | AAA AF7 665                | 007 000 004              |
| 13          | 350 - Land and Land Rights            | \$26,949,420      | \$26,949,582               | \$26,949,582     | \$26,675,314     | \$26,675,314    | \$26,872,238     | \$26,872,315    | \$26,872,315             | \$26,852,657                 | \$26,852,657                 | \$26,852,657               | \$26,857,903               | \$27,032,621             |
| 14          | 352 - Structures and Improvements     | \$6,369,879       | \$6,369,901                | \$6,369,901      | \$6,369,901      | \$6,369,901     | \$6,369,901      | \$6,369,901     | \$6,369,901              | \$6,369,901                  | 35,359,901                   | \$6,369,901                | 20,309,901                 | 5149 190 014             |
| 15          | 353 - Station Equipment               | \$146,405,032     | \$146,412,954              | \$146,421,932    | \$146,458,490    | 5146,745,414    | \$146,914,223    | \$146,918,691   | \$146,962,146            | \$147,597,406                | \$147,705,574                | \$140,202,410              | \$140,294,703              | SD5 017 268              |
| 16          | 354 - Towers and Fixtures             | \$92,385,852      | \$92,386,208               | \$92,386,212     | \$94,722,543     | \$94,742,040    | \$94,762,751     | \$94,968,165    | \$94,961,329             | \$94,905,603                 | \$94,988,010<br>\$50,051,635 | 394,993,033<br>660,006,469 | 394,990,472<br>SE0 116 126 | \$50,017,200             |
| 17          | 355 - Poles and Fixtures              | \$48,050,674      | \$48,027,971               | \$48,062,356     | \$48,384,844     | \$46,402,970    | 549,209,407      | \$49,200,720    | \$49,904,709             | \$100,000,939                | \$100,001,020                | \$109 258 740              | \$109 259 864              | \$109 262 069            |
| 18          | 356 - Overnead Conductors, Devices    | \$105,572,841     | \$107,573,714              | \$107,364,603    | \$109,075,070    | \$109,002,709   | \$109,724,472    | \$105,024,010   | \$105,055,450            | \$105,107,050                | \$11 590                     | \$11 590                   | \$11,590                   | \$11,590                 |
| 19          | 357 - Underground Conduit             | \$10,090          | \$11,090                   | \$106.066        | \$11,050         | \$106.066       | \$106,066        | \$106,066       | \$106.066                | \$106,066                    | \$106.066                    | \$106,066                  | \$106,066                  | \$106,066                |
| 20          | Total Tranmission Plant               | \$425,851,354     | \$427,837,986              | \$427,892,444    | \$431,804,419    | \$432,136,064   | \$433,970,710    | \$434,322,067   | \$434,363,573            | \$435,020,337                | \$435,316,050                | \$435,892,365              | \$436,013,005              | \$436,102,125            |
|             |                                       |                   |                            |                  |                  |                 |                  |                 |                          |                              |                              |                            |                            |                          |
|             | Distribution Plant                    |                   |                            |                  |                  |                 | 00 444 040       | CC 444 C40      | 66 444 649               | 56 506 078                   | CC 505 103                   | SE 507 426                 | 56 507 426                 | \$6 507 426              |
| 22          | 360 - Land and Land Rights            | \$5,784,014       | \$5,784,014                | \$5,784,014      | \$6,411,610      | \$0,411,610     | 50,411,010       | \$0,411,010     | 30,411,010<br>SA 292 660 | \$0,000,970                  | 50,505,195                   | \$0,007,420<br>\$4 278 958 | SA 278 958                 | 54 274 452               |
| 23          | 361 - Structures and Improvements     | 34,257,216        | \$4,257,224<br>648,242,702 | \$4,270,092      | \$4,273,117      | \$4,273,304     | \$4,273,303      | \$4,211,250     | \$4,202,005              | \$54,202,005<br>\$54,149,060 | \$54,204,555                 | \$54,315,810               | \$57 220 969               | \$57 196 253             |
| 24          | 362 - Station Equipment               | \$40,237,700      | \$40,515,752               | \$40,442,525     | \$147 674 353    | \$149 305 013   | \$149 770 135    | \$150 171 242   | \$150 421 357            | \$151,030,354                | \$151,590,141                | \$153,568,222              | \$154,207,236              | \$154,130,634            |
