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VIA HAND DELIVERY

July 6, 2010

Mr. Jeff Derouen
Executive Director
Kentucky Public Service Commission
211 Sower Blvd.
Frankfort, KY 40601

RECEIVED
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PUBLIC SERVICE
COMMISSION

Re: Case No. 2010-00203

Dear Mr. Derouen:

Enclosed please find an original and twelve copies of the *Direct Testimony of James B. Gainer*, *Direct Testimony of William Don Wathen*, *Direct Testimony of Kenneth J. Jennings*, and the *Direct Testimony of John D. Swez on Behalf of Duke Energy Kentucky* being filed in the above referenced matter.

Please date-stamp the two copies of the letter and the filings and return to me in the enclosed envelope.

Sincerely,

Dianne B. Kuhnell
Senior Paralegal

cc: Dennis Howard

BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION

In The Matter of:

Duke Energy Kentucky, Inc.'s Application for Approval)	Case No. 2010-00203
To Transfer Functional Control of its Transmission Assets)	
From the Midwest Independent Transmission System)	
Operator to the PJM Interconnection Regional Transmission)	
Organization And Request for Expedited Treatment)	

DIRECT TESTIMONY OF
KENNETH J. JENNINGS
ON BEHALF OF
DUKE ENERGY KENTUCKY, INC.

July 6, 2010

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I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Kenneth J. Jennings, and my business address is 139 East Fourth
3 Street, Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services, LLC (DEBS) as Director of
6 Market Policy & RTO Services. DEBS provides various administrative and other
7 services to Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the
8 Company) and other affiliated companies of Duke Energy Corporation (Duke
9 Energy).

10 **Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATION AND**
11 **PROFESSIONAL EXPERIENCE.**

12 A. I received an A.A.S. in Manufacturing Technology, and a B.S. in Manufacturing
13 from Northern Kentucky University in 1991 and 1993, respectively. I also
14 completed a Masters Degree in Business Administration from Thomas More
15 College in 2005. I have attended many seminars, workshops and forums on
16 generation resource planning, generation unit performance management, and
17 other business, and electric and gas utility related topics. Prior to joining Cinergy
18 Corp. (Cinergy), I was employed by Philips Services Corporation as a Project
19 Engineer and by Aurora Casket Company as a Process Engineer. I began working
20 for Cinergy in 1999 in the Engineering and Construction Group of Cinergy
21 Generation Resources, LLC. I have held positions, such as Manager of Business
22 Analysis, Station Performance Engineer at Miami Fort Station in North Bend,

1 Ohio, Technical Analysis Engineer in the Business Development Support Group,
2 and Conditioned Based Maintenance Team Lead over thermal performance of all
3 Cincinnati Gas & Electric generation facilities in Cincinnati. I was promoted to
4 my current position in April of 2006.

5 **Q. PLEASE BRIEFLY DESCRIBE YOUR DUTIES AS DIRECTOR OF**
6 **MARKET POLICY & RTO SERVICES.**

7 A. On behalf of Duke Energy Ohio, Inc., (Duke Energy Ohio) I am responsible for
8 establishing and maintaining a working relationship with PJM Interconnection,
9 L.L.C. (PJM) and stakeholders in order to shape market policy and ensure
10 compliance with market rules in PJM for the 3,100 MWs of gas-fired generation
11 in PJM that is owned and operated by Duke Energy Ohio, Inc.

12 I am also the subject matter expert for Duke Energy with regard to PJM. I
13 actively participate in the PJM stakeholder process, where I am the voting
14 member for Duke Energy. I also follow the Federal Energy Regulatory
15 Commission (FERC) proceedings related to PJM activities, and have actively
16 participated in settlements such as the PJM Reliability Pricing Model (RPM)
17 settlement at the FERC.

18 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**
19 **PUBLIC SERVICE COMMISSION?**

20 A. No.

21 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
22 **PROCEEDING?**

23 A. I will provide a detailed description of how the capacity market operates in the

1 PJM Regional Transmission Organization (RTO) and the potential benefits of that
2 market.

II. DISCUSSION

3 **Q. PLEASE DESCRIBE PJM'S CAPACITY MARKET.**

4 A. PJM's capacity market is called RPM, which is an acronym for Reliability Pricing
5 Model. The PJM capacity market is designed to ensure the adequate availability
6 of necessary resources that can be called upon to ensure the reliability of the
7 electric transmission grid. In PJM, the capacity market structure provides
8 transparent forward capacity market signals to support infrastructure investment.
9 RPM procurement auctions are conducted three years in advance of the actual
10 prompt year in order to allow bidders to complete construction on their projects if
11 they are to clear the auction. The PJM capacity market provides incentives for the
12 development of generation, demand response, energy efficiency, and transmission
13 solutions. In addition to a forward price signal, the RPM construct also provides a
14 locational price signal, in order to recognize and quantify the locational value of
15 capacity.

16 RPM clears capacity at the intersection of a supply curve and an
17 administratively-determined demand curve, called the Variable Resource
18 Requirement (VRR) Curve. The VRR curve is a downward sloping curve that
19 provides for the price of capacity to adjust itself up and down as economic supply
20 in the market increases and decreases. Subsequently, as supply exceeds the PJM
21 Installed Reserve Margin, the price decreases. PJM utilizes four auctions up to
22 the prompt year in order to procure the correct amount of capacity supply for the

1 actual demand in the delivery year. The first auction, called the Base Residual
2 Auction (BRA) typically occurs in May for the delivery year beginning in June
3 three years into the future. Then, around September of the following year, PJM
4 will hold a First Incremental Auction. Around July of the following year, PJM
5 will hold its Second Incremental Auction. Finally, around six months later, in
6 January, after the final effective Equivalent Forced Outage Rate in Demand
7 (EFOR_d) ratings are posted, PJM will hold its Third Incremental Auction. This
8 occurs five months before the beginning of the delivery year, which starts on June
9 1st. Each incremental auction is an opportunity for both suppliers and PJM to
10 balance their respective capacity positions, meaning that if a supplier sold too
11 much capacity due to changes in EFOR_d, it can buy back some of the capacity that
12 it previously sold in the BRA or a previous Incremental Auction. Similarly, if
13 PJM finds that the peak load forecast was too high or too low, and it subsequently
14 procured too much or too little in the BRA, it can sell back or buy more capacity
15 to balance to the actual reliability requirements.

16 There is also an alternate way to participate in PJM's capacity construct
17 which is essentially an opt-out provision called the Fixed Resource Requirement
18 (FRR). The FRR alternative provides a Load Serving Entity (LSE) with the
19 option to submit an FRR Capacity Plan and meet a fixed capacity resource
20 requirement. This allows the LSE to match its reliability requirement to its own
21 generation, demand response, energy efficiency and/or transmission resources,
22 while still being permitted to sell some or all of its excess supply into RPM
23 auctions up to the FRR Limit. The FRR limit is the lesser of 25% of the

1 Preliminary Unforced Capacity Obligation or 1,300 MW. For example, if the
2 Duke Energy Kentucky reliability requirement was 1,000 MWs, then its FRR
3 sales limit would be 250 MWs.

4 **Q. DOES PJM EVER PROCURE MORE CAPACITY THAN IS REQUIRED**
5 **BY ITS INSTALLED RESERVE MARGIN?**

6 A. Yes. The target of RPM is to procure capacity to meet the installed reserve
7 margin (IRM), which corresponds to the PJM reliability requirement of one event
8 in 10 years loss of load expectation as set by ReliabilityFirst Corporation, the
9 NERC Reliability Entity for PJM. However, it can be more or less as determined
10 by the intersection of the RPM supply curve developed by capacity offers in the
11 BRA with the VRR demand curve previously discussed. The maximum amount
12 that RPM allows in the procurement algorithm is IRM plus 5%; however, at that
13 level, the clearing price is at the lowest possible price per PJM Manual 18, "PJM
14 Capacity Market." Furthermore, while the price is lower, the overall cost to the
15 market is lower as well, even though a higher quantity has been procured and
16 reliability has increased.

17 RPM is much like any other resource plan with regard to lumpy
18 development. This results in small amounts of capacity that may not be needed
19 immediately when the resource is constructed, but are known to be needed in the
20 near future.

21 LSEs that elect the FRR Option can avoid being subject to any possible
22 over-procurement in the RPM process rather than being subject to the VRR
23 embedded in RPM. Essentially, PJM will calculate the LSE's reliability

1 requirement based on a fixed installed reserve margin. However, once an LSE
2 commits to the FRR option, it is locked into it for five consecutive delivery years.
3 Therefore, if the LSE finds itself capacity insufficient in a subsequent delivery
4 year, it may need to purchase additional capacity through a bilateral contract or it
5 may need to complete a project that may exist in the interconnection queue or
6 perhaps develop some demand response resources to cover any capacity short that
7 may exist, where as non-FRR LSEs merely allow PJM to procure capacity on
8 their behalf.

9 **Q. WHAT POTENTIAL BENEFITS MAY DUKE ENERGY KENTUCKY'S**
10 **CUSTOMERS REALIZE AS A RESULT OF PJM'S CAPACITY**
11 **CONSTRUCT?**

12 A. Duke Energy Kentucky witness John D. Swez discusses the potential and specific
13 benefits for Duke Energy Kentucky and its customers in his direct testimony.
14 Based upon my experience with the PJM Capacity Market, the first and most
15 transparent benefit is the incentive for a diverse variety of resources that can be
16 utilized in RPM. Since the implementation of RPM, PJM has seen an increase of
17 over 1600% in the area of load modifying resources. This includes demand
18 response and energy efficiency projects. Energy efficiency projects are projects
19 that are permanent decreases in load.

20 Secondly, PJM's three-year forward price signal provides a utility
21 adequate time to respond to changes in resource requirements as they develop.

III. CONCLUSION

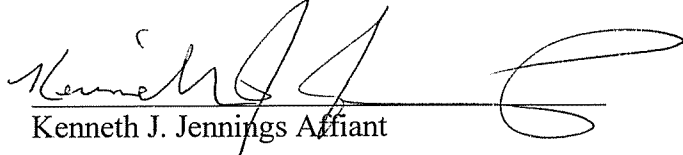
1 Q. DOES THIS CONCLUDE YOUR PREFILED TESTIMONY?

2 A. Yes.

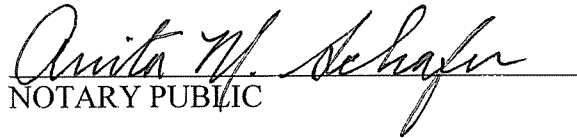
VERIFICATION

State of Ohio)
)
County of Hamilton) SS:

The undersigned, Kenneth J. Jennings, being duly sworn, deposes and says that he is the Director of Market Policy & RTO Services of Duke Energy Business Services, LLC., that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.


Kenneth J. Jennings Affiant

Subscribed and sworn to before me by KENNETH J. JENNINGS on this 30 day of JUNE, 2010.


NOTARY PUBLIC

My Commission Expires:



ANITA M. SCHAFFER
Notary Public, State of Ohio
My Commission Expires
November 4, 2014

**BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION**

In The Matter of:

Duke Energy Kentucky, Inc.'s Application for Approval)	Case No. 2010-00203
To Transfer Functional Control of its Transmission Assets)	
From the Midwest Independent Transmission System)	
Operator to the PJM Interconnection Regional Transmission)	
Organization And Request for Expedited Treatment)	

**DIRECT TESTIMONY OF
JOHN D. SWEZ
ON BEHALF OF
DUKE ENERGY KENTUCKY, INC.**

July 6, 2010

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I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is John D. Swez, and my business address is 526 South Church Street,
3 Charlotte, North Carolina 28202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services LLC (DEBS) as Director, Bulk
6 Power Marketing and Trading. DEBS provides various administrative and other
7 services to Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the
8 Company) and other affiliated companies of Duke Energy Corporation (Duke
9 Energy).

10 **Q. PLEASE BRIEFLY DESCRIBE YOUR EDUCATION AND**
11 **PROFESSIONAL BUSINESS EXPERIENCE.**

12 A. I received a Bachelor of Science degree in Mechanical Engineering from Purdue
13 University in 1992. I received a Masters of Business Administration degree from
14 the University of Indianapolis in 1995. I joined the Company in 1992 and have
15 held various engineering positions with the Company or its affiliates in the Power
16 Services and Power Trading departments. In 2003, I assumed the position of
17 Manager, Real-Time Operations. My title has changed on several occasions. I
18 assumed my current role on January 1, 2006.

19 **Q. PLEASE BRIEFLY DESCRIBE YOUR DUTIES AS DIRECTOR, BULK**
20 **POWER MARKETING AND TRADING, AS THEY RELATE TO DUKE**
21 **ENERGY KENTUCKY.**

22 A. I am responsible for the Company's: (i) generating dispatch; (ii) unit
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JOHN D. SWEZ

1 commitment; (iii) 24-hour real-time operations; (iv) plant communications related
2 to short-term generating maintenance planning; and (v) gas procurement. I am
3 also responsible for the submission of the Company's supply offers to the
4 Midwest Independent Transmission System Operator, Inc. (Midwest ISO) for the
5 Midwest ISO's day-ahead and real-time electric energy markets (Energy Markets)
6 and the Midwest ISO's ancillary services markets (ASM) in the Midwest ISO
7 region¹ (Midwest ISO Markets), as well as managing the Company's short-term
8 supply position to ensure that the Company has adequate resources committed to
9 serve its retail customers' electricity needs.

10 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**
11 **PUBLIC SERVICE COMMISSION?**

12 A. Yes. I have regularly provided testimony as part of Duke Energy Kentucky's Fuel
13 Adjustment Clause proceedings.

14 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

15 A. I will provide an overview of the Midwest ISO Markets. Then, I briefly comment
16 on Duke Energy Kentucky's current operations under the Midwest ISO. I will
17 then discuss how Duke Energy Kentucky will operate in PJM Interconnection,
18 L.L.C. (PJM) once it completes its RTO realignment and the impact on Duke
19 Energy Kentucky's generation resulting from Duke Energy Ohio's planned move
20 from the Midwest ISO to PJM. I will also address the amount and basis of Duke
21 Energy Kentucky's anticipated costs of integration into PJM and the amount and
22 basis of Duke Energy Kentucky's annual membership and administrative fees for

¹ These markets are often referred to as the "Energy and Operating Reserve Markets."
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1 PJM. Finally, I will discuss the potential benefits of the realignment to Duke
2 Energy Kentucky and its customers.

II. OVERVIEW OF THE MIDWEST ISO'S ENERGY MARKETS

3 **Q. ARE YOU FAMILIAR WITH THE MIDWEST ISO'S ENERGY AND**
4 **OPERATING RESERVE MARKETS?**

5 A. Yes. I manage the team that is responsible for participating in these markets on
6 behalf of Duke Energy Kentucky and Duke Energy's regulated electric utility
7 located in Indiana.

8 **Q. PLEASE GENERALLY DESCRIBE THE MIDWEST ISO'S ENERGY**
9 **MARKETS.**

10 A. The principal document governing the operation of the Energy Markets,, is the
11 Transmission and Energy Markets Tariff (Midwest ISO Tariff). Among other
12 matters, the Company is required to arrange for and purchase transmission service
13 on behalf of its retail customers pursuant to the Midwest ISO Tariff.

14 Under the Midwest ISO Tariff, the Midwest ISO administers both day-
15 ahead and real-time markets for electric energy utilizing locational marginal
16 pricing (LMP) and financial transmission rights (FTRs). Both markets are based
17 on supply offers and demand bids submitted to the Midwest ISO by market
18 participants, including both generator owners (as sellers) and load serving entities
19 (as buyers). Thus, the Company functions as both a seller and a buyer in the
20 Energy Markets to serve its retail electric customers in Kentucky

21 The real-time energy market functions as a real-time balancing market.

22 The day-ahead market provides a means for market participants to mitigate their

1 exposure to price risk in the real-time market. The day-ahead market also
2 provides meaningful information to the Midwest ISO regarding expected real-
3 time operating conditions for the next day, which enhances the Midwest ISO's
4 ability to ensure reliable operation of the transmission system. Additionally, LMP
5 provides a market-based solution to manage transmission congestion and to place
6 a value on marginal losses in the Midwest ISO region.

7 **Q. PLEASE GENERALLY DESCRIBE DUKE ENERGY KENTUCKY'S**
8 **PARTICIPATION IN THE MIDWEST ISO.**

9 A. Duke Energy Kentucky is currently a market participant of the Midwest ISO.
10 Duke Energy Kentucky owns three generating stations, representing a total of
11 1,141 megawatts of capacity (winter rating), and a 69 kV distribution and
12 transmission system to serve its retail load. The only transmission facilities
13 greater than 69 kV owned by Duke Energy Kentucky consist of the eighteen
14 "high side" 138 kV Connections. Duke Energy Ohio owns the transmission
15 delivery facilities located in Kentucky above 69 kV. Neither the Midwest ISO
16 nor PJM typically assumes functional control over transmission facilities under
17 100 kV. Since joining the Midwest ISO, Duke Energy Kentucky has participated
18 in the energy and ancillary markets but has maintained functional/operational
19 control over its generation and distribution and transmission facilities (other than
20 the 138 kV Connections). This will not change with the move to PJM.

21 As part of the historical arrangement with the Midwest ISO, Duke Energy
22 Kentucky's transmission facilities (69 kV and aforementioned 138 kV
23 Connections) are allocated a portion of the transmission revenues collected by the

1 Midwest ISO as agent for Duke Energy Kentucky under the Midwest ISO
2 Attachment O.

3 Duke Energy Kentucky has the ability to self-schedule certain resources to
4 ensure that those resources are committed and dispatched. Additionally, Duke
5 Energy Kentucky operates under a back-up power supply plan consisting of
6 capacity purchases through bilateral contracts and energy purchases through the
7 Midwest ISO daily energy markets with forward contracts purchased through
8 Intercontinental Exchange (ICE) and Over The Counter (OTC) brokers for
9 scheduled outages. Duke Energy Kentucky may purchase capacity during times
10 when Duke Kentucky does not have adequate capacity to meet the Midwest ISO
11 module E reserve margin requirement. The current back-up supply plan runs
12 through 2012.

III. OVERVIEW OF PJM AND DUKE ENERGY KENTUCKY'S
RTO REALIGNMENT

13 **Q. PLEASE DESCRIBE THE PJM AND MIDWEST ISO ENERGY AND**
14 **CAPACITY MARKETS AND HOW THEY COMPARE.**

15 A. Duke Energy Kentucky Witness Kenneth J. Jennings describes the PJM
16 Reliability Pricing Model and capacity market in his direct testimony. Generally
17 speaking, the energy markets of PJM and the Midwest ISO are very comparable
18 in terms of price and operation. Based upon historic LMPs, the markets are very
19 similar. Duke Energy Kentucky expects that there will be no material change in
20 the wholesale cost of energy arising from this change. The marginal price
21 differential between the PJM and Midwest ISO energy markets in this region

1 tends to be relatively small. Therefore, the effect on cost to serve load – positive
2 or negative – should be small when Duke Energy Kentucky purchases energy.

3 The capacity markets, however, are simply not comparable in terms of
4 price because they function in entirely different ways. In terms of how the two
5 capacity markets operate, the PJM capacity market has at least one advantage
6 over the Midwest ISO. The PJM capacity market transacts farther into the future
7 than the Midwest ISO. That forward-looking transparency provides a greater
8 level of price predictability and should allow the Company to better plan and
9 optimize its generation resources.

10 **Q. PLEASE EXPLAIN HOW DUKE ENERGY KENTUCKY WILL**
11 **OPERATE IN PJM ONCE THE REALIGNMENT IS COMPLETED.**

12 A. Duke Energy Kentucky will operate in PJM in much the same manner as it does
13 today in the Midwest ISO. The Company will continue to offer its generation into
14 the market and bid its load. PJM operates both a day-ahead market and real-time
15 (balancing) market for energy. For the Duke Energy Kentucky generating
16 capacity, the Company will have the ability to choose to offer in either the
17 Reliability Pricing Model (RPM) forward capacity auction or the Fixed Resource
18 Requirement (FRR) capacity plan. There are benefits to both options. Duke
19 Energy Kentucky is in the process of evaluating which direction it will choose to
20 take and will make its decision prior to completing the realignment. The
21 generating resources that clear in the RPM capacity auction and those capacity
22 resources committed in the FRR plan will have a must-offer obligation for their
23 energy in the day-ahead energy market. PJM will commit and dispatch these

1 resources via their security constrained unit commitment and economic dispatch
2 software by modeling the Duke Energy Kentucky generating resources with all
3 other generating resources in the PJM area. If not committed day-ahead, the units
4 may still be called on in real-time. There are separate LMPs calculated for day-
5 ahead versus real-time that are paid to the generators or charged to the load. PJM
6 also operates an ancillary service market for regulation, synchronized, and
7 supplemental reserves, each of which is cleared separately with different prices
8 for each product. Duke Energy Kentucky participates in these ancillary service
9 markets in the Midwest ISO and intends to do the same in the PJM ancillary
10 service markets. The Duke Energy Kentucky Woodsdale gas-fired combustion
11 turbine plant is qualified as a black start resource in the Midwest ISO. Depending
12 on the black start requirements yet to be determined for the new Duke Energy
13 Zone in PJM, Woodsdale may also choose to offer such service in PJM. Duke
14 Energy Kentucky will operate its generating resources to optimize revenues
15 available in the PJM capacity market, energy market, ancillary services, and black
16 start service in a reliable manner for the benefit of customers and shareholders.

17 **Q. WILL CUSTOMERS OF DUKE ENERGY KENTUCKY PAY MORE FOR**
18 **CAPACITY AS A RESULT OF A MOVE TO PJM?**

19 A. No. Given Rider PSM, Duke Energy Kentucky customers have the opportunity to
20 share in any revenues realized from Duke Energy Kentucky generation cleared in
21 PJM RPM auctions in excess of Duke Energy Kentucky load requirements.
22 PJM's capacity market is much like energy markets. Based upon its most recent
23 integrated resource plan and given that Duke Energy Kentucky has generation

1 that is at least equal to its load, one would not expect Duke Energy Kentucky to
2 experience capacity charges.

3 **Q. PLEASE DESCRIBE SOME OF THE TANGIBLE BENEFITS**
4 **ASSOCIATED WITH DUKE ENERGY KENTUCKY'S ANTICIPATED**
5 **MOVE TO PJM.**

6 A. PJM's transparent capacity market should facilitate off-system sales of capacity
7 or, in the event that the Company requires additional capacity in the future, allow
8 for the economic purchase of capacity through a monitored market. As the
9 capacity market for the PJM market is forward looking, the Company, and in turn
10 customers, are afforded a greater level of certainty with regard to future capacity
11 prices. This price certainty will be beneficial for future resource planning. This
12 information will assist the Company and the Commission in evaluating over time
13 appropriate changes to the capacity resources secured to serve the Company's
14 customers.

15 **Q. WILL THE RTO REALIGNMENT TO PJM ADVERSELY AFFECT**
16 **DUKE ENERGY KENTUCKY'S ABILITY TO ENGAGE IN OFF-**
17 **SYSTEM SALES?**

18 A. No. Duke Energy Kentucky expects that the RTO realignment will not adversely
19 affect the Company's ability to engage in off-system energy sales. Depending
20 upon the LMP at the generation nodes and the current customer demand, Duke
21 Energy Kentucky will continue to be either a net buyer or seller of energy.

22 For capacity sales to the market, Duke Energy Kentucky currently has
23 sufficient capacity to satisfy its load, with surplus to provide the ability to engage

1 in off-system sales for several years.² Capacity sales will likely be enhanced in a
2 PJM alignment because PJM's transparent, forward capacity market will facilitate
3 portfolio optimization. As more fully explained by Duke Energy Kentucky
4 Witness William Don Wathen Jr., this, in turn, directly benefits Kentucky
5 customers because Duke Energy Kentucky has an off-system sales sharing
6 mechanism (Rider PSM) where customers share in the benefits of the sales
7 through a bill credit.

8 **Q. ARE THERE ANY OTHER BENEFITS TO DUKE ENERGY**
9 **KENTUCKY'S RTO REALIGNMENT INTO PJM?**

10 A. Yes. Realigning into PJM will result in Duke Energy Kentucky's generation
11 being entirely in a single RTO. Duke Energy Kentucky's East Bend Generating
12 Station, although operated fully by Duke Energy Kentucky, is partially owned by
13 the Dayton Power and Light Company (DP&L). DP&L is a member of PJM.
14 Today, the East Bend Station is currently receiving signals from both the Midwest
15 ISO and PJM. This dual RTO situation has not caused any significant issues thus
16 far; however, having the station in a single RTO will make planning for outages,
17 capital improvements and other operational expenses easier as the joint owners
18 will only have a single RTO to schedule outages. Also, because Duke Energy
19 Ohio is going to realign with PJM, Duke Energy Kentucky's realignment will also
20 permit the Company to continue operating in an efficient manner.

² *In the matter of the 2008 Integrated Resource Plan of Duke Energy Kentucky, Inc., Case No. 2008-00248,*
(filed July 1, 2008) (Staff Report Issued April 22, 2010).
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IV. ALTERNATIVES TO REALIGNING WITH PJM

1 **Q. PLEASE EXPLAIN THE IMPACT ON DUKE ENERGY KENTUCKY'S**
2 **GENERATION RESULTING FROM DUKE ENERGY OHIO'S PLANNED**
3 **MOVE FROM THE MIDWEST ISO TO PJM?**

4 A. Once Duke Energy Ohio moves from the Midwest ISO to PJM, Duke Energy
5 Kentucky's generation, located in Ohio and Kentucky which is attached to and
6 dependent upon Duke Energy Ohio's transmission delivery system, will be in
7 PJM regardless of whether Duke Energy Kentucky officially moves to PJM.
8 Duke Energy Kentucky's generation will be dispatched into PJM and the
9 Company will be subject to associated PJM transmission costs under the Federal
10 Energy Regulatory Commission (FERC) open access transmission tariffs
11 (OATT). This is really no different than how the Company operates today in the
12 Midwest ISO.

13 If Duke Energy Kentucky moves to PJM along with Duke Energy Ohio,
14 the impact on Duke Energy Kentucky generation moving from Midwest ISO to
15 PJM is expected to be minimal. Of the three Duke Energy Kentucky generating
16 facilities, Miami Fort Unit 6 and East Bend Unit 2 are coal-fired units and the
17 expectation is that they would be committed and dispatched in a pattern similar to
18 today. Woodsdale is a simple cycle gas-fired combustion turbine peaking station.
19 The Company expects that the dispatch of the Woodsdale station will not be
20 adversely impacted by realignment with PJM. Overall, the expectation is that
21 from an energy perspective, Duke Energy Kentucky customers would actually be
22 better off in PJM, partially due to increased opportunity in the off-peak period.

1 **Q. IS IT POSSIBLE FOR DUKE ENERGY KENTUCKY TO STAY IN THE**
2 **MIDWEST ISO EVEN IF DUKE ENERGY OHIO WITHDRAWS AND**
3 **JOINS PJM?**

4 A. Yes, it is possible. However, due to the Company’s unique operational situation,
5 it is not reasonable or in the public interest for Duke Energy Kentucky to remain
6 in the Midwest ISO after Duke Energy Ohio realigns with PJM. The complexity
7 created by Duke Energy Kentucky staying in the Midwest ISO would translate
8 into additional costs to the Company and ultimately to customers. This is because
9 Duke Energy Kentucky’s distribution system serving its entire load would be
10 separated from the Midwest ISO by Duke Energy Ohio’s transmission system
11 (*i.e.*, PJM will be between Duke Energy Kentucky and the Midwest ISO).
12 Remaining in the Midwest ISO creates an unnecessary RTO seam directly
13 between Duke Energy Kentucky’s generation and its distribution to serve
14 customer load. To operate under such a scenario, Duke Energy Kentucky would
15 have to “pseudo-tie” its load *through* PJM to the Midwest ISO, and to further
16 pseudo-tie Duke Energy Kentucky’s generation *from* PJM to the Midwest ISO,
17 which would thus preserve, in virtual form, some mode of Duke Energy Kentucky
18 participation in the Midwest ISO. However, the pseudo-tie arrangements will add
19 unnecessary complexity and costs to how Duke Energy Kentucky would operate
20 on a day-to-day basis. Depending upon the arrangement of such a structure, the
21 Company may have to allocate additional labor resources to monitor the nuances
22 and potential conflicting signals between the two RTOs for the Company’s entire
23 footprint as well as to complete the additional scheduling functions. To continue

1 to deliver power into the Midwest ISO, Duke Energy Kentucky may need to
2 install additional metering and other equipment.

3 In addition to the types of explicit costs referenced above, the Company is
4 concerned that in such a setup, in balancing the signals from the two RTOs, there
5 is a greater potential for a differential between the price Duke Energy Kentucky is
6 paid for the power it generates in one RTO and the price the load pays for the
7 power it consumes in the other, even without factoring in the added costs for the
8 pseudo-tie arrangement. The Company has no way of knowing what the price
9 differential may be under such a scenario. This could be a significant “hidden
10 cost” of staying behind in the Midwest ISO. The operational complexities and
11 additional costs associated with remaining in the Midwest ISO would be avoided
12 if Duke Energy Kentucky realigns with PJM at the same time as Duke Energy
13 Ohio.

14 **Q. DID DUKE ENERGY KENTUCKY CONSIDER ANY OTHER**
15 **ALTERNATIVES TO RTO MEMBERSHIP?**

16 A. Yes. Duke Energy Kentucky also considered, for sake of completeness, a third
17 alternative, namely dropping Duke Energy Kentucky out of the Midwest ISO but
18 not joining PJM. It quickly became apparent that this alternative is unworkable.
19 Duke Energy Kentucky is too small to operate on an economically efficient basis
20 as its own balancing area authority. In addition, with such a small balancing
21 authority, holding the appropriate amounts of regulating and contingency
22 reserves, as well as meeting certain NERC reliability criteria, could be
23 problematic. And, as in the scenario involving staying in the Midwest ISO, Duke

1 Energy Kentucky would lose the benefit of having dispatch of generation to serve
2 its load optimized as part of a single market because its generation would be in
3 PJM.

V. COST IMPACTS TO DUKE ENERGY KENTUCKY

4 **Q. PLEASE DESCRIBE THE AMOUNT AND BASIS OF DUKE ENERGY**
5 **KENTUCKY'S COST OF INTEGRATION INTO PJM.**

6 A. The estimated cost of Duke Energy Kentucky's integration into PJM is a one-time
7 charge of approximately \$4 million, which represents the load ratio share of Duke
8 Energy Kentucky's load compared to the combined Duke Energy Ohio and Duke
9 Energy Kentucky load multiplied by the total estimated one-time charge of
10 companies' estimated integration cost of \$27 million.

11 **Q. PLEASE DESCRIBE THE AMOUNT AND BASIS OF DUKE ENERGY**
12 **KENTUCKY'S ANNUAL MEMBERSHIP AND ADMINISTRATIVE FEES**
13 **FOR PJM.**

14 A. Duke Energy Kentucky's annual membership fee is estimated to be \$1,000, which
15 is 1/5 of the annual Duke Energy membership fee of \$5,000. With both Duke
16 Energy Kentucky and Duke Energy Ohio in PJM, there will be five Duke Energy
17 affiliates in PJM, therefore, the 1/5 allocation to Duke Energy Kentucky. PJM
18 administrative fees are on a stated rate basis. The PJM stated rate is \$0.31/MWH
19 of load served, which for Duke Energy Kentucky in 2009 was approximately
20 4,000,000 MWH. Therefore, the Duke Energy Kentucky administrative charge
21 from PJM would be approximately \$1.24 million.

1 **Q. ARE THERE ANY OTHER COSTS ASSOCIATED WITH THE RTO**
2 **REALIGNMENT THAT HAVE NOT BEEN ADDRESSED IN YOUR**
3 **TESTIMONY?**

4 A. Yes. There will also be an exit fee assessed by the Midwest ISO and there will be
5 costs associated with transmission expansion programs with both PJM and the
6 Midwest ISO. Mr. Gainer and Mr. Wathen discuss those costs and the
7 Company's proposed treatment thereof in their direct testimony respectively. In
8 addition, there will be minor PJM training expenses and certification expenses.
9 The Company does not believe the training or certification costs will be
10 significant.

VI. CONCLUSION

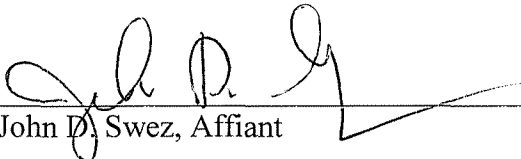
11 **Q. DOES THIS CONCLUDE YOUR PREPARED DIRECT TESTIMONY?**

A. Yes.

VERIFICATION

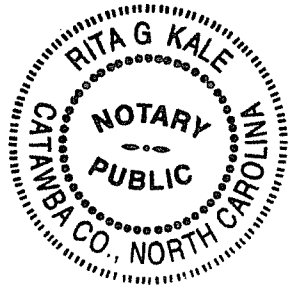
State of North Carolina)
)
County of Mecklenburg) SS:


The undersigned, John D. Swez, being duly sworn, deposes and says that he is the Director, Bulk Power Marketing and Trading of Duke Energy Business Services, LLC., that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.



John D. Swez, Affiant

Subscribed and sworn to before me by John D. Swez on this 28 day
of June, 2010.





NOTARY PUBLIC

My Commission Expires: 6/17/12

**BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION**

In The Matter of:

Duke Energy Kentucky, Inc.'s Application for Approval)	Case No. 2010-00203
To Transfer Functional Control of its Transmission Assets)	
From the Midwest Independent Transmission System)	
Operator to the PJM Interconnection Regional Transmission)	
Organization And Request for Expedited Treatment)	

**DIRECT TESTIMONY OF
JAMES B. GAINER
ON BEHALF OF
DUKE ENERGY KENTUCKY, INC.**

July 6, 2010

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ATTACHMENT:

JBG-1 PJM Transmission Expansion Agreement

I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is James B. Gainer, and my business address is 526 South Church
3 Street, Charlotte, North Carolina 28202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services, LLC, (DEBS) an affiliate
6 service company of Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the
7 Company), as Vice President, Federal Regulatory Policy.

8 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL
9 EXPERIENCE.**

10 A. I earned a Bachelor of Arts degree in English and Political Science from Bowling
11 Green State University in 1982 and a juris doctorate degree from the University of
12 Dayton School of Law in 1985.

13 **Q. PLEASE SUMMARIZE YOUR WORK EXPERIENCE.**

14 A. I was employed in state government with the Office of Attorney General for the
15 state of Ohio, representing the Public Utilities Commission of Ohio from 1985 to
16 1995. In 1995, I left the Attorney General's office and joined the Legal
17 Department of Cinergy Services, Inc., the service company for Cinergy Corp.
18 (Cinergy). I have held several positions of increasing responsibility in the Cinergy
19 Legal Department, including Vice President and General Counsel of Cinergy
20 Regulated Businesses and Vice President, Regulatory and Legislative Strategy.
21 Following the merger of Cinergy and Duke Energy Corporation (Duke Energy) in
22 2006, I was promoted to my current position as Vice President, Federal

1 Regulatory Policy, for DEBS.

2 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE KENTUCKY**
3 **PUBLIC SERVICE COMMISSION?**

4 A. No. I have submitted testimony before the Public Utilities Commission of Ohio but
5 was not called as a witness.

6 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**
7 **PROCEEDING?**

8 A. The purpose of my testimony is to support Duke Energy Kentucky's application to
9 realign its regional transmission organization (RTO) membership, withdrawing
10 from the Midwest Independent Transmission System Operator, Inc. (Midwest
11 ISO) and to joining the PJM Interconnection, L.L.C. (PJM).

12 I will explain the reasons for Duke Energy Kentucky's decision to
13 withdraw at this time and the processes for the withdrawal from the Midwest ISO
14 and joining PJM. I will then explain the anticipated benefits of this realignment
15 and the Company's basis for the estimated costs of this transaction. Finally, I will
16 introduce the other witnesses supporting this application.

17 **II. WITHDRAWAL FROM THE MIDWEST ISO**

18 **Q. PLEASE EXPLAIN WHY DUKE ENERGY KENTUCKY IS SEEKING TO**
19 **WITHDRAW FROM THE MIDWEST ISO AND JOIN PJM.**

20 A. Duke Energy Kentucky is seeking to realign RTO membership for operational
21 efficiencies and because its parent, Duke Energy Ohio, Inc. (Duke Energy Ohio),
22 has elected to leave the Midwest ISO and join PJM. Duke Energy Kentucky owns
limited transmission facilities that are under RTO functional control. Duke

1 Energy Ohio actually owns the vast majority of the 138 kV and above
2 transmission facilities used by Duke Energy Kentucky to serve its load. The only
3 138 kV transmission facilities owned by Duke Energy Kentucky that are at issue
4 in this case consist of eighteen 138 kV “high side” connections, including
5 breakers and switches (138 kV Connections), the functional control of which
6 would be transferred from the Midwest ISO to PJM. These eighteen 138 kV
7 Connections serve as bridges between the Duke Energy Ohio transmission system
8 and the high voltage side of Duke Energy Kentucky’s transformers that serves the
9 Duke Energy Kentucky distribution system. The Company’s transmission and
10 distribution system is not interconnected to any Midwest ISO utility other than
11 Duke Energy Ohio and, consequently, would no longer have a direct point of
12 interconnection to the Midwest ISO once Duke Energy Ohio transfers control of
13 its transmission facilities to PJM. Thus, the RTO realignment will keep outage
14 coordination and related functions for these eighteen 138 kV Connections under
15 the functional control of the same RTO as the Duke Energy Ohio transmission
16 system to which they are tied.

17 **Q. WOULD IT BE POSSIBLE FOR DUKE ENERGY KENTUCKY TO**
18 **REMAIN IN THE MIDWEST ISO EVEN IF DUKE ENERGY OHIO**
19 **JOINS PJM?**

20 A. As more fully explained by Duke Energy Kentucky witness John D. Swez, it
21 would be technically possible for Duke Energy Kentucky to remain in the
22 Midwest ISO even if Duke Energy Ohio leaves, but the potential for operational
23 inefficiencies outweighs any benefit of doing so.

1 The Duke Energy Kentucky generating assets are located within Duke
2 Energy Ohio's transmission service area, which will be located within PJM.
3 Therefore, if Duke Energy Kentucky were to remain in the Midwest ISO, its
4 generating facilities would need to be pseudo-tied from PJM into the Midwest
5 ISO at a cost to Duke Energy Kentucky customers. For operational purposes, the
6 same relationship between Duke Energy Ohio and Duke Energy Kentucky should
7 be maintained when Duke Energy Ohio completes its PJM realignment.
8 Therefore, when Duke Energy Ohio moves to PJM, the Company respectfully
9 submits that it will be in the public interest for Duke Energy Kentucky to move as
10 well to participate fully in the PJM market and to avoid potential inefficiencies,
11 operational complexities, and costs that would be created by introducing a Midwest
12 ISO/PJM seam affecting both Duke Energy Kentucky's generation and its load.

13 **Q. PLEASE EXPLAIN WHY DUKE ENERGY KENTUCKY BECAME A**
14 **MIDWEST ISO MEMBER.**

15 **A.** Duke Energy Kentucky became a Midwest ISO member because of its
16 interconnection with Duke Energy Ohio. Duke Energy Ohio transferred
17 functional control over its entire 138 kV (and higher voltage) transmission,
18 including the transmission facilities located in the Commonwealth of Kentucky, to
19 the Midwest ISO upon becoming a member in 1997. At that time, Duke Energy
20 Kentucky did not own any generation and relied upon energy purchased from
21 Duke Energy Ohio to serve the Company's Kentucky load. Because of its
22 interconnectivity to the Duke Energy Ohio transmission system and its effective
23 status as a transmission dependent utility, Duke Energy Kentucky likewise

1 became a Midwest ISO participant, and the Midwest ISO assumed control over
2 the Company's 138 kV Connections.

3 **Q. ARE ALL OF DUKE ENERGY CORPORATION'S MIDWEST UTILITY**
4 **COMPANIES LEAVING THE MIDWEST ISO?**

5 A. No. Duke Energy Indiana, Inc., the sister utility of Duke Energy Ohio and
6 Kentucky, will continue to be a Midwest ISO member. It is important to
7 understand that Duke Energy Ohio's and Duke Energy Kentucky's respective
8 decisions to realign with PJM are not due to any issue or criticism of the Midwest
9 ISO but for operational purposes. Both PJM and the Midwest ISO are well run
10 organizations that provide many benefits through reliable transmission
11 coordination. It is simply a matter of PJM becoming a better fit for Duke Energy
12 Ohio and the need for Duke Energy Kentucky to follow Duke Energy Ohio to
13 maintain operational efficiencies.

14 **Q. WHY IS DUKE ENERGY OHIO REALIGNING ITS RTO**
15 **MEMBERSHIP?**

16 A. Duke Energy Ohio intends to withdraw from the Midwest ISO and join PJM
17 effective January 1, 2012. This date was chosen because it coincides with the
18 expiration of Duke Energy Ohio's current standard service offer for retail electric
19 generation service, and so will also mark the adoption of its next standard service
20 offer.¹ December 31, 2011, is the earliest date permitted for withdrawal from the
21 Midwest ISO consistent with the notice provisions of the Agreement Of
22 Transmission Facilities Owners To Organize The Midwest Independent

¹ Duke Energy Ohio's standard service offer for generation service known as an electric security plan

1 Transmission System Operator, Inc., A Delaware Non-Stock Corporation (TO
2 Agreement). The terms of the TO Agreement require that a transmission owner's
3 withdrawal will not be effective until December 31 of the calendar year following
4 the calendar year in which notice is given, but no earlier than five years from the
5 date the Owner signed the TO Agreement. Formal withdrawal notice was
6 provided to the Midwest ISO on May 20, 2010. Duke Energy Ohio made the
7 decision to realign its RTO membership and join PJM for several reasons. First,
8 with the recently announced withdrawal of the FirstEnergy Company and
9 accordingly its three utility operating companies from the Midwest ISO and
10 enrollment with PJM, absent realignment, Duke Energy Ohio would be the only
11 remaining Ohio utility with transmission facilities operated by the Midwest ISO.
12 When Duke Energy Ohio does join PJM, the entire state of Ohio will be within
13 one RTO footprint, allowing state regulators to work with a single RTO to ensure
14 reliable and cost-effective service for Ohio. Second, realigning with PJM will
15 place all of Duke Energy Ohio's generation in a single RTO. Duke Energy Ohio
16 owns several gas-fired generating stations that are already in PJM. Additionally,
17 ten of Duke Energy Ohio's coal-fired generating units are co-owned with other
18 Ohio utilities, Dayton Power & Light and American Electric Power, that are
19 currently members of PJM. This move presents many additional benefits for
20 Duke Energy Ohio, including future investment planning and improved
21 efficiencies in Ohio's competitive retail and wholesale markets. Finally, based
22 upon current PJM and Midwest ISO tariffs, PJM currently has lower RTO

(ESP) under Ohio law, was approved as a three-year plan in 2008. The ESP expires under its terms on December 31, 2011.

1 administration fees.

2 **Q. PLEASE EXPLAIN THE PROCESS DUKE ENERGY KENTUCKY WILL**
3 **FOLLOW TO AFFECT THE MIDWEST ISO WITHDRAWAL.**

4 A. While RTO membership is voluntary, membership is also subject to many terms
5 and conditions dictated by the TO Agreement signed with the respective RTO. In
6 the case of the Midwest ISO, withdrawal requires a minimum of one-year advance
7 notification. As I previously mentioned, Duke Energy Kentucky provided this
8 notice to the Midwest ISO on May 20, 2010. There will be two primary financial
9 obligations upon Duke Energy Kentucky withdrawing from the Midwest ISO. As
10 part of the membership agreement, the Midwest ISO will assess an exit fee. And
11 for some period of time to be determined through negotiations with the Midwest
12 ISO, Duke Energy Kentucky will continue to be obligated to pay its allocated
13 portion of the Midwest ISO Transmission Expansion Plan (MTEP) fees for those
14 transmission expansion projects approved when the Company was a member.

15 **Q. WHAT IS MTEP AND WHY IS DUKE ENERGY KENTUCKY**
16 **OBLIGATED TO PAY THOSE COSTS AFTER IT LEAVES THE**
17 **MIDWEST ISO?**

18 A. The MTEP is a long-term annual planning report submitted to the Midwest ISO
19 Board of Directors for approval and subsequent implementation. Upon approval
20 by the Midwest ISO Board, Transmission Owners are required under the terms of
21 the Tariff to complete the approved projects. MTEP includes recommendations
22 for transmission infrastructure additions and electric grid improvements
23 throughout the Midwest. Since its inception in 2003, MTEP plans have

1 recommended almost \$7.2 billion in transmission projects, totaling \$2.7 billion
2 already in operation. MTEP costs are allocated among Midwest ISO members.
3 Duke Energy Kentucky is currently paying MTEP costs as a Midwest ISO
4 member. Under the terms of Midwest ISO TO Agreement, upon withdrawing, a
5 member will remain financially responsible for its share of MTEP costs relating to
6 the construction of new facilities pursuant to an approved plan. The Midwest ISO
7 approved those projects assuming that Duke Energy Kentucky would continue to
8 be a member and it is fair and required contractually for the Company to continue
9 to remain financially obligated for its share of projects undertaken when the
10 Company was a member. Otherwise, remaining members would be faced with
11 higher costs due to a reallocation. The Federal Energy Regulatory Commission
12 (FERC) has upheld this process.

13 **Q. WHAT ARE DUKE ENERGY KENTUCKY'S ANTICIPATED COSTS**
14 **FOR THE EXIT FEE AND THE MTEP OBLIGATION UPON LEAVING**
15 **THE MIDWEST ISO?**

16 A. The actual amount of the exit fee and the MTEP obligation will be determined
17 through negotiations with the Midwest ISO. Those discussions are in the very
18 early stages and a final number is not yet known. Although the precise dollar
19 impact of Duke Energy Kentucky's withdrawal from the Midwest ISO is still to
20 be determined, based upon fee determinations in recent similar RTO withdrawals
21 in other jurisdictions,² Duke Energy Kentucky roughly estimates that its share of

² *In the matter of the Application of Ohio Edison Company, The Cleveland Electric Illuminating Company, and The Toledo Edison Company for Authority to Establish a Standard Service Offer Pursuant To R.C. § 4928.143 in the Form of an Electric Security Plan*, Case No. 10-388-EL-SSO, (Attachment WRR-1, line 12 of the Direct Testimony of William R. Ridmann) (Filed March 31, 2010); estimating FirstEnergy's Midwest

1 the assessed Midwest ISO costs, exit fee and MTEP, upon leaving will be
2 approximately \$11-\$13 million. As I mentioned, the FirstEnergy Company is
3 currently in the process of realigning its RTO membership, withdrawing from the
4 Midwest ISO and joining PJM. It is much farther along in that process than either
5 Duke Energy Ohio or Duke Energy Kentucky. The FirstEnergy Company is
6 estimating its exit fee to be approximately \$39.7 million. Together, Duke Energy
7 Ohio and Duke Energy Kentucky are about half of the size of the combined
8 FirstEnergy utilities in Ohio. Duke Energy estimates the exit fee for its two
9 utilities will be proportional. MTEP costs are estimated based upon the number
10 of projects currently underway at the Midwest ISO and what will likely be
11 approved by the time the Company leaves the RTO.

12 Duke Energy Ohio and Duke Energy Kentucky are estimating the total
13 cost for the exit fee and MTEP obligation to be approximately \$77 million. Based
14 upon initial analysis, Duke Energy Kentucky estimates its pro rata share of the
15 exit fees to be approximately 15-17% of the total amount to be assessed to the two
16 companies. This is based upon Duke Energy Kentucky's percent of total load
17 between the two companies and is consistent with how other costs have been
18 allocated between the two companies.

III. MEMBERSHIP IN PJM

19 **Q. PLEASE DESCRIBE THE BENEFITS OF DUKE ENERGY**
20 **KENTUCKY'S MOVE TO PJM.**

21 **A.** Following Duke Energy Ohio to PJM will provide benefits and efficiencies to

ISO Exit Fees to be \$39.7 million.

1 Duke Energy Kentucky and its customers. As I mentioned, once Duke Energy
2 Ohio moves from the Midwest ISO to PJM, Duke Energy Kentucky's generation,
3 located in Ohio and Kentucky and attached to and dependent upon Duke Energy
4 Ohio's transmission delivery system, will be in PJM regardless of whether Duke
5 Energy Kentucky moves to PJM. Consequently, unless Duke Energy Kentucky
6 also moves to PJM, the Company's generation will be in PJM but its load will be
7 in the Midwest ISO, creating potential inefficiencies and additional costs to serve
8 load. PJM's transparent capacity market should also facilitate off-system sales of
9 capacity or, in the event that the Company requires additional capacity in the
10 future, allow for the purchase of capacity through a monitored market. Finally, as
11 the capacity market for the PJM market is forward looking, the Company, and in
12 turn customers, are afforded a greater level of certainty with regard to future
13 capacity prices.

14 **Q. WHAT IS THE PROCESS FOR DUKE ENERGY KENTUCKY JOINING**
15 **PJM?**

16 A. Approval to withdraw from the Midwest ISO and to join PJM must be obtained
17 from the FERC through multiple filings. There are several agreements that must
18 be signed to join PJM. Duke Energy Kentucky must first sign the Agreement To
19 Implement Expansion of PJM, a transmission expansion integration agreement
20 with PJM. The integration agreement includes a project implementation plan to
21 accommodate the integration of transmission facilities into PJM and the timing
22 and amount of costs to be paid to PJM for the services provided. This
23 integration agreement is the commitment that the companies, pending regulatory

1 approval, will join PJM and agree to follow all the terms and conditions of
2 membership. The agreement was signed on June 11, 2010. A copy of the
3 executed agreement is included as Attachment JBG-1. Upon signing the
4 agreement, the companies were required to pay a fee to cover PJM's integration
5 costs. The total fee is estimated to be approximately \$3 million, of which
6 \$700,000 has already been paid. PJM will then conduct a deliverability study and
7 a load forecasting study to determine the reliability requirement for Duke Energy
8 Kentucky. Duke Energy Kentucky must also sign a PJM Reliability Assurance
9 Agreement (RAA),³ the PJM Consolidated Transmission Owners Agreement
10 (PJM TO Agreement)⁴ and finally the PJM Operating Agreement. These steps
11 will result in operation of Duke Energy Ohio and Duke Energy Kentucky's
12 transmission facilities under the PJM open access transmission tariff, thereby
13 meeting the requirement to provide for replacement transmission arrangements
14 that are consistent with FERC Order Nos. 888 and 890.

15 The anticipated effective date for joining PJM is January 1, 2012. Duke
16 Energy Kentucky will be assessed a portion of the PJM regional transmission
17 expansion planning process (RTEPP) costs for projects currently underway.

18 **Q. WILL THERE BE ANY IMMEDIATE IMPACTS ON DUKE ENERGY**
19 **KENTUCKY'S RATES AS A RESULT OF THIS RTO REALIGNMENT?**

20 A. No. As explained in the Direct Testimony of Duke Energy Kentucky witness
21 William Don Wathen Jr., Duke Energy Kentucky is committing in this proceeding
22 that it will not attempt to recover through base rates or an adjustment mechanism,

³ PJM RAA, Rate Schedule FERC No. 44.

1 the costs associated with the Midwest ISO exit fee or double recovery of
2 overlapping transmission expansion costs (MTEP and RTEPP) for the same time
3 period associated with the timing issue between the Midwest ISO and PJM
4 allocations. Customers will be held harmless for those costs. The Company will
5 address any RTO participation costs, including but not limited to annual fees,
6 recoverable transmission expansion, and other participation costs and credits, as it
7 always has, through an electric rate case in the context of a test year.

8 **Q. WILL THERE BE ANY IMPACT UPON RELIABILITY WHEN DUKE**
9 **ENERGY KENTUCKY WITHDRAWS FROM THE MIDWEST ISO AND**
10 **JOINS PJM?**

11 A. No. The RTO realignment will not adversely affect the Company's reliability.
12 Both the Midwest ISO and PJM have proven track records for operating reliable
13 transmission systems in the Commonwealth of Kentucky. PJM has a long history
14 of success in coordinating the movement of wholesale electricity. In 1997, PJM
15 became the first fully functioning Independent System Operator approved by the
16 FERC. In 2002, PJM became the nation's first fully functioning RTO. PJM has
17 been coordinating transmission in Kentucky since 2004 when American Electric
18 Power became a member. Moreover, keeping Duke Energy Kentucky in the same
19 RTO as Duke Energy Ohio will keep coordination of outages on Duke Energy
20 Kentucky's 138 kV Connections under the control of the RTO that will control
21 the appurtenant transmission system. Duke Energy Kentucky will continue to
22 be bound by NERC's Reliability Standards, albeit with some minor changes, and

⁴ PJM TO Agreement, Rate Schedule FERC No. 42.

1 will continue to operate within the Reliability *First* region. The primary changes
2 will involve PJM becoming (i) the Transmission Operator for the transmission
3 facilities in the Duke Energy Ohio and Duke Energy Kentucky footprints, and (ii)
4 the exclusive registrant for Balancing Authority, Transmission Planner and
5 Resource Planner for the Duke Energy Ohio and Duke Energy Kentucky
6 footprints (whereas today the Midwest ISO and Duke Energy are registered for
7 these responsibilities within the Duke Energy Ohio and Duke Energy Kentucky
8 footprints).

IV. INTRODUCTION OF WITNESSES

9 **Q. PLEASE IDENTIFY THE OTHER WITNESSES SUPPORTING THE**
10 **COMPANY'S APPLICATION IN THIS PROCEEDING.**

11 A. To support its application, Duke Energy Kentucky submits the following
12 witnesses to address the specific issues identified in the Commission's June 24,
13 2010 Order:

- 14 1. William Don Wathen Jr., Vice President Rates Ohio/ Kentucky will
15 discuss the Company's commitments not to seek recovery of exit fees or
16 double recovery of RTEPP and MTEP costs for overlapping periods. Mr.
17 Wathen will also explain how Duke Energy Kentucky will determine the
18 level of RTEPP or MTEP costs that will be recoverable in a future period;
- 19 2. John D. Swez, Director of Generation Dispatch and Operations, will
20 discuss: 1.) Duke Energy Kentucky's current operation as a Midwest ISO
21 member; 2.) Duke Energy Kentucky's operation in PJM; 3.) the impact of
22 the RTO realignment on Duke Energy Kentucky's generation irrespective

1 of the RTO in which Duke Energy Ohio may reside; 4.) the potential
2 benefits of the RTO realignment to Duke Energy Kentucky and its
3 customers; and 5.) the amount and basis of the cost of integration and the
4 amount and basis of the PJM annual membership and administrative fees;
5 and

6 3. Kenneth J. Jennings, Director of Market and RTO Services, based upon
7 his experience in Duke Energy Ohio's commercial enterprise, will discuss
8 how the PJM capacity market operates and the potential benefits of the
9 market.

V. CONCLUSION

10 **Q. DO YOU BELIEVE DUKE ENERGY KENTUCKY'S WITHDRAWAL**
11 **FROM THE MIDWEST ISO AND REALIGNMENT WITH PJM IS FOR A**
12 **PROPER PURPOSE AND IN THE PUBLIC INTEREST?**

13 A. Yes. As explained above, Duke Energy Ohio is leaving the Midwest ISO and is
14 joining PJM. Duke Energy Kentucky, by the nature of its relationship with Duke
15 Energy Ohio and its interconnectedness to Duke Energy Ohio's 138 kV and above
16 transmission system, needs to move as well. Once Duke Energy Ohio made its
17 decision to realign, the decision for Duke Energy Kentucky became simple. It
18 was not a matter of determining whether PJM is better than the Midwest ISO.
19 Both RTOs are well run and provide many advantages. Duke Energy Kentucky's
20 decision was a matter of which RTO scenario is a better fit given Duke Energy
21 Kentucky's unique operational characteristics and reliance upon Duke Energy
22 Ohio's bulk transmission facilities. As explained by Mr. Swez, realigning to PJM

1 with Duke Energy Ohio became the better choice for Duke Energy Kentucky from
2 an operational perspective as it allowed for continued internal operational
3 efficiencies and prevented the creation of an RTO seam between the Company's
4 generation and its load. Therefore, I believe the proposed realignment is for a
5 proper purpose. Because of the associated benefits of PJM through a defined
6 forward-looking capacity market, a comparable energy market, the lower
7 administrative costs, and efficiencies created by aligning Duke Energy Kentucky's
8 co-owned generation into a single RTO, coupled with the Company's
9 commitment to hold customers harmless from exit fees and promise not to recover
10 overlapping transmission expansion projects for the same periods, I also believe
11 the proposed move is in the public interest.

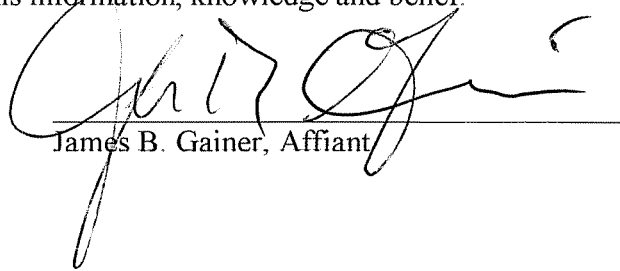
12 **Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?**

A. Yes.

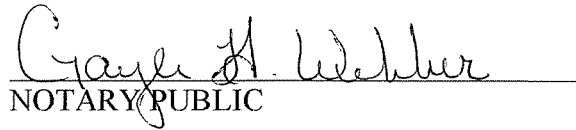
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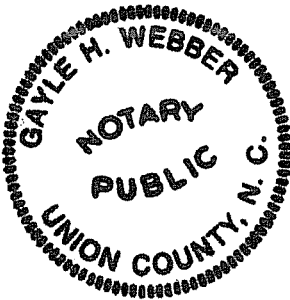
State of North Carolina)
) SS:
County of Mecklenburg)

The undersigned, James B. Gainer, being duly sworn, deposes and says that he is the Vice President, Federal Regulatory Policy of Duke Energy Business Services, LLC., that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.


James B. Gainer, Affiant

Subscribed and sworn to before me by James B. Gainer on this 28th day of June, 2010.


NOTARY PUBLIC



My Commission Expires: 09/13/11

**AGREEMENT TO IMPLEMENT EXPANSION OF PJM REGION
FOR DUKE ENERGY OHIO AND DUKE ENERGY KENTUCKY**

This Agreement To Implement Expansion Of PJM Region For Duke Energy Ohio, Inc. and Duke Energy Kentucky, Inc. ("Implementation Agreement"), dated June 11, 2010, by and between,

Duke Energy Ohio, Inc. and Duke Energy Kentucky, Inc. (collectively "Transmission Owner"); and

PJM Interconnection, L.L.C. ("PJM"), a limited liability company organized under the laws of Delaware

(Each a "Party" and together, "Parties").

Whereas, Transmission Owner owns electric transmission facilities which form an integrated transmission system used to provide electric service to its retail customers and to provide open access transmission service pursuant to requirements of the FERC;

Whereas, PJM is the regional transmission organization ("RTO") comprised of interconnected electric transmission systems in all or parts of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, North Carolina and the District of Columbia.

Whereas, PJM is the transmission provider under, and the administrator of, the PJM Tariff, operates the PJM Interchange Energy Market and Reliability Pricing Model, administers the Regional Transmission Expansion Planning Process ("RTEPP"), and controls the day-to-day operations of the bulk power system of the PJM Region;

Whereas, subject to the terms and conditions of the Transmission Owners Agreement, Operating Agreement, the PJM Tariff, and the Reliability Assurance Agreement, all as defined herein, and subject to any required regulatory approvals of such amendments, Duke Energy Kentucky, Inc. has elected to become a member of PJM, transfer functional control of its transmission facilities to PJM for inclusion in the PJM Region, integrate its control area into the PJM Interchange Energy Market and other PJM markets, and otherwise facilitate the establishment and operation of PJM as the ISO, RTO and transmission provider with respect to its Transmission Facilities as contemplated by this Implementation Agreement;

Whereas, subject to the terms and conditions of the Transmission Owners Agreement, Operating Agreement, the PJM Tariff, and the Reliability Assurance Agreement, all as defined herein, and subject to any required regulatory approvals of such amendments, Duke Energy Ohio, Inc., already a member of PJM, has elected to transfer functional control of its transmission facilities to PJM for inclusion in the PJM Region, integrate its control area into the PJM Interchange Energy Market and other

PJM markets, and otherwise facilitate the establishment and operation of PJM as the ISO, RTO and transmission provider with respect to its Transmission Facilities as contemplated by this Implementation Agreement;

Whereas, in order to accept functional control of the Transmission Facilities and commensurately expand the PJM markets, PJM will be required to make additions and modifications to its systems and facilities and thereby incur Expansion Costs, as defined herein; and

Whereas, the Parties accordingly enter into this Implementation Agreement to provide for the payment of Expansion Costs to PJM and to develop a project implementation plan to accommodate the integration of the Transmission Owner's transmission facilities into PJM.

NOW THEREFORE, in consideration of the covenants and agreements set forth herein, and intending to be legally bound thereby, and for other good and valuable consideration the receipt and adequacy of which is hereby acknowledged, the Parties agree as follows:

ARTICLE 1 GLOSSARY AND RULES OF CONSTRUCTION

Unless the context otherwise specifies or requires, capitalized terms used in this Implementation Agreement shall have the meanings assigned or referred to in this Article 1 (such definitions to be equally applicable to both the singular and the plural forms of the terms defined). Unless otherwise specified, all references to articles or sections are to articles or sections of this Implementation Agreement. Exhibits and schedules referred to in this Implementation Agreement are incorporated herein and made a part hereof. As both Parties have been involved in the drafting of this Implementation Agreement and represented by competent counsel, no rule that a contract shall be construed against the drafter shall be applied to the construction or interpretation of this Implementation Agreement.

1.1 "Capitalized Expansion Costs" shall have the meaning stated in section 4.1.3.

1.2 "Completion Date" shall mean the earliest date on which both of the following conditions have occurred: (1) PJM has commenced to serve as the transmission provider under the PJM Tariff with respect to the Transmission Facilities and (2) PJM has commenced to perform all functions allocated to PJM under section 3.2.1 in the Control Area of Transmission Owner.

1.3 "Control Area" shall have the meaning stated in section 1.7 of the Operating Agreement.

1.4 "Directly Assigned Expansion Costs" shall have the meaning stated in section 4.1.4.

1.5 “Effective Date” of this Implementation Agreement shall be as provided in section 2.1.

1.6 “Expansion Costs” shall have the meaning stated in section 4.1.1.

1.7 “FERC” shall mean the Federal Energy Regulatory Commission or any successor federal agency, commission or department exercising jurisdiction over the PJM Tariff, Transmission Owners Agreement, Operating Agreement, or the Reliability Assurance Agreement.

1.9 “Interim Expansion Expenses” shall have the meaning stated in section 4.1.5.1.

1.9 “ISO” shall mean Independent System Operator as that term is defined by the FERC.

1.10 “Operating Agreement” shall mean the Amended and Restated Operating Agreement of PJM Interconnection, L.L.C., as in effect and which may be amended from time to time.

1.11 “Party” or “Parties” shall have the meaning stated in the preamble.

1.12 “PJM Tariff” shall mean the PJM Open Access Transmission Tariff providing transmission and other related services within the PJM Region, including any schedules, appendices, attachments, charts, annexes, or exhibits attached thereto, as in effect and which may be amended from time to time.

1.13 “PJM Region” shall mean the aggregate of the Control Areas recognized by the North American Electric Reliability Council.

1.14 “Project Implementation Plan” shall have the meaning stated in section 3.2.5.

1.15 “Reliability Assurance Agreement” shall mean the PJM Reliability Assurance Agreement Among Load-Serving Entities in the PJM Region as in effect and which may be amended from time to time.

1.16 “RTO” shall mean Regional Transmission Organization as that term is defined by the FERC.

1.17 “Transmission Facilities” shall have the meaning stated in section 1.44 of the Operating Agreement.

1.18 “Transmission Owners Agreement” shall mean the Consolidated Transmission Owners Agreement (Rate Schedule FERC No. 42) among PJM and Certain Owners of Electric Transmission Facilities, as may be amended from time to time.

ARTICLE 2 EFFECTIVE DATE

2.1 Effective Date Not Subject to Regulatory Approval. The Effective Date of this Implementation Agreement shall occur upon execution by the Parties and shall not be conditioned upon whether regulatory approval of this Implementation Agreement is sought or obtained. Transmission Owner shall fulfill its payment obligations under this Implementation Agreement without regard to whether any regulatory authority has asserted jurisdiction over the Implementation Agreement or approved, disapproved, or conditioned, any provision of this Implementation Agreement, or any other agreement related to the establishment of PJM as the RTO for the Transmission Facilities.

ARTICLE 3 PARTIES' UNDERTAKINGS IN FURTHERANCE OF EXPANSION OF PJM REGION

3.1 Undertakings to Execute Agreements and Seek Regulatory Approvals from the FERC.

3.1.1 Upon obtaining any and all necessary regulatory approvals on the terms and conditions described in the Transmission Owner's application for the same from the FERC Transmission Owner shall execute, in a manner consistent with such approvals, the Consolidated Transmission Owners Agreement, Operating Agreement and Reliability Assurance Agreement.

3.1.2 It is agreed that in order for Transmission Owner to transfer functional control of its Transmission Facilities to PJM for inclusion in the PJM Region, integrate its Control Area into the PJM Interchange Energy Market and other PJM markets, and otherwise facilitate the establishment and operation of PJM as the RTO with respect to its Transmission Facilities, it will be necessary to amend the following documents: (a) Consolidated Transmission Owners Agreement; (b) Reliability Assurance Agreement; (c) Operating Agreement; and (d) PJM Tariff. PJM and Transmission Owner, in the context of PJM's stakeholder review process, shall negotiate in good faith all such amendments. Promptly upon agreement to such amendments, the Parties shall make good faith efforts to initiate and, subject to section 3.1.3, pursue diligently, all proceedings necessary and appropriate to seek and obtain all regulatory approvals required from the FERC of all such amendments, of the transfer of functional control of the Transmission Facilities to PJM, and of Interim Operating Expenses (see section 4.1.5). The filings to initiate and prosecute such proceedings shall be initiated on or before July 1, 2011, and shall be joint except as provided in section 3.1.3.

3.1.3 Transmission Owner shall have sole responsibility for obtaining regulatory approval of amendments to the PJM Tariff that provide for Transmission Owner's transmission rates and/or revenue requirements with respect to service provided on the Transmission Facilities. Additionally, Transmission Owner shall have

sole responsibility to ensure its transmission rates comply with applicable FERC orders and PJM shall not oppose Transmission Owner's filings with respect to such rates.

3.1.4 If, in accepting amendments submitted for approval under section 3.1.2, or related agreements or filings in furtherance of PJM's service as the RTO for the Transmission Facilities, the FERC rejects, modifies or conditions its acceptance of such amendments, agreements or filings, within thirty (30) days of the FERC order rejecting, modifying or otherwise imposing such conditions, the Parties shall either: (1) notify the FERC and each other of their acceptance of any such modification or condition; (2) negotiate with FERC on mutually agreeable terms for the amendment, agreement or filing; or (3) enter into and complete discussions to determine whether the amendment, agreement or filing would be mutually beneficial in light of the FERC's action. If a Party shall determine that the amendment, agreement or filing would not be beneficial, the amendment, agreement, or other filing shall become null and void, provided, that nothing in this section shall diminish Transmission Owner's obligation to pay all amounts otherwise due to PJM under this Implementation Agreement.

3.2 Undertakings to Exercise Functional Control Over the Transmission Facilities and Integrate the PJM Markets Into the Transmission Owner Control Area.

3.2.1 "Transmission Owner Expansion" shall mean the upgrade, expansion, modification, development, design, or acquisition by PJM of any new or existing hardware, software, systems, or facilities of PJM of any kind or description, or any other work required or appropriate to be performed as more specifically set forth in the Project Implementation Plan; *provided however*, that the Parties acknowledge and agree that the internal timing milestones described in the Project Implementation Plan provide guidance and estimates based on present assumptions relating to the Transmission Owner Expansion and should not be construed as firm obligations on the part of PJM; *provided further however*, that PJM shall nonetheless remain obligated to use best efforts, as described in section 3.2.5, to meet the January 1, 2012 deadline. PJM shall serve as the RTO for the Transmission Facilities and administer the PJM markets to include Transmission Owner's Control Area. By way of further explanation, and not in qualification of the above, Transmission Owner Expansion shall not include any upgrade, expansion, modification, development, design, acquisition, or other work in furtherance of expansion of the PJM Region to include the transmission facilities of any entity not a Party to this Agreement or any other development or expansion of PJM. The foregoing notwithstanding, the Parties recognize and agree that if PJM incurs expenses to implement Transmission Owner Expansion, which expenses are attributable to some further expansion of PJM Region proceeding concurrently with the Transmission Owner Expansion, then PJM shall allocate such expenses between Expansion Costs hereunder and such other Control Areas or regions, as applicable, on the basis of the ratio of the total load of Transmission Owner to the total loads of the other Control Areas or regions benefiting from the common tasks.

3.2.2 Expansion Goals. Upon completion of Transmission Owner Expansion, PJM agrees to exercise functional control over the Transmission Facilities

and to fully integrate the PJM markets into the Control Area of Transmission Owner. PJM shall make good faith efforts to achieve such functionality in accordance with the goals stated in the Project Implementation Plan as defined in Section 3.2.5.

3.2.3 PJM Staffing. Nothing in this Implementation Agreement shall require that PJM (a) increase internal staffing to perform Transmission Owner Expansion or (b) allocate staff in a manner that PJM determines may jeopardize its ability to meet its obligations as the RTO for any Control Area where it serves in such capacity.

3.2.4 Designees for Contract Administration. By Notice, each Party shall designate in writing an individual who shall have the primary responsibility of administering responsibilities under this Implementation Agreement and shall designate an alternate to perform such responsibilities in the event the primary designee is unavailable (the primary or alternate designee, as applicable, is referred to as the "Project Designee"). A Party may change its designations by Notice.

3.2.5 "Project Implementation Plan" shall mean the plan for a timeline for Transmission Owner Expansion attached hereto as Schedule 3.2.5 or as amended by the Parties from time to time in accordance with this section. It is recognized that PJM may reasonably determine, from time to time, that changes to the Project Implementation Plan are necessary or appropriate to achieve economies, efficiencies, or the success the Transmission Owner Expansion or other PJM projects. In such event, PJM shall give Notice to Transmission Owner of the change and the Parties shall in good faith negotiate amendments to the Project Implementation Plan, provided, that Transmission Owner shall not unreasonably withhold consent to reasonable changes to the Project Implementation Plan proposed by PJM, and provided further, that nothing in this section shall override the rights of Transmission Owner under section 4.2. Furthermore, it is recognized by PJM that Transmission Owner requires full integration into PJM by the first clock minute of January 1, 2012, that the Project Implementation Plan will be structured, and PJM will use best efforts, to meet that goal. Except as otherwise expressly stated herein, the Project Implementation Plan shall be modified only if agreed to by the Parties.

3.2.6 PJM Requests for Information. Transmission Owner shall respond, at its own cost, with a full and timely good faith effort to all reasonable requests for information or technical support made by PJM from time to time to facilitate Transmission Owner Expansion.

3.2.7 Financing Condition. It is understood that subject to reimbursement (see section 4.1.2.2), PJM will be required to make initial expenditures to cover Capitalized Expansion Costs as defined herein (see section 4.1.2) and it is further understood that PJM may lack capital necessary to make such expenditures. It is agreed, therefore, that PJM shall not be required to incur Capitalized Expansion Costs until and unless PJM has closed transactions necessary to obtain all required financing for Capitalized Expansion Costs in a total amount no less than specified in section 4.1.2.1. PJM agrees to use reasonable best efforts to secure such financing.

ARTICLE 4 ALLOCATION AND PAYMENT OF EXPANSION COSTS

4.1 Definitions and Certain Payment Obligations.

4.1.1 "Expansion Costs" are all costs and expenses PJM incurs from the Effective Date of this Implementation Agreement through thirty (30) days after the Completion Date in order to perform Transmission Owner Expansion, including the costs of vendors, consultants, independent contractors, PJM employees (including allocable compensation and general and administrative overhead) attributable to Transmission Owner Expansion. In the event Transmission Owner gives Notice under section 5.2 or section 5.3.1 or otherwise does not transfer control of Transmission Facilities to PJM, Expansion Costs shall also include any reasonable suspension, termination and demobilization costs and expenses incurred. PJM will take commercially reasonable measures to mitigate any suspension, termination and demobilization costs.

Expansion Costs consist of the following cost categories:

Capitalized Expansion Costs (see section 4.1.2)

Directly Assigned Expansion Costs (see section 4.1.3)

Interim Expansion Expenses (see section 4.1.4)

Suspension, termination and demobilization costs and expenses (if any)

The Parties expect that most Expansion Costs will be incurred by PJM and recovered by PJM under sections 4.1.2.2, 4.1.3.2 and 4.1.4.2 of this Implementation Agreement, and that Transmission Owner will directly incur only relatively minor additional costs, such as telecom system upgrades and any such similar costs. The Parties recognize that the cost recovery provisions of this Implementation Agreement will minimize PJM's carrying costs for Interim Expansion Expenses. The Parties agree that carrying costs for Capitalized Expansion Costs will be expensed and that, subject to section 5.4, PJM will recover Capitalized Expansion Costs as described in section 4.1.2.2. To the extent that PJM incurs common costs or expenses for expansion on common tasks applicable to PJM expansion into any other Control Areas, PJM shall allocate such costs between Expansion Costs hereunder and such other Control Areas or regions, as applicable, on the basis of the ratio of the total load of Transmission Owner to the total loads of the other Control Areas or regions benefiting from the common tasks.

4.1.2 Capitalized Expansion Costs.

4.1.2.1 "Capitalized Expansion Costs" shall mean all Expansion Costs that are properly capitalized by PJM according to Generally Accepted Accounting Principles ("GAAP"), excluding any such costs that are Directly Assigned

Expansion Costs. As of the Effective Date of this Implementation Agreement, the Parties estimate that Capitalized Expansion Costs, excluding any suspension, termination and demobilization costs and expenses, will be \$900,000.

4.1.2.2 PJM Recovery of Capitalized Expansion Costs.

Subject to section 5.3.2, PJM shall recover Capitalized Expansion Costs from users of PJM services under Schedule 9 of the PJM Tariff.

4.1.3 Directly Assigned Expansion Costs.

4.1.3.1 "Directly Assigned Expansion Costs" are: all Expansion Costs PJM incurs to conform Transmission Owner's internal systems with PJM's technology and communications requirements, and for PJM to establish telecommunication links with Transmission Owner. As of the Effective Date of this Implementation Agreement, the Parties estimate that Directly Assigned Expansion Costs, excluding any suspension, termination and demobilization costs and expenses, will be \$2,050,000.

4.1.3.2 Payment of Directly Assigned Expansion Costs.

Transmission Owner agrees to fund all applicable Directly Assigned Expansion Costs in accordance with the procedures set forth in sections 4.4.1 and 4.4.2.

4.1.4 Interim Expansion Expenses.

4.1.4.1 "Interim Expansion Expenses" are all Expansion Costs that are properly expensed by PJM according to GAAP, and any carrying costs (including actual or implicit costs of funds), excluding any such costs that are Directly Assigned Expansion Costs. As of the Effective Date of this Implementation Agreement, the Parties estimate that Interim Expansion Expenses will be \$50,000.

4.1.4.2 Payment of Interim Expansion Expenses.

Transmission Owner agrees to fund Interim Expansion Expenses in accordance with the procedures set forth in sections 4.4.1 and 4.4.2.

4.2 Provision of Certain Expansion Costs Estimates. As of the Effective Date of this Implementation Agreement, the Parties estimate that total Expansion Costs will be \$3,000,000, excluding any suspension, termination and demobilization costs and expenses. In the event PJM incurs or expects to incur Expansion Costs (subject to these exclusions) that exceed this estimate by more than twenty percent (20%), it shall notify Transmission Owner and, without in any way limiting the applicability of Article 5, Transmission Owner may withdraw from Transmission Owner Expansion. In the event Transmission Owner withdraws under this provision, section 5.3.2 shall apply.

4.3 Cost Records and Inspection of Books of Account. PJM shall create and maintain records pertaining to all amounts it is entitled to recover under this Implementation Agreement, including records pertaining to Transmission Owner Expansion and the performance of all tasks performed hereunder and all payments

made to vendors, subcontractors or any other third parties hereunder. Transmission Owner shall have the right, upon 48-hour Notice, to inspect such records at the PJM corporate office during PJM's customary business hours. In the event Transmission Owner determines in good faith that an expenditure attributed to Transmission Owner Expansion should not be so attributed, Transmission Owner shall pay the entire amount specified in the invoice within such sixty (60) day period and may seek recovery of the disputed amount under the dispute resolution procedures set forth in Article 6.

4.4. Deposit and Billing Procedures.

4.4.1 Within three (3) business days after the Effective Date of this Implementation Agreement, Transmission Owner shall pay PJM a deposit equal to the total of \$700,000. PJM shall draw payments from deposited funds in accordance with the billing and payment procedures set forth in section 4.4.2. On the tenth business day of each month thereafter, and until the Completion Date, PJM shall provide Transmission Owner with a written forecast of Directly Assigned Expansion Costs and Interim Expansion Expenses to be incurred during the three-month period commencing with the following month. On or after the date when the FERC issues the regulatory approval described in section 3.1.1 hereof, and in accordance with the billing and payment procedures set forth in section 4.4.2, Transmission Owner shall deposit with PJM such additional funds as are necessary such that the total amount of funds deposited with PJM equals \$700,000 until such point when PJM's most recent written forecast delivered pursuant to the immediately preceding sentence is less than that \$700,000, at which time the deposit obligation shall be reduced to an amount that is equal to the written forecast. After the Completion Date, and after all obligations under sections 4.1.4.2 and 4.1.5.2 have been satisfied, PJM shall refund to Transmission Owner any remaining funds on deposit with PJM, if any.

4.4.2 On the 10th day of each month (or, if such day falls on a Saturday, Sunday, or holiday, on the next business day), PJM shall issue monthly billing statements to Transmission Owner for Directly Assigned Expansion Costs under section 4.1.4.2 and Interim Expansion Expenses under section 4.1.5.2, and PJM shall deduct such amounts from Transmission Owner's funds on deposit under section 4.4.1 to the extent available. Such statements shall set forth: (a) any additional payments required that were not covered by deposited funds; (b) any additional funds required to be deposited under section 4.4.1; (c) an itemization of the costs and expenses incurred; and (d) an estimate of the remaining Expansion Costs. Transmission Owner shall make payment no later than the 20th day of the same month, or if such day falls on a Saturday, Sunday, or holiday, on the next business day.

**ARTICLE 5
LIMITATIONS ON AND PAYMENT
OBLIGATIONS IN THE EVENT OF WITHDRAWAL**

5.1 Withdrawal; Unconditional Character of Payment Obligations.

5.1.1 Limitation on Withdrawal. Except as provided under this Article 5 and in section 4.2, neither Party shall withdraw from this Implementation Agreement after the Effective Date.

5.1.2 Payment Obligation. Neither the failure of Transmission Owner to transfer control of the Transmission Facilities to PJM, nor any withdrawal by Transmission Owner from Transmission Owner Expansion, nor any subsequent withdrawal of the Transmission Facilities from PJM shall excuse or diminish Transmission Owner's obligation to pay all reasonably incurred Expansion Costs under this Implementation Agreement, except as may be provided in this Article 5. By way of example, but not limitation, the following events shall not excuse or diminish such payment obligations: (a) a failure by Transmission Owner to meet any obligation under sections 3.1.1, 3.1.2, 3.1.3, or 3.1.4; (b) any action or inaction by the FERC, the Public Utilities Commission of Ohio, the Kentucky Public Service Commission, or any other regulatory agency that has the effect of denying or failing to grant any required regulatory approval; (c) any change in law or regulation that reduces or eliminates any regulatory basis or incentive for such transfer of control of the Transmission Facilities to, or retention of control of the Transmission Facilities by, an ISO or RTO; (d) any decision to transfer control, or seek to transfer control, of the Transmission Facilities to an ISO, RTO, other than PJM or an organization other than PJM that seeks or intends to seek approval from the FERC to serve as an ISO, RTO, or Independent Transmission Provider; or (e) any order of the FERC approving withdrawal of Transmission Owner from this Implementation Agreement or the withdrawal of any other owner of transmission facilities from PJM in any region.

5.2 Suspension for Regulatory Delay. In the event that on or before **January 1, 2011**, the FERC has not issued an initial order concerning approval of the terms and conditions described in the Transmission Owner's application for authorization to transfer of functional control of the Transmission Facilities to PJM required to effect the integration of Transmission Owner into the PJM Region, and Transmission Owner reasonably believes that such approval is not expected to be forthcoming within a reasonable time as will permit integration on the requested terms, then by Notice to PJM, Transmission Owner may suspend Transmission Owner Expansion. In the event of such suspension, Transmission Owner shall compensate PJM for all reasonable documented costs of suspension, including demobilization costs and expenses, and costs, expenses, and penalties incurred in terminating or suspending contracts with consultants, landlords, vendors, and employees. PJM will take commercially reasonable measures to mitigate any suspension, termination and demobilization costs. During Transmission Owner Expansion, PJM will respond to reasonable requests from Transmission Owner for estimates of the costs of suspension

that would be due under this section if such suspension were invoked under this section.

5.3 Obligations of Transmission Owner if Transmission Owner Does Not Transfer Control of the Transmission Facilities to PJM or Withdraws from PJM.

5.3.1 Notice; Termination of Region Expansion. If Transmission Owner determines that there is a material possibility that it will not transfer control of the Transmission Facilities to PJM under the Operating Agreement and Transmission Owners Agreement, such that PJM will not serve as the RTO with respect to such Transmission Facilities, Transmission Owner shall give Notice to PJM pursuant to section 7.8 as soon as reasonably practicable. Upon receipt of such Notice, PJM and Transmission Owner shall confer and, unless Transmission Owner and PJM agree in writing that Transmission Owner Expansion shall continue, PJM shall immediately commence termination of such Transmission Owner Expansion, including demobilization and giving notice of termination or other applicable notice under contracts with third parties. In the event Transmission Owner fails to give Notice under this section, PJM shall not be expected to terminate Transmission Owner Expansion regardless of whether or not PJM is aware of any event or occurrence or circumstance giving rise to the right to give Notice, and PJM may continue Transmission Owner Expansion at Transmission Owner's cost under this Implementation Agreement until Notice is given under this section.

5.3.2 Transmission Owner's Obligation to Reimburse PJM for Expansion Costs If Transmission Owner Does Not Transfer Control of the Transmission Facilities. In the event Transmission Owner gives Notice to PJM under section 5.3.1, withdraws under section 4.2 or otherwise does not transfer control of Transmission Facilities to PJM, then Transmission Owner shall pay PJM its unpaid Directly Assigned Expansion Costs, unpaid Interim Expansion Expenses, and Capitalized Expansion Costs incurred by PJM and calculated in accordance with Article 4. Reimbursement shall be made first from any amounts on deposit with PJM under section 4.3.1 of this Implementation Agreement, and the balance shall be paid to PJM no later than sixty (60) days after PJM issues an invoice therefor, which invoice shall include an itemization of all applicable Expansion Costs incurred through the date of such notice. In the event Transmission Owner disputes the amount stated in PJM's invoice, Transmission Owner shall pay the entire amount specified in the invoice within such sixty (60) day period and may seek recovery of the disputed amount under the dispute resolution procedures set forth in Article 6. The remedies provided herein are not exclusive. If, after Transmission Owner has paid PJM its unpaid Directly Assigned Expansion Costs, unpaid Interim Expansion Expenses, and Capitalized Expansion Costs incurred by PJM and calculated in accordance with Article 4, a positive balance of funds on deposit with PJM remains, PJM shall refund to Transmission Owner such balance within a commercially reasonable period.

5.4 Obligations if Transmission Owner Transfers Control of Transmission Facilities to PJM but Withdraws Control Prior to Recovery by PJM of All Capitalized Expansion Costs Under the PJM Tariff. In the event Transmission Owner withdraws control of its Transmission Facilities from PJM within three (3) years from the Completion Date, PJM shall issue an invoice to Transmission Owner for Capitalized Expansion Costs calculated in accordance with section 4.1.3, if any, that PJM shall not have recovered pursuant to section 4.1.3.2 under the PJM Tariff as of the effective date of such withdrawal. No later than thirty (30) days after receipt of such invoice, Transmission Owner shall pay the amount stated in the invoice. In the event Transmission Owner disputes the amount stated in the invoice, Transmission Owner shall pay the entire amount specified in the invoice within such thirty (30) day period and may seek recovery of the disputed amount under the dispute resolution procedures set forth in Article 6. In the event Transmission Owner withdraws and pays the amounts due under this section, and PJM determines in good faith that some or all of the work product funded through Capitalized Expansion Costs will be of recoupable value to PJM, then Transmission Owner and PJM shall negotiate in good faith any appropriate rebate to Transmission Owner of the amounts paid by Transmission Owner under this section.

5.5 Injunctive Relief.

5.5.1 PJM's Rights. Transmission Owner understands and agrees that PJM relies on recovery of expenditures under the PJM Tariff to fund its operations, and that, in the event PJM does not recover any portion of Expansion Costs under sections 4.1.3.2, 4.1.4.2, 4.1.5.2, 4.3, 5.1 (and subsections thereof), 5.2, 5.3 (and subsections thereof), or 5.4, PJM will suffer irreparable harm. Therefore, Transmission Owner consents, stipulates, and agrees to the issuance of a temporary, preliminary, and permanent injunction by any federal or state court with jurisdiction to require that Transmission Owner comply with its payment obligations under sections 4.1.2.2, 4.1.3.2, 4.1.4.2, 4.3 5.1 (and subsections thereof), 5.2, 5.3 (and subsections thereof), and 5.4, as applicable. Transmission Owner expressly consents to the personal jurisdiction of any such court located in Pennsylvania for this purpose. PJM's entitlement to a grant of injunctive relief under this section shall be without prejudice to any rights PJM may have to additional remedies at law or in equity.

5.5.2 Transmission Owner's Rights. PJM understands and agrees that in the event that PJM does not comply with its obligations set forth in sections 4.4.1, 5.3.2 or 7.6(ii) Transmission Owner will suffer irreparable harm. Therefore, PJM consents, stipulates, and agrees to the issuance of a temporary, preliminary, and permanent injunction by any federal or state court with jurisdiction to require that PJM comply with its obligations under section 4.4.1, 5.3.2 or 7.6(ii). PJM expressly consents to the personal jurisdiction of any such court located in Pennsylvania for this purpose. Transmission Owner's entitlement to a grant of injunctive relief under this section shall be without prejudice to any rights Transmission Owner may have to additional remedies at law or in equity.

ARTICLE 6 DISPUTE RESOLUTION

Should a dispute arise under or relating to this Implementation Agreement, the Parties shall undertake good-faith negotiations between designated executive representatives with authority to resolve the matter in dispute. In the event such negotiations fail, the dispute shall be subject to binding arbitration under the Commercial Arbitration Rules of the American Arbitration Association, to be held in Washington, D.C., and judgment thereon may be entered by a court with jurisdiction; provided, that in the event Transmission Owner fails to make a payment required under this Implementation Agreement, PJM, in its sole discretion, may submit the dispute to binding arbitration under this Article, seek injunctive relief under section 5.5, or seek both injunctive and arbitral remedies, and this Article shall not bar such an action for injunctive relief brought by PJM or the grant of such relief therein; provided, further, that in the event PJM fails to make a payment required under section 7.6(ii) or a refund required under this Implementation Agreement, Transmission Owner, in its sole discretion, may submit the dispute to binding arbitration under this Article, seek injunctive relief under section 5.5, or seek both injunctive and arbitral remedies, and this Article shall not bar such an action for injunctive relief brought by Transmission Owner or the grant of such relief therein.

ARTICLE 7 ADDITIONAL AND MISCELLANEOUS MATTERS

7.1 Relationship of the Parties. This Implementation Agreement shall not be interpreted or construed to create any association, joint venture, or partnership between or among the Parties or to impose any partnership obligation liability upon any Party. No Party shall have the right, power or authority under this Implementation Agreement to enter into any agreement or undertaking for, or act on behalf of, or to act as or be an agent or representative of, or to otherwise bind, any other Party.

7.2 No Third-Party Beneficiaries. This Implementation Agreement is intended solely for the benefit of the Parties and their respective successors and permitted assigns and is not intended to and shall not confer any rights or benefits on, any third party (other than the Parties' successors and permitted assigns) that is not a signatory hereto.

7.3 Term and Termination. This Implementation Agreement shall be effective upon the Effective Date and shall continue in effect from year to year thereafter unless and until terminated by the terms of this Implementation Agreement or by satisfaction of all obligations of each Party.

7.4 Successors and Assigns. This Implementation Agreement shall inure to the benefit of and be binding upon the Parties and their respective successors, but shall not be assigned without the prior written consent of the other Party, and except, in the case of Transmission Owner, to a successor in the operation of the Transmission Facilities by reason of a merger, consolidation, reorganization, sale, spin-off, or

foreclosure, as a result of which all or substantially all such Transmission Facilities are acquired by such a successor and assign, and such successor and assign expressly is made a party to this Implementation Agreement.

7.5 Force Majeure No Excuse. The occurrence of an Act of God or event of Force Majeure, as customarily defined, shall neither excuse Transmission Owner from making any payment required under this Implementation Agreement, nor excuse PJM from using best efforts to integrate Transmission Owner into PJM as anticipated by section 3.2.6.

7.6 Limitations on Liability. Neither Party shall be liable to the other Party for any claim for damages, whether direct, indirect, actual, incidental, special, punitive or consequential damages, or loss of the other Party, including, but not limited to, loss of profits or revenues, cost of capital of financing, or loss of goodwill arising from such Party's carrying out, or failing to carry out, any obligations contemplated by this Implementation Agreement. Notwithstanding the foregoing:

- (i) Transmission Owner shall remain liable with respect to the payment obligations provided in this Implementation Agreement;
- (ii) PJM shall be liable in the event it willfully and without justification abrogates its undertakings described in this Implementation Agreement or misappropriates or converts deposits or funds advanced hereunder by Transmission Owner; in either event, such liability shall be limited strictly to the return of any misappropriated or converted deposits or funds, together with interest; and
- (iii) provided, however, that nothing herein shall be deemed to reduce or limit the obligation of any Party with respect to the claims of persons or entities not a party to this Implementation Agreement.

7.7 Governing Law. This Implementation Agreement shall be interpreted, construed and governed by the laws of the state of Delaware without regard to conflicts of law principles.

7.8 Notice. Whether or not expressly stated, all notices, demands, requests and other communications required or permitted by or provided for in this Implementation Agreement ("Notice") shall be given in writing to a Party at the address set forth below, or at such other address as a Party shall designate for itself in writing in accordance with this section, and shall be delivered in person, by first class, registered or certified mail, or by overnight courier service:

For all Notices:

PJM Interconnection, L.L.C.
955 Jefferson Avenue
Valley Forge Corporate Center
Norristown, PA 19403-2497
Attn: Terry Boston
President & CEO

Duke Energy Ohio, Inc.
139 East Fourth Street
Cincinnati, OH 45202
Attn: Julie Janson
President

Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45202
Attn: Julie Janson
President

With a copy to:

PJM Interconnection, L.L.C.
955 Jefferson Avenue
Valley Forge Corporate Center
Norristown, PA 19403-2497
Attn: Vincent Duane
Vice President & General Counsel

Duke Energy Ohio, Inc.
139 East Fourth Street
Cincinnati, OH 45202
Attn: Catherine Stempien
Senior Vice President - Legal

Duke Energy Kentucky, Inc.
139 East Fourth Street
Cincinnati, OH 45202
Attn: Catherine Stempien
Senior Vice President - Legal

7.9 Execution of Counterparts. This Implementation Agreement may be executed in any number of counterparts, each of which shall be an original but all of which together will constitute one instrument, binding upon the Parties, notwithstanding that all such Parties may not have executed the same counterpart.

7.10 Representations and Warranties.

7.10.1 Each Party represents and warrants to the other Party that, as of the Effective Date of this Implementation Agreement as to such Party:

7.10.1.1 It is duly organized, validly existing and in good standing under the laws of the jurisdiction where organized, and qualified to do business in each state in which it is required to be so qualified;

7.10.1.2 The execution and delivery of this Implementation Agreement and the performance of its obligations hereunder have been duly and validly authorized by all requisite action on the part of the Party and do not conflict with any applicable law or with any other agreement binding upon the Party. The Implementation Agreement has been duly executed and delivered by the Party. The Implementation Agreement constitutes the legal, valid and binding obligation of the Party enforceable against it in accordance with its terms except insofar as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization, fraudulent conveyance, moratorium or other similar laws affecting the enforcement of creditor's rights generally and by general principles of equity concerning such enforcement, regardless of whether such principles are applied in a proceeding at law or in equity.

7.10.2 PJM hereby disclaims any warranties, express or implied, in the provision of Transmission Owner Expansion.

7.11 Severability and Renegotiation

7.11.1 Severability. Each provision of this Implementation Agreement shall be considered severable and if for any reason any provision is determined by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, the remaining provisions shall continue in full force and effect and shall in no way be affected, impaired or invalidated, and such invalid, void or unenforceable provision shall be replaced with valid and enforceable provision or provisions which otherwise give effect to the original intent of the invalid, void or unenforceable provision.

7.11.2 Renegotiation. If any provision of this Implementation Agreement is held by a court or regulatory authority of competent jurisdiction to be invalid, void or unenforceable, or if the Implementation Agreement is modified or conditioned by a regulatory authority exercising jurisdiction over this Implementation Agreement, the Parties shall endeavor in good faith to negotiate such amendment or amendments as will restore the relative benefits and obligations of the Parties immediately prior to such holding, modification or condition. If after 60 days such negotiations are unsuccessful then this Implementation Agreement shall be deemed terