SULLIVAN, MOUNTJOY, STAINBACK & MILLER PSC

ATTORNEYS AT LAW

Ronald M. Sullivan
Jesse T. Mountjoy
Frank Stainback
James M. Miller
Michael A. Fiorella
William R. Dexter
Allen W. Holbrook
R. Michael Sullivan
P. Marcum Willis
Bryan R. Reynolds
Tyson A. Kamuf
Mark W. Starnes
Julia B. Hawes

August 29, 2006

Via Federal Express

Ms. Elizabeth O'Donnell
Executive Director
Public Service Commission
211 Sower Boulevard, P.O. Box 615
Frankfort, Kentucky 40602-0615

Re: In the Matter of: Consideration of the Requirements of the Federal Energy Policy Act of 2005 Regarding Time-Based Metering, Demand Response, and Interconnection Service, Administrative Case No. 2006-00045

Dear Ms. O'Donnell:

Enclosed are an original and ten copies of the brief of Big Rivers Electric Corporation, Kenergy Corp., Jackson Purchase Energy Corporation, and Meade County Rural Electric Cooperative Corporation in the above-styled matter. I certify that a copy of this filing has been served this day on the persons shown on the attached service list.

Sincerely yours,

James M. Miller

JMM/ej
Enclosures

cc: Service List
Frank N. King, Jr., Esq.

Telephone (270) 926-4000
Telecopier (270) 683-6694

100 St. Ann Building
PO Box 727
Owensboro, Kentucky
42302-0727

SERVICE LIST
PSC CASE NO. 2006-00045

Allen Anderson
South Kentucky R.E.C.C.
P.O. Box 910
925-929 N. Main Street
Somerset, KY 42502-0910

Mark A. Bailey
Kenergy Corp.
3111 Fairview Drive
P.O. Box 1389
Owensboro, KY 42302

Michael S. Beer
VP - Rates & Regulatory
Kentucky Utilities Company
c/o Louisville Gas & Electric Co.
P.O. Box 32010
Louisville, KY 40232-2010

Hon. Jason R. Bentley
McBrayer, McGinnis, Leslie
& Kirkland, PLLC
305 Ann Street, Suite 308
Frankfort, KY 40601

Kent Blake
Director-State Regulation and Rates
Louisville Gas and Electric Company
220 W. Main Street
P.O. Box 32010
Louisville, KY 40232-2010

Dudley Bottom, Jr.
Shelby Energy Cooperative, Inc.
620 Old Finchville Road
Shelbyville, KY 40065

Daniel W. Brewer
Blue Grass Energy Cooperative Corp.
P.O. Box 990
1201 Lexington Road
Nicholasville, KY 40340-0990

Jackie B. Browning
Farmers R.E.C.C.
504 South Broadway
P.O. Box 1298
Glasgow, KY 42141-1298

Sharon K. Carson
Finance & Accounting Manager
Jackson Energy Cooperative
P.O. Box 307
U.S. Highway 421S
McKee, KY 40447

Hon. Elizabeth L. Cocanougher
Senior Corporate Attorney
E.ON U.S. LLC
220 West Main Street
Louisville, Kentucky 40202

Hon. Lawrence W. Cook
Hon. Elizabeth Blackford
Assistant Attorneys General
Office of the Attorney General
Utility & Rate Intervention Division
1024 Capital Center Drive, Suite 200
Frankfort, KY 40601-8204

Michael H. Core
President/CEO
Big Rivers Electric Corporation
201 Third Street, P.O. Box 24
Henderson, Kentucky 42419-0024

Rocco O. D'Ascenzo
Duke Energy Shared Services, Inc.
139 East Fourth Street
Cincinnati, Ohio 45201

Scott H. DeBroff, Esq.
Smigel, Anderson & Sacks
River Chase Office Center
4431 North Front Street
Harrisburg, PA 17110

Paul G. Embs
Clark Energy Cooperative, Inc.
P.O. Box 748
2640 Ironworks Road
Winchester, KY 40392-0748

Carol H. Fraley
President and CEO
Grayson R.E.C.C.
109 Bagby Park
Grayson, KY 41143

James B. Gainer
Legal Division
The Union Light, Heat and Power Company
139 East Fourth Street
Cincinnati, OH 45202

Ted Hampton
Cumberland Valley Electric, Inc.
Highway 25E, P.O. Box 440
Gray, KY 40734

Larry Hicks
Salt River Electric Cooperative Corp.
111 West Brashear Avenue
P.O. Box 609
Bardstown, KY 40004

Kerry K. Howard
Licking Valley R.E.C.C.
P.O. Box 605
271 Main Street
West Liberty, KY 41472

James L. Jacobus
Inter-County Energy Cooperative
Corporation
1009 Hustonville Road
P.O. Box 87
Danville, KY 40423-0087

Hon. Tyson Kamuf
Sullivan, Mountjoy, Stainback
& Miller, P.S.C.
100 St. Ann Street, P.O. Box 727
Owensboro, Kentucky 42302-0727

Hon. Lisa Kilkelly
Legal Aid Society
425 West Muhammad Ali Blvd.
Louisville, Kentucky 40202

Michael L. Kurtz, Esq.
Boehm, Kurtz & Lowry
36 East Seventh Street
Suite 1510
Cincinnati, Ohio 45202

Robert M. Marshall
Owen Electric Cooperative, Inc.
8205 Highway 127 North
P.O. Box 400
Owenton, KY 40359

Burns E. Mercer
Meade County R.E.C.C.
P.O. Box 489
Brandenburg, KY 40108-0489

Hon. James M. Miller
Sullivan, Mountjoy, Stainback
& Miller, P.S.C.
100 St. Ann Street, P.O. Box 727
Owensboro, Kentucky 42302-0727

Michael L. Miller
President & CEO
Nolin R.E.C.C.
411 Ring Road
Elizabethtown, KY 42701-8701

Timothy C. Mosher
American Electric Power
101A Enterprise Drive
P.O. Box 5190
Frankfort, KY 40602

Barry L. Myers
Manager
Taylor County R.E.C.C.
100 West Main Street
P.O. Box 100
Campbellsville, KY 42719

G. Kelly Nuckols
Jackson Purchase Energy Corporation
2900 Irvin Cobb Drive
P.O. Box 4030
Paducah, KY 42002-4030

Anthony P. Overbey
Fleming-Mason Energy Corporation
P.O. Box 328
Flemingsburg, KY 41041

Hon. Mark R. Overstreet
Attorney at Law
Stites & Harbison
421 West Main Street
P.O. Box 634
Frankfort, KY 40602-0634

Roy M. Palk
East Kentucky Power Cooperative, Inc.
4775 Lexington Road
P.O. Box 707
Winchester, KY 40392-0707

Anne Marie Regan
Office of Kentucky Legal Service
Programs, Inc.
1139 East Broadway
Louisville, KY 40204

Hon. Kendrick R. Riggs
Stoll Keenon Ogden PLLC
1700 PNC Plaza
500 West Jefferson Street
Louisville, Kentucky 40202

Bobby D. Sexton
President/General Manager
Big Sandy R.E.C.C.
504 11th Street
Paintsville, KY 41240-1422

David A. Spainhoward
VP, External Relations & Interim
Chief Production Officer
Big Rivers Electric Corporation
201 Third Street, P.O. Box 24
Henderson, Kentucky 42419-0024

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

CONSIDERATION OF THE REQUIREMENTS OF THE FEDERAL ENERGY POLICY ACT OF 2005 REGARDING TIME-BASED METERING, DEMAND RESPONSE AND INTERCONNECTION SERVICE	)))))	CASE NO. 2006-00045

BRIEF OF BIG RIVERS ELECTRIC CORPORATION, JACKSON PURCHASE ENERGY CORPORATION, KENERGY CORP., AND MEADE COUNTY RURAL ELECTRIC COOPERATIVE CORPORATION

I.

Introduction

Big Rivers Electric Corporation ("Big Rivers"), Jackson Purchase Energy Corporation ("JPEC"), Kenergy Corp. ("Kenergy"), and Meade County Rural Electric Cooperative Corporation ("Meade County RECC") (together, JPEC, Kenergy, and Meade County RECC are referred to herein as the "Member Cooperatives") jointly file this brief. Big Rivers and the Member Cooperatives were made parties to this administrative proceeding in the February 24, 2006, order of the Public Service Commission ("Commission") initiating this case (the "Order"). Order at page 4.

II.

Nature of proceeding as it relates to Big Rivers and the Member Cooperatives

The Commission initiated this proceeding to comply with the mandate of the federal Energy Policy Act of 2005 ("EPAct") amendments to the Public Utilities Regulatory Policy Act of 1978 ("PURPA") that the Commission, with respect to *each* utility over which it has jurisdiction:

1. Consider the smart metering and interconnection standards established by Sections 1252 and 1254, respectively, of the EPAct, and

2. Make a determination concerning whether or not it is appropriate to implement those standards to carry out the purposes of Title I of PURPA.

16 U.S.C. § 2621(a). The stated purposes of PURPA are to encourage (i) conservation of energy supplied by electric utilities; (ii) optimization of the efficiency of use of facilities and resources by electric utilities; and (iii) equitable rates to electric consumers. *Id.* § 2611. Although the Commission is required to consider the standards, the Commission is not required to adopt them, regardless of whether the Commission determines that the standards either are or are not appropriate to carry out the PURPA purposes. *See id.* §§ 2621 (a), (c); *id.* § 2627(b).

This brief will show that it is not appropriate to implement the PURPA smart metering and interconnection standards as to any of Big Rivers and the Member Cooperatives. First, neither Big Rivers nor Meade County RECC is a covered utility under PURPA. Second, imposition of the smart metering and interconnection standards on Kenergy and JPEC, whether individually or through statewide standards, is not appropriate to carry out the purposes of PURPA.

III.

Big Rivers and Meade County RECC are not covered utilities under PURPA

Big Rivers and Meade County RECC are not covered utilities to which the requirements of PURPA apply. Big Rivers is a rural electric generation and transmission cooperative ("G&T"). It owns generating assets, and purchases, transmits and sells electricity at wholesale. Big Rivers' principal purpose is to provide the wholesale electricity requirements of the Member Cooperatives. It has no retail sales. *See Big Rivers Electric Corporation's Response to the*

Initial Data Requests Contained in Appendix C of the Public Service Commission's Order dated February 24, 2006, Introduction at 1; *Direct Testimony of Travis D. Housley, P.E., and Russ Pogue on behalf of Big Rivers Electric Corporation, Jackson Purchase Energy Corporation, Kenergy Corp., and Meade County Rural Electric Cooperative Corporation, Direct Testimony of Travis D. Housley, P.E.*, ("*Housley Testimony*") at 3. PUPRA only applies to utilities that have retail sales of electricity. 16 U.S.C. § 2612.

PURPA "covered utilities" must have retail sales exceeding 500 million kilowatt-hours in a calendar year. *See* PURPA § 102, 16 U.S.C. § 2612. Meade County RECC's retail sales do not meet this PURPA coverage threshold. *See Housley Testimony* at 3. And neither Big Rivers nor Meade County RECC is listed as a "covered utility" in the U. S. Department of Energy ("DOE") list of covered utilities published in August of 2006. *See List of Covered Utilities* at DOE's web site: http://www.oe.energy.gov/purpa.htm.

The Commission should therefore make a finding that Big Rivers and Meade County RECC, which are parties to this proceeding, are not covered utilities under PURPA or under the EPAct, and exempt them from any Commission orders requiring compliance with or implementing the EPAct standards. The Commission made this finding in its earlier proceeding reviewing the original PURPA electric utility standards. *See In the Matter of: The Filing of Plans by Electric Utilities Concerning the Feasibility of Implementing Certain Rate Design Standards and* Methods, P.S.C. Administrative Case No. 203, Order dated February 8, 1980.

JPEC requests that no later than October 1, 2006, the Commission notify the DOE pursuant to 16 U.S.C. § 2612(c) that the list of PURPA "covered utilities" published by DOE in August of 2006 erroneously lists JPEC as a PURPA covered utility that is not subject to Commission jurisdiction. JPEC is, of course, subject to the Commission's jurisdiction. This fact

is relevant with respect to the procedure employed by JPEC to achieve compliance with the EPAct's requirements. As the Commission is undoubtedly aware, that list contains other errors regarding the Kentucky listings.

IV.

The Commission should determine that it is not appropriate to implement the PURPA smart metering standard.

The goal of the PURPA time-based metering and communications standard, typically referred to as the "smart metering" standard, is to cause a utility to respond to individual consumer demand for a rate that allows the consumer to manage its energy use and cost by matching its retail purchases of electricity with the periods when the costs of generating and purchasing electricity at the wholesale level are lowest. 16 U.S.C. § 2621(14)(A). The smart metering standard contemplates that each electric utility will provide each customer requesting a time-based rate with a time-based meter capable of enabling the utility and customer to offer and receive such rates, respectively. 16 U.S.C. § 2621(14)(C).

The smart metering standard is not appropriate for Kenergy and JPEC for a variety of reasons. First, there is insufficient demand for time-based rates from Kenergy or JPEC customers to justify the cost of mandatory time-based rates and smart meters. Cost-effectiveness is one factor that PURPA, as amended by the EPAct, suggests is important in crafting time-based rates:

> [A] time-of-day rate charged by an electric utility for providing electric service to each class of electric consumers shall be determined to be cost-effective with respect to each such class if the long-run benefits of such rate to the electric utility and its electric consumers in the class concerned are likely to exceed the metering and communications costs and other costs associated with the use of such rates.

Id. § 2625(b).

Big Rivers and its Member Cooperatives have little information regarding the cost and benefits of smart meters; however, they have determined, through past experience and customer surveys, that there is virtually no demand on the Big Rivers system for time-based rate schedules. *See Big Rivers Electric Corporation's Response to the Initial Data Requests Contained in Appendix C of the Public Service Commission's Order dated February 24, 2006, Introduction* at 2. Big Rivers, JPEC, and Kenergy previously offered time-differentiated rates to some of their customers. But these tariffs were later withdrawn due primarily to lack of customer interest. *See Direct Testimony of Travis D. Housley, P.E., and Russ Pogue on behalf of Big Rivers Electric Corporation, Jackson Purchase Energy Corporation, Kenergy Corp., and Meade County Rural Electric Cooperative Corporation, Testimony of Russ Pogue* ("Pogue Testimony") at 3.

Meade County RECC, which is not a PURPA "covered utility," currently offers a time-based rate, but only has one customer participating in that tariff. *See Response of Big Rivers Electric Corporation, Jackson Purchase Energy Corporation, Kenergy Corp., and Meade County Rural Electric Cooperative Corporation to the Commission Staff's Second Information Request, Response to Item* 2(b). That one customer is the only retail tariff customer on Big Rivers' system that has ever taken advantage of time-based rates. *See Pogue Testimony* at 3.

One explanation for the limited interest in time-based rates in Kentucky is the fact that, as the Commission is well aware, costs for electricity in Kentucky are among the lowest in the country. *See id.* at 3. In states that have recently pursued a course of deregulation, significant increases in electricity rates are expected this year. *See id.* For instance, in the mid-Atlantic states of Delaware and Maryland and including the Washington, D.C. area, electric rates are projected to increase from 30 percent to over 100 percent for certain rate classes. *See id.* In

these regions of the country there is obviously a keen interest in any measures that help to control energy costs, including time-of-use rates and smart metering. *See id.* In a low cost state such as Kentucky, however, there is not much customer interest in these options. *See id.* at 3-4. As such, a statewide standard for time-based rates is unnecessary.

Moreover, given this lack of customer interest, it is imperative that the Commission only adopt a smart metering standard if the benefits will clearly outweigh the costs. One of the primary concerns of Big Rivers and its Member Cooperatives is that if a smart metering standard is adopted, they or their customers will incur increased costs without realizing any associated benefits. *See Big Rivers Electric Corporation's Response to the Initial Data Requests Contained in Appendix C of the Public Service Commission's Order dated February 24, 2006, Introduction* at 3. As non-profit, member-owned cooperatives with no shareholders available to bear the costs not passed on to their customers, Big Rivers and its Member Cooperatives must have some assurance of being able to recover the costs associated with new and experimental programs. *See id.* Moreover, the Commission must ensure that only the retail customers or classes of customers who would benefit from a smart metering standard bear the costs if such a program is adopted. More particularly, participating customers should bear all costs of implementation of a time-based or smart metering program, unless benefits to non-participating customers can actually be identified. Non-participating customers should not be required to subsidize, directly or indirectly, participation by others in such a program. A cost recovery mechanism similar to that used for demand-side management programs may be appropriate. *See KRS 278.285.*

As noted above, Big Rivers and its Members have limited information readily available on the existing technologies and the programs that are feasible for current implementation in Kentucky. *See id.* Clearly, the implementation costs associated with implementing a smart

metering standard will vary depending on the sophistication and capabilities of different metering systems. Meade County RECC is presently in the process of installing Hunt Technologies TS2 Automated Metering Interface (AMI) system. *See Pogue Testimony* at 5. That system is currently installed on 6 of Meade County RECC's 16 substations. *See id.* Meade County RECC's system includes 25,668 meters. *See id.* The cost estimate for total implementation of this plan across its system is $2.8 million, with an annual operating cost of approximately $46,000. *See id.* This metering system will give Meade County RECC the ability to automate its meter reading program. To make the system compatible with time-of-use rates, however, additional investment would be required. *See id.* Based on the experience of Meade County RECC, the investment cost of a simple metering system with limited communications capabilities is approximately $109 per meter with an annual operating cost of nearly $2 per meter. *See Big Rivers Electric Corporation's Response to the Initial Data Requests Contained in Appendix C of the Public Service Commission's Order dated February 24, 2006, Response to Item 3* at 1. Again, in order to implement a time-of-use pricing scheme, a greater level of investment would be required. *See id.*

Recently, the Ontario Energy Board released its Smart Meter Implementation Plan. *See id.* In the plan at page 28, it estimates the smart metering cost for a new single-phase residential meter and communication system at approximately C$250 per installed meter. *See id.* The Ontario Board's Smart Meter Implementation Plan is available at its website: www.oeb.gov.on.ca. Big Rivers and its Member Cooperatives have no other information available to provide reliable estimates of how much it would cost to implement a system that would accommodate critical peak pricing or real-time pricing as suggested by the EPAct. *See id.*

Clearly, though, the financial impact of implementing a smart metering program would be substantial. *See id.*

The costs of implementing a smart metering program like that contemplated by the PURPA standard would be particularly harsh on Meade County RECC and other utilities that have already committed to installing the Hunt TS2 metering system.[1] If the Commission decides to implement smart metering in Kentucky, it will be necessary for the Commission to define exactly what a smart meter is. Should the Hunt TS2 system not qualify under the Commission's definition of a smart metering system, Meade County RECC will have to forfeit much of the substantial investment it has made in that system or will have to make significant additional expenditures to upgrade the system. Because it has no shareholders to bear these costs, Meade County RECC will need to pass on these costs to its retail members.

In addition to the costs of the meters themselves, the costs of a smart metering program would also include upgrades to the communications system required for the communications feedback loop to the customer that is necessary under a smart metering program to provide the customer with the current usage and cost information. *See Pogue Testimony* at 5-6. While Big Rivers and its Member Cooperatives have not undertaken any specific studies to determine the particular upgrades that will be required, it is likely that the communication systems in their rural, sparsely populated service territories will not be as robust as in the more urban areas of the state, and could require significant upgrades. *See id.*

As for the benefits of smart metering, they should be viewed with an eye toward the purposes set forth in PURPA, which are to encourage energy conservation, efficient use of facilities and resources by utilities, and equitable rates. Given the historic lack of customer

[1] This assumes that the smart metering standard would be made applicable every utility under the Commission's jurisdiction, whether or not the utility is covered by PURPA.

interest for time-of-use rates in Kentucky and particularly on the Big Rivers system, it is unlikely that the adoption of a smart metering program would have any significant impact on energy conservation, or that the extraordinary investment required to implement smart metering would result in lower rates since the substantial implementation costs would be spread over what would likely be a relatively few customers. In the face of these factors, Big Rivers cannot identify how a smart metering program would lead to more equitable rates on the Big Rivers system.

A second reason that the smart metering standard is not appropriate is that, unlike most utilities, Big Rivers' wholesale power arrangements are not time-sensitive. *See id.* at 7. Under its power purchase contract with LG&E Energy Marketing, Big Rivers' wholesale power costs are relatively constant, and cannot be advantaged by time-based factors that affect the costs of most utilities. And Big Rivers' wholesale contracts with its Members do not time differentiate costs. *See id.* So there is no opportunity, under the terms of Big Rivers' power purchase contract, for a smart metering program that would encourage a more efficient use of facilities and resources, or lead to more equitable rates on the Big Rivers system.

Based on the foregoing, the Commission should find there is no evidence that implementing a smart metering standard would be cost-effective for Big Rivers and the Member Cooperatives, that adoption of a smart metering standard is not appropriate to carry out the purposes of PURPA, and that it is otherwise inappropriate to adopt a smart metering standard. The Commission should decline to adopt a state-wide time-based rate or smart metering standard, and should instead continue its practice of allowing utilities to pursue time-based rates and smart metering on a case-by-case approach.

Utilities that have seen a sufficient demand for time-based rates have established time-of-use tariffs. Utilities are addressing, or will address, the use of smart meters on a case by case

basis as the need and demand arise. This utility-by-utility approach has worked thus far, and the Commission should continue to allow it to work.

However, should the Commission determine that a smart metering program is appropriate, at most, the Commission should test smart metering through a pilot program. A pilot program would allow for a realistic assessment of the costs and benefits of full implementation of smart metering. Should the Commission decide to adopt a smart metering standard, Big Rivers and its Member Cooperatives are willing to work in a collaborative fashion with the interested parties and the Commission to develop a meaningful pilot or trial program to carefully assess the costs and benefits of a smart metering program on their systems.

V.

The Commission should determine that it is not appropriate to implement the PURPA interconnection standard.

The Commission should also find that it is not appropriate to adopt the PURPA interconnection standard because that standard will not promote the purposes of PURPA. Utilities in Kentucky have already adopted interconnection standards that are equal or superior to the PURPA standard.

Big Rivers is a generation and transmission electric cooperative that is cooperatively owned by its three member distribution cooperatives, which are, in turn owned by their retail member customers. *See Housley Testimony* at 2. The Member Cooperatives own and operate the electrical distribution systems to which their retail member customers are connected, and from which they take retail electrical service. *See id.* Big Rivers owns and operates the electrical transmission system to which its Member Cooperatives are connected and over which they receive their wholesale electricity purchases. *See id.*

Like all other utilities in Kentucky, Big Rivers and its Member Cooperatives already have sufficient interconnection policies in place. *See id.* at 7. Even without implementation of the new EPAct standard, Big Rivers and its Members are willing to assist any retail member consumer with the ability to utilize available resources to its betterment through electric generation. *See id.* Therefore, there is no need for the Commission to adopt the EPAct interconnection standard.

Should the Commission determine that an interconnection standard is necessary, Big Rivers and its Member Cooperatives urge the Commission to refrain from adopting any standard which would interfere with a utility's ability to protect the safety and reliability of its transmission or distribution system. The PURPA interconnection standard requires that "[i]nterconnection services shall be offered based upon the standards developed by the Institute of Electrical and Electronics Engineers: IEEE Standard 1547 for Interconnecting Distributed Resources with Electric Power Systems, as them may be amended from time to time." 16 U.S.C. § 2621(15).

IEEE Standard 1547 referenced in the EPAct addresses the interconnection of distributed resources with an aggregate capacity of 10 MVA or less, interconnected at primary and/or secondary distribution voltages. *See Response of Big Rivers Electric Corporation, Jackson Purchase Energy Corporation, Kenergy Corp., and Meade County Rural Electric Cooperative Corporation to the Commission Staff's Second Information Request, Response to Item 6* at 1. It recognizes that electric power systems were not designed to accommodate active generation and storage at the distribution level, and it attempts to develop technical requirements for distributed resource ("DR") interconnection that address safety, performance, operation, testing, and maintenance considerations. *See Housley Testimony* at 4. The standard describes systems that a

DR must have in place and in good working order to assure the quality of the generation, its safe and timely shut down during times of distribution line faults, and the timely disconnection of the DR from the distribution system during faults on the DR system. *See id.* These systems are essential for the reliability and quality of service of the distribution grid, and for the safety of the electric utility workers during times of distribution line faults. *See id.* at 4-5. Therefore, any implementation of the EPAct must effectively require compliance with the IEEE 1547 standard to ensure not only that the described protection and monitoring systems will be installed, but also that those systems will be routinely inspected and maintained.

The Commission should not require Big Rivers and the Member Cooperatives to provide interconnection service based *solely* on IEEE Standard 1547. The IEEE 1547 standard alone is insufficient to protect the safety and reliability of the state's transmission and distribution systems. It is not a comprehensive standard. *See id.* at 5. It does not, for example, state the maximum capacity of DR generation that can be interconnected to any particular distribution system, it does not apply to interconnections to network systems, and it only provides general statements as to the necessary performance of DR generation and protective equipment, meaning additional tests or standards may be required to ensure safety and reliability. *See id.* The IEEE 1547 standard also does not address the methods used for performing electric utility impact studies of DR or associated tariff issues. *See id.*

Additionally, electric utilities specialize in the generation and delivery of electricity, and devote a tremendous amount of time and expense to training their electrical workers to work safely in the generation and delivery of electricity. *See id.* Distributed resources may not be owned and operated by experts, or by persons who are even experienced in the field of the generation and delivery of electricity. Utilities must have a high level of assurance that the

operator of a distributed resource has appropriate safeguards in place to focus attention on electrical safety and safety training, in order to minimize the likelihood of electrical accidents. *See id.* Thus, if the Commission adopts the IEEE 1547 standard or some other interconnection standard, it should not limit the ability of utilities to protect the safety and reliability of their systems.

As for the cost impact of interconnecting DR facilities, those costs are of particular concern to electric cooperatives such as Big Rivers and its Member Cooperatives because they are non-profit entities with no shareholders to absorb the costs of new programs. *See id.* at 6. Any such costs would be passed on, directly or indirectly, to the retail member consumers. *See id.* Moreover, the costs can be significant. *See id.* For example, a distribution line that is sized sufficiently for the rural electric cooperative to serve a sparsely populated area may have no incremental capacity to handle a proposed DR without costly upgrades. *See id.* For this reason, the total costs from any implementation of the EPAct in Kentucky which would affect Big Rivers or its members should be borne by the DR, who also stands to benefit if any profits are realized.

No DR project should be subsidized by non-participating members, either directly or indirectly through costs incurred by the member owned electric cooperative. The DR should bear all costs of interconnection, including all initial study and implementation costs, the utility's administrative cost of billing and inspection, and the initial and ongoing cost of testing and maintaining the protection systems described in the IEEE 1547 standard and any other protections that are appropriate to protect the distribution and transmission systems involved. Any regulation proposed to implement the EPAct in Kentucky should also require that an engineering study be performed at the expense of the DR to determine the adequacy of the

distribution line to handle the proposed generation. If there is generation net of the local load that will be absorbed into the distribution system, and the host distribution line is not sized to safely handle the generation, then all system improvements required to handle the generation should be the expense of the DR, and the cost of these system improvements should be assured before the interconnection is allowed. Any standards or procedures adopted by the Commission should not prevent cooperatives from fully recovering the costs of interconnection from the DR.

Finally, like other G&T's, Big Rivers generally supplies power to its Member Cooperatives pursuant to all requirements contracts. *See Housley Testimony* at 7. In order to protect the integrity of these contracts and to give the G&T more control over interconnections, the current practice of Big Rivers, like other G&T's, is to interconnect large distributed resources to the transmission system. *See id.* If the Commission decides to implement an interconnection standard, the standard should recognize this particular need.

Although it did not intervene in this matter, the Sierra Club did offer oral and written comments advocating that the Commission adopt a statewide interconnection standard in order to eliminate obstacles to interconnection. *See* Transcript of Evidence from the July 18, 2006, Hearing, at 15-16 (Public Statement by Geoffrey Young). Most of the Sierra Club's arguments have already been addressed by Big Rivers, its Member Cooperatives and other parties. One Sierra Club allegation not previously addressed is the suggestion that distributed generation could alleviate the need for distribution system upgrades that require cutting of trees and other alterations to the environment. The Sierra Club does not consider, however, that distribution lines are upgraded to safely and reliably handle increases in the flow of electric current, regardless of the direction in which the current is flowing. So, a distributed generation facility located in an area where distribution facilities are sized for minimal loading may require system

upgrades that also disturb the environment. If the Commission finds that this or any other factual conclusion asserted by the Sierra Club in its public statements (which were first made and filed at the hearing in this proceeding on July 18, 2006) are pivotal to the Commission's deliberations, Big Rivers and its Member Cooperatives request that they and the other parties in this matter be given an opportunity to explore and potentially offer evidence to rebut that assertion.

If an interconnection standard is adopted by the Commission, it should be consistent with current practices and should allow interconnection to the transmission system on terms that will maintain the integrity of the cooperatives' all requirements contracts. Power that enters the distribution grid should be netted out of the wholesale meter that measures the wholesale consumption of the host member cooperative, and the generation received by Big Rivers into the distribution grid should be purchased from the DR by Big Rivers at Big Rivers' avoided cost of generation. Big Rivers' avoided cost of generation should be defined as its variable operational and maintenance cost. At such time that Big Rivers is in need of additional generation, the avoided cost would also include the cost of the new generation.

VI.

CONCLUSION

Big Rivers and its Member Cooperatives are member-owned and member-driven electric utilities. In considering the impacts of the EPAct standards, they weigh the costs and benefits of the proposed standards based upon the best interests of their member-owners. The Commission should not adopt a smart metering standard, or at most, should implement nothing more than a limited smart metering pilot program. A smart metering program applied generally to Big Rivers and the Member Cooperatives would not advance the PURPA purposes of increasing conservation of energy, optimizing the efficiency of utility facilities and resources, and

producing more equitable rates. The rates of Big Rivers and the Member Cooperatives do not vary by time of day, and the benefits of smart metering have not been shown to outweigh the costs. There is simply insufficient customer interest or likelihood of cost-effectiveness to justify mandating smart metering. However, if such a program is implemented, the costs of any smart metering or smart metering pilot program adopted by the Commission should be borne by the participants, and any such program should also protect the investment that several utilities, including Meade County RECC, have made in the Hunt TS2 metering system.

The Commission should also refrain from adopting an interconnection standard. It should instead continue to permit Big Rivers and its Members Cooperatives to establish the safeguards for each DR that are necessary to ensure that the DR does not place a burden on its neighboring retail member consumers, or create safety or health risks for the DR or its neighbors. As with the costs associated with implementing any smart metering program, the costs of implementing any interconnection standard should also be borne by the participant that benefits from the interconnection.

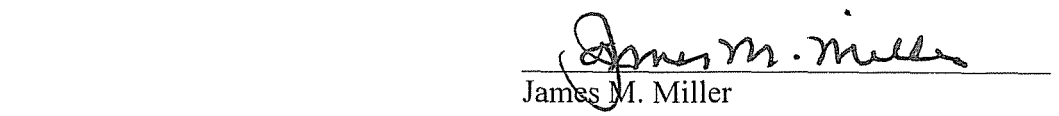
Whether or not the Commission finds it appropriate to adopt either a smart metering standard or an interconnection standard, Big Rivers and Meade County RECC request that the Commission recognize that they are not covered utilities under PURPA and the EPAct, and are exempt from any such standards.

Finally, JPEC requests that the Commission appropriately notify DOE pursuant to 16 U.S.C. § 2612 (c) that the list of PURPA "covered utilities" published by DOE in August of 2006 should be corrected to show JPEC as being subject to Commission jurisdiction.

On this the 29th day of August, 2006.

Respectfully submitted,

SULLIVAN, MOUNTJOY, STAINBACK
& MILLER, P.S.C.



James M. Miller
Tyson Kamuf
100 St. Ann Street, P. O. Box 727
Owensboro, Kentucky 42302-0727
(270) 926-4000
jmiller@smsmlaw.com
Counsel for Big Rivers, JPEC, Kenergy, and Meade County RECC