| 20          | 365 - Overbaad Conductors, Devices    | \$145,710,557     | \$127 570 370              | \$128 406 290    | \$129 155 638    | \$130 107 922   | \$131 269 605    | \$132,021,665   | \$134,365,697            | \$135,535,792                | \$137,183,354                | \$134,951,972              | \$135,577,461              | \$138,152,587            |
| 20          | 366 - Underground Conduit             | 54 233 758        | \$4 241 269                | \$4,295,387      | \$4,302,754      | \$4,361,383     | \$4,374,442      | \$4,393,490     | \$4,394,441              | \$4,459,651                  | \$4,504,357                  | \$5,072,247                | \$5,119,660                | \$4,921,900              |
| 28          | 367 - Underground Conductors, Devices | \$7,575,643       | \$7,597,165                | \$7,653,120      | \$7,652,121      | \$7,766,323     | \$7,826,069      | \$7,829,438     | \$7,839,053              | \$7,820,762                  | \$7,858,672                  | \$8,097,417                | \$8,020,362                | \$7,962,163              |
| 29          | 368 - Line Transformers               | \$96,505,564      | \$96,813,281               | \$97,071,966     | \$98,415,054     | \$98,912,627    | \$99,044,494     | \$99,377,073    | \$99,695,313             | \$99,994,687                 | \$100,296,352                | \$100,861,175              | \$100,978,735              | \$101,021,740            |
| 30          | 369 - Services                        | \$37,441,685      | \$37,551,702               | \$37,711,178     | \$38,162,243     | \$38,296,074    | \$38,421,176     | \$38,816,193    | \$38,875,057             | \$38,970,678                 | \$39,730,717                 | \$40,160,678               | \$40,296,800               | \$40,657,586             |
| 31          | 370 - Meters                          | \$22,565,454      | \$22,960,828               | \$22,909,390     | \$22,962,066     | \$23,239,425    | \$23,221,714     | \$23,182,006    | \$23,191,536             | \$23,204,746                 | \$23,213,134                 | \$23,239,292               | \$23,307,304               | \$23,288,486             |
| 32          | 371 - Installs on Customer Premises   | \$17,869,076      | \$17,850,185               | \$17,856,253     | \$18,001,253     | \$17,986,235    | \$18,020,598     | \$18,039,105    | \$17,995,396             | \$17,981,752                 | \$18,100,895                 | \$18,118,550               | \$18,129,457               | \$18,199,577             |
| 33          | 373 - Street Lighting, Signal System  | \$2,932,400       | \$2,938,698                | \$2,945,347      | \$2,939,603      | \$2,951,184     | \$2,966,861      | \$2,955,238     | \$2,962,256              | \$2,971,953                  | \$2,967,604                  | \$2,976,889                | \$2,991,425                | \$2,974,559              |
| 34          | Total Distribution Plant              | \$520,246,762     | \$522,232,925              | \$524,599,166    | \$528,711,036    | \$532,588,527   | \$536,797,787    | \$541,428,231   | \$544,523,394            | \$546,909,083                | \$550,514,475                | \$552,148,635              | \$556,635,792              | \$559,287,361            |
|             | General Plant                         |                   |                            |                  |                  |                 |                  |                 |                          |                              |                              |                            |                            |                          |
| 35          | 389 - Land and Land Rights            | \$1,706,822       | \$1,706,822                | \$1,706,961      | \$1,706,962      | \$1,848,930     | \$1,851,641      | \$1,851,851     | \$1,852,207              | \$1,853,319                  | \$1,853,547                  | \$1,853,550                | \$1,853,550                | \$1,853,550              |
| 36          | 390 - Structures and Improvements     | \$19,910,322      | \$19,910,322               | \$19,910,322     | \$19,910,322     | \$20,033,220    | \$20,033,220     | \$20,033,220    | \$20,033,220             | \$20,034,461                 | \$20,034,461                 | \$20,034,461               | \$20,034,461               | \$20,034,461             |
| 37          | 391 - Office Furniture, Equipment     | \$1,324,991       | \$1,309,170                | \$1,309,170      | \$1,312,821      | \$1,312,821     | \$1,312,821      | \$1,312,821     | \$1,312,821              | \$1,312,821                  | \$1,312,821                  | \$1,312,821                | \$1,312,821                | \$1,312,821              |
| 38          | 392 - Transportation Equipment        | \$9,655           | \$9,655                    | \$9,655          | \$9,655          | \$9,655         | \$9,655          | \$9,655         | \$9,655                  | \$9,655                      | \$9,655                      | \$9,655                    | \$9,655                    | \$9,655                  |
| 39          | 393 - Stores Equipment                | \$157,011         | \$142,851                  | \$142,851        | \$142,851        | \$142,851       | \$148,800        | \$148,769       | \$150,002                | \$150,002                    | \$150,002                    | \$150,002                  | \$150,002                  | \$150,002                |
| 40          | 394 - Tools, Shop, Garage Equipment   | \$2,637,471       | \$2,562,384                | \$2,579,396      | \$2,579,396      | \$2,724,970     | \$2,724,946      | \$2,724,946     | \$2,724,946              | \$2,724,946                  | \$2,724,946                  | \$2,724,946                | \$2,724,946                | 52,724,946               |
| 41          | 395 - Laboratory Equipment            | \$281,772         | \$262,379                  | \$262,379        | \$262,379        | \$262,379       | \$262,379        | \$262,379       | \$262,379                | \$262,379                    | \$262,379                    | \$262,379                  | 2202,3/9<br>e= 024         | 9202,319<br>05 021       |
| 42          | 396 - Power Operated Equipment        | \$5,931           | \$5,931                    | 55,931           | \$5,931          | \$5,931         | \$5,931          | \$5,931         | 25,931                   | 50,931                       | 90,931<br>S6 701 624         | 80, 208 32                 | 56 807 266                 | 56 807 266               |
| 43          | 397 - Communication Equipment         | \$6,353,974       | 56,367,561                 | 55,685,903       | \$0,/55,008      | \$0,775,243     | 30,/83,611       | 30U,481,08      | 30,784,008               | 30,704,008<br>\$077 220      | 30,791,034<br>\$978,603      | \$0,002,400<br>\$978 603   | \$978 603                  | \$978.603                |
| 44          | 390 - Miscellaneous Equipment         | \$975,621         | 59/3,583                   | 39/3,063         | 39/4,320         | 39/4,320        | \$914,320        | \$3/ 107 900    | 53/ 109 /87              | \$34 111 841                 | \$34 123 978                 | \$34 134 756               | \$34 139 614               | \$34,139,614             |
| 45          | i otai General Plant                  | \$33,363,570      | əsə,250,658                | 200,000,101      | əəə,609,644      | as4,090,320     | əə4,107,324      | 204,101,033     | <i>\$34,109,407</i>      | 404,111,041                  | φυ <del>η</del> , 120,970    | 007,107,100                | 90-11001014                | 001,100,014              |
| 46          | TOTAL ELECTRIC PLANT                  | \$1,486,254,314   | \$1,490,333,197            | \$1,493,129,202  | \$1,543,754,230  | \$1,547,760,110 | \$1,555,438,759  | \$1,563,214,467 | \$1,567,613,363          | \$1,572,170,051              | \$1,577,459,979              | \$1,579,681,006            | \$1,585,326,181            | \$1,589,579,473          |

NOTE: Columns may not foot due to rounding

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#### KENTUCKY POWER COMPANY MONTHLY BEGINNING AND ENDING BALANCES OF THE RESERVE FOR DEPRECIATION OF UTILITY PLANT IN SERVICE FOR THE 12 MONTHS ENDING SEPTEMBER 30, 2009

| Line<br>No. | e<br>   | September 30,<br>2008 | October 31,<br>2008 | November 30,<br>2008 | December 31,<br>2008 | January 31,<br>2009 | February 28,<br>2009 | March 31,<br>_2009 | April 30,<br>2009 | May 31,<br>2009 | June 30,<br>2009 | July 31,<br>2009 | August 31,<br>2009 | September 30,<br>2009 |
|-------------|---|-----------------------|---------------------|----------------------|----------------------|---------------------|----------------------|--------------------|-------------------|-----------------|------------------|------------------|--------------------|-----------------------|
|             | Plant In Service  |                       |                     |                      |                      |                     |                      |                    |                   |                 |                  |                  |                    |                       |
| 1           | Steam Production  | \$216,446,165         | \$217,905,405       | \$218,697,477        | \$218,453,447        | \$219,415,521       | \$220,644,609        | \$221,038,304      | \$219,862,544     | \$221,410,678   | \$222,564,962    | \$224.021.193    | \$224,463,084      | \$225,477,828         |
| 2           | Transmission  | 133,542,931           | 134,129,649         | 134,721,534          | 135,029,658          | 135,378,353         | 135,973,439          | 136,573,316        | 137,168,858       | 137,736,492     | 138,312,033      | 138,893,837      | 139,755,332        | 140,217,942           |
| 3           | Distribution  | 132,905,542           | 133,870,578         | 134,478,490          | 134,821,352          | 135,757,208         | 136,233,751          | 136,437,043        | 136,752,351       | 136,716,452     | 136,817,873      | 136,740,135      | 137,599,255        | 138,402,410           |
| 4           | General Plant<br>Asset Retirement Obligation<br>Removal Accretion                         | 6,534,645             | 6,457,175           | 6,522,471            | 6,580,548            | 6,639,788           | 6,706,586            | 6,773,726          | 6,835,297         | 6,901,871       | 6,968,954        | 7,036,097        | 7,103,104          | 7,168,352             |
| 5           | Steam Production  | (1,098,719)           | (1,103,891)         | (1,107,433)          | (1,110,971)          | (1,147,457)         | (1,180,843)          | (1,215,662)        | (1,250,631)       | (1,285,774)     | (1,325,266)      | (1,364,936)      | (1,404,755)        | (1,444,704)           |
|             | Less:   |                       |                     |                      |                      |                     |                      |                    |                   |                 |                  |                  |                    |                       |
| 6           | Retirement Work In Progress   | 5,037,886             | 7,601,808           | 7,999,464            | 7,935,558            | 8,128,636           | 8,625,235            | 8,545,523          | 6,663,476         | 6,193,147       | 4,940,731        | 4,341,757        | 2,904,600          | 3,166,996             |
|             | Total Accum. Provision for  |                       |                     |                      |                      |                     | <u> </u>             |                    |                   |                 |                  |                  |                    |                       |
| 7           | Depreciation  | 483,292,678           | 483,657,108         | 485,313,075          | 485,838,476          | 487,914,777         | 489,752,307          | 491,061,204        | 492,704,943       | 495,286,572     | 498,397,825      | 500,984,569      | 504,611,420        | 506,654,832           |
|             | Accumulated Provision for<br>Amortization of Electric Plant In<br>Service                 |                       |                     |                      |                      |                     |                      |                    |                   |                 |                  |                  |                    |                       |
| 8           | Franchises  | 48,880                | 48,924              | 48,969               | 49,013               | 49,057              | 49,102               | 49,146             | 49,190            | 49,234          | 49,278           | 49.323           | 49.367             | 49,411                |
| 9           | Capitalized Software  | 15,664,404            | 15,960,276          | 15,752,664           | 16,189,711           | 13,839,859          | 14,147,784           | 14,458,941         | 14,771,733        | 15,086,140      | 15,402,693       | 15,721,443       | 16,042,106         | 16,364,340            |
| 10          | SCR Catalyst  | 2,937,642             | 2,983,672           | 3,029,702            | 3,075,732            | 3,121,762           | 3,167,792            | 3,213,822          | 3,259,852         | 3,305,882       | 3,351,912        | 3,397,942        | 3,443,972          | 3,490,002             |
| 11          | Other .   | 959,069               | 959,069             | 959,069              | 959,069              | 959,069             | 959,069              | 959,069            | 959,069           | 959,069         | 959,069          | 959,069          | 959,069            | 959,069               |
| 12          | Total Electric Utilty Plant   | 19,609,995            | 19,951,941          | 19,790,404           | 20,273,525           | 17,969,747          | 18,323,747           | 18,680,978         | 19,039,844        | 19,400,325      | 19,762,952       | 20,127,777       | 20,494,514         | 20,862,822            |
| 13          | Leased Property   | 2,694,555             | 2,756,137           | 2,711,909            | 2,152,342            | 2,159,412           | 2,052,734            | 1,994,691          | 2,011,139         | 1,985,620       | 1,957,716        | 1,831,994        | 1,868,455          | 1,921,439             |
| 14          | Total Accum. Provision for<br>Amortization of Electric Utility<br>Plant & Leased Property | 22,304,550            | 22,708,078          | 22,502,313           | 22,425,867           | 20,129,160          | 20,376,481           | 20,675,669         | 21,050,983        | 21,385,945      | 21,720,668       | 21,959,771       | 22,362,969         | 22,784,261            |
|             | Total Accum. Provision for Depr.,<br>Depl., and Amort. Of Electric Utility                |                       |                     |                      |                      |                     |                      |                    |                   |                 |                  |                  |                    | <u></u>               |
| 15          | Plant - Net   | \$505,597,228         | \$506,365,186       | \$507,815,388        | \$508,264,343        | \$508,043,937       | \$510,128,788        | \$511,736,873      | \$513,755,926     | \$516,672,517   | \$520,118,493    | \$522,944,340    | \$526,974,389      | \$529,439,093         |

#### KENTUCKY POWER COMPANY MONTHLY BEGINNING AND ENDING BALANCES OF CONSTRUCTION WORK IN PROGRESS FOR THE TEST YEAR ENDED SEPTEMBER 30, 2009

|             |                      | September    | October      | November     | December     | January      | February     | March        | April        | May          | June         | July         | August       | September    |
|-------------|----------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| Line<br>No. |                      | 2008         | 2008         | 2008         | 2008         | 2009         | 2009         | 2009         | 2009         | 2009         | 2009         | 2009         | 2009         | 2009         |
| 1           | Regular Construction | \$67,591,211 | \$73,139,563 | \$81,282,155 | \$46,649,955 | \$43,839,911 | \$41,396,497 | \$35,579,639 | \$35,893,250 | \$34,377,904 | \$32,705,710 | \$32,094,530 | \$28,883,190 | \$28,208,039 |
| 2           | Total                | \$67,591,211 | \$73,139,563 | \$81,282,155 | \$46,649,955 | \$43,839,911 | \$41,396,497 | \$35,579,639 | \$35,893,250 | \$34,377,904 | \$32,705,710 | \$32,094,530 | \$28,883,190 | \$28,208,039 |

#### KENTUCKY POWER COMPANY MONTHLY BEGINNING AND ENDING BALANCES OF CERTAIN OTHER ACCOUNTS FOR THE TEST YEAR ENDED SEPTEMBER 30, 2009

| 1 5 |                                  | September             | October               | November              | December              | January               | February              | March                 | April                 | May                    | June                    | July                   | August                | September               |
|-----|----------------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------------|-------------------------|------------------------|-----------------------|-------------------------|
| No. |                                  | 2008                  | 2008                  | 2008                  | 2008                  | 2009                  | 2009                  | 2009                  | 2009                  | 2009                   | 2009                    | 2009                   | 2009                  | 2009                    |
|     | Prepayments                      |                       |                       |                       |                       |                       |                       |                       |                       |                        |                         |                        |                       |                         |
| 1   | Insurance                        | \$815,719             | \$665,335             | \$513,422             | \$443,712             | \$855,072             | \$740,054             | \$773,464             | \$651,215             | \$528,966              | \$406,717               | \$1,125,903            | \$1,027,089           | \$887,291               |
| 2   | Employee Benefits - Pension      | \$0                   | (\$82,512)            | (\$165,025)           | \$0                   | (\$185,750)           | (\$371,500)           | \$0                   | (\$184,618)           | (\$369,236)            | \$0                     | (\$184,618)            | (\$369,236)           | (\$0)                   |
| 3   | Taxes                            | 502,774               | 446,910               | 391,047               | 335,183               | 279,319               | 223,455               | 167,591               | 111,728               | 55,864                 | 749,755                 | 687,275                | 627,796               | 562,316                 |
| 4   | Interest                         | 5,865                 | 4,888                 | 3,910                 | 2,933                 | 1,955                 | 978                   | 0                     | 0                     | 0                      | 0                       | 0                      | 0                     | 0                       |
| 5   | Carry Costs - Factored A/R       | 56,880                | 93,006                | 46,560                | 73,044                | 38,459                | 35,153                | 31,783                | 31,039                | 20,865                 | 35,144                  | 29,914                 | 17,149                | 15,887                  |
| 6   | Sales / Use Taxes<br>FAS 112 -   | 0                     | 0                     | 0                     | 0                     | 506,634               | 498,554               | 474,854               | 391,162               | 391,388                | 359,163                 | 425,323                | 428,988               | 398,944                 |
| 7   | Postemployment Benefits          | 415,842               | 415,842               | 415,842               | 415,842               | 415,842               | 415,842               | 122,026               | 122,026               | 122,026                | 122,026                 | 122,026                | 122,026               | 122,026                 |
| 8   | Total Prepayments                | \$1,797,080           | \$1,543,470           | \$1,205,756           | \$1,270,714           | \$1,911,532           | \$1,542,535           | \$1,569,719           | \$1,122,551           | \$749,873              | \$1,672,804             | \$2,205,822            | \$1,853,811           | \$1,986,463             |
| 9   | Retirement Work In Progress      | \$5,037,886<br>====== | \$7,601,808<br>====== | \$7,999,464<br>====== | \$7,935,558<br>====== | \$8,128,636<br>====== | \$8,625,235<br>====== | \$8,545,523<br>====== | \$6,663,476<br>====== | \$6,193,147<br>======= | \$4,940,731<br>======== | \$4,341,757<br>======= | \$2,904,600<br>====== | \$3,166,996<br>======== |
|     | Material and Supplies            |                       |                       |                       |                       |                       |                       |                       |                       |                        |                         |                        |                       |                         |
| 10  | Fuel Stock - Coal                | \$17,526,510          | \$22,597,254          | \$29,257,552          | \$28,228,487          | \$21,568,890          | \$22,326,171          | \$26,212,732          | \$23,758,225          | \$28,471,983           | \$31,502,280            | \$36,086,961           | \$38,350,208          | \$42,095,142            |
| 11  | Fuel Stock - Oil                 | 1,142,501             | 1,144,082             | 1,022,498             | 841,709               | 865,072               | 693,306               | 620,918               | 641,398               | 471,037                | 629,045                 | 652,619                | 596,130               | 619,125                 |
| 12  | Undistributed Expenses           | 136,429               | 189,625               | 259,172               | 370,203               | 325,266               | 320,436               | 319,907               | 296,525               | 328,653                | 371,748                 | 490,671                | 483,299               | 620,537                 |
| 13  | Total Fuel                       | 18,805,441            | 23,930,960            | 30,539,222            | 29,440,399            | 22,759,228            | 23,339,913            | 27,153,557            | 24,696,147            | 29,271,674             | 32,503,073              | 37,230,251             | 39,429,637            | 43,334,804              |
| 14  | Other - Materials and Supplies   | 9,297,893             | 9,499,415             | 9,320,130             | 8,814,925             | 9,073,468             | 9,364,743             | 9,298,819             | 9,803,014             | 10,147,466             | 10,275,708              | 10,617,007             | 10,622,572            | 10,617,325              |
| 15  | CO2 Emission Allowance Inventory | 12,100                | 10,408                | 9,264                 | 0                     | 0                     | 0                     | 0                     | 0                     | 0                      | 0                       | 0                      | 0                     | 0                       |
| 16  | SO2 Emission Allowance Inventory | 8,906,583             | 8,764,980             | 8,609,367             | 8,514,372             | 8,380,282             | 8,279,354             | 8,162,697             | 8,040,688             | 7,951,468              | 7,844,970               | 7,768,689              | 7,656,241             | 7,581,596               |
| 17  | NOx Compliance Inventory         | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                     | 0                      | 105,984                 | 90,338                 | 71,504                | 55,010                  |
| 18  | Total Materials & Supplies       | \$37,022,016          | \$42,205,764          | \$48,477,982          | \$46,769,696          | \$40,212,978          | \$40,984,010          | \$44,615,072          | \$42,539,849          | \$47,370,608           | \$50,729,735            | \$55,706,284           | \$57,779,954          | \$61,588,735            |
|     |                                  |                       |                       |                       |                       |                       |                       |                       |                       |                        |                         |                        |                       |                         |

#### KENTUCKY POWER COMPANY Monthly Statements of Electric Operating Income For The 12 Months Ended September 30, 2009

| line                       |   | October   | November   | December   | January  | February   | March  | April  | Мау  | June   | July  | August  | September  | 12 Months<br>Ended   |
|----------------------------|---|---|--|--|--|--|--|--|--|--|---|---|--|--|
| No.                        |   | 2008  | 2008   | 2008   | 2009   | 2009   | 2009   | 2009   | 2009   | 2009   | 2009  | 2009  | 2009   | 09/30/2009   |
| 1                          | Utility Operating Income - Electric   |   |  |  |  |  |  |  |  |  |   |   |  |  |
| 2<br>3<br>4                | Operating Revenue - Sales To Non Affiliates<br>Operating Revenue - Sales To Affiliates<br>Provision for Rate Refund   | \$53,213,940<br>7,105,688<br>0                            | \$55,556,616<br>1,687,824<br>0                               | \$61,135,449<br>2,935,222<br>(12,698,791)                    | \$64,528,039<br>5,395,647<br>0                               | \$52,699,681<br>4,229,363<br>0                                 | \$51,363,461<br>7,324,036<br>0                           | \$42,045,439<br>8,768,653<br>0                             | \$44,093,465<br>6,361,347<br>0                         | \$52,922,915<br>5,290,152<br>0                             | \$52,541,412<br>2,460,872<br>0                          | \$52,411,760<br>5,872,999<br>0                      | \$38,939,609<br>3,736,578<br>0                                 | \$621,451,786<br>61,168,381<br>(12,698,791)                          |
| 5                          | Total Operating Revenues  | 60,319,628  | 57,244,440   | 51,371,880   | 69,923,686   | 56,929,044   | 58,687,497   | 50,814,092   | 50,454,812   | 58,213,067   | 55,002,284  | 58,284,759  | 42,676,187   | 669,921,376  |
| 6<br>7<br>8                | <u>Operating Expenses - Electric</u><br>Operating Expense<br>Maintenance Expense  | 43,353,880<br>3,868,151                                   | 44,126,956<br>3,425,988                                      | 48,791,996<br>3,714,700                                      | 50,239,335<br>4,909,174                                      | 38,509,380<br>13,169,479                                       | 40,079,720<br>3,266,575                                  | 39,914,835<br>(1,924,629)                                  | 36,180,446<br>4,011,875                                | 42,929,677<br>3,494,869                                    | 39,528,312<br>2,990,766                                 | 44,046,277<br>4,921,526                             | 34,494,382<br>3,648,784  | \$502,195,196<br>49,497,258  |
| 9                          | Total Operation & Maintenance   | 47,222,031  | 47,552,944   | 52,506,696   | 55,148,509   | 51,678,859   | 43,346,295   | 37,990,206   | 40,192,321   | 46,424,546   | 42,519,078  | 48,967,803  | 38,143,166   | 551,692,454  |
| 10                         | Depreciation and Amortization   | 4,055,231   | 4,066,948  | 4,049,818  | 4,218,918  | 4,243,261  | 4,344,568  | 4,290,323  | 4,304,747  | 4,376,180  | 4,336,055   | 4,343,985   | 4,420,101  | 51,050,135   |
| 11                         | Taxes & Provisions for Deferred Federal<br>Income Taxes - Net   |   |  |  |  |  |  |  |  |  |   |   |  |  |
| 12<br>13<br>14<br>15<br>16 | Taxes Other Than Income Taxes<br>State Income Taxes<br>Total Current Federal Income Tax<br>Total Deferred Federal Income Tax<br>Total Deferred Investment Tax Credits | 867,886<br>(53,534)<br>(913,702)<br>2,021,949<br>(73,914) | 666,159<br>(373,480)<br>(3,178,242)<br>4,520,998<br>(73,914) | 1,091,657<br>443,640<br>2,109,247<br>(7,391,527)<br>(62,132) | 398,295<br>(692,210)<br>(4,352,855)<br>7,586,735<br>(68,496) | 1,004,761<br>(302,487)<br>(1,505,331)<br>1,109,764<br>(68,496) | 929,374<br>422,800<br>(699,723)<br>2,013,362<br>(68,496) | 1,621,382<br>(4,703)<br>(478,636)<br>1,740,025<br>(68,496) | 989,147<br>133,233<br>(104,433)<br>778,319<br>(68,496) | 1,012,385<br>379,978<br>3,285,080<br>(917,826)<br>(68,496) | 961,469<br>292,668<br>1,176,795<br>(21,712)<br>(68,496) | 905,098<br>152,850<br>186,968<br>79,644<br>(68,496) | 948,247<br>(1,442,257)<br>(9,558,141)<br>9,846,033<br>(68,496) | 11,395,860<br>(1,043,502)<br>(14,032,973)<br>21,365,764<br>(826,424) |
| 17                         | Total Taxes & Provisions For Deferred Income<br>Taxes   | 1,848,685   | 1,561,521  | (3,809,115)  | 2,871,469  | 238,211  | 2,597,317  | 2,809,572  | 1,727,770  | 3,691,121  | 2,340,724   | 1,256,064   | (274,614)  | 16,858,725   |
| 18                         | Total Electric Operating Expenses   | 53,125,947  | 53,181,413   | 52,747,399   | 62,238,896   | 56,160,331   | 50,288,180   | 45,090,101   | 46,224,838   | 54,491,847   | 49,195,857  | 54,567,852  | 42,288,653   | 619,601,314  |
| 19                         | Net Electric Operating Income   | \$7,193,681   | \$4,063,027  | (\$1,375,519)  | \$7,684,790  | \$768,713  | \$8,399,317  | \$5,723,991  | \$4,229,974  | \$3,721,220  | \$5,806,427   | \$3,716,907   | \$387,534  | \$50,320,062   |
|                            |   |   |  | and the same same with the table table to a                  |  | the set of the set of the set of                               |  |  |  |  |   |   |  |  |

### KENTUCKY POWER COMPANY TOTAL OWNED ELECTRIC PLANT 12 MONTHS ENDED SEPTEMBER 30, 2009

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|      |                             |                 |               |   |                 |  | Ir                | rcrease         |
|------|-----------------------------|-----------------|---------------|---|-----------------|--|-------------------|-----------------|
|      |                             |                 |               |   |                 |  | 09/30/2009        | over 09/30/2008 |
| Line | Owned Electric Plant        | Balance         |               |   |                 | Balance  |                   |                 |
| No.  | In Service                  | 09-30-2008      | Additions     | Retirements   | Transfers       | 09-30-2009   | Amount            | Per Cent        |
| 1    | Asset Retirement Obligation | \$468,403       | \$2,869,019   | \$0   | \$0             | \$3,337,422  | \$2,869,019       | 612.5%          |
| 2    | Intangible Plant            | \$22,371,136    | \$1,688,807   | \$2,988,036   | \$0             | \$21,071,907   | (\$1,299,229)     | -5.8%           |
| 3    | Steam Production Plant      | 483,953,088     | 57,032,021    | 5,344,065   | 0               | 535,641,044  | 51,687,956        | 10.7%           |
| 4    | Transmission Plant          | 425,851,354     | 11,047,832    | 887,122   | 90,061          | 436,102,125  | 10,250,771        | 2.4%            |
| 5    | Distribution Plant          | 520,246,762     | 50,012,159    | 10,881,499  | (90,061)        | 559,287,361  | 39,040,599        | 7.5%            |
| 6    | General Plant               | 33,363,570      | 919,050       | 143,006   | 0               | 34,139,614   | 776,044           | 2.3%            |
|      | Total Owned                 | ************    |               | nen men der ver ver ver den ben der ver ver ver ver ver den der ver der ver ver ver den |                 |  | ***************** |                 |
| 7    | Electric Plant In Service   | 1,486,254,313   | 123,568,888   | 20,243,728  | 0               | 1,589,579,473  | 103,325,160       | 7.0%            |
|      | Other Electric Plant        |                 |               |   |                 |  |                   |                 |
|      | Electric Plant              |                 |               |   |                 |  |                   |                 |
| 8    | Held For Future Use         | 6,808,947       | 0             | 0   | 0               | 6,808,947  | 0                 | 0.0%            |
| 9    | CWIP                        | 67,591,211      | 81,316,696    | 0   | (120,699,868)   | 28,208,039   | (39,383,172)      | -58.3%          |
|      | Total                       |                 | *********     | 92.74 m m m w w w w w w w w w w w w w w w w   |                 | 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 -<br>1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - |                   |                 |
| 10   | Owned Electric Plant        | \$1,560,654,471 | \$204,885,584 | \$20,243,728  | (\$120,699,868) | \$1,624,596,459  | \$63,941,988      | 4.1%            |
|      |                             |                 |               |   |                 |  |                   |                 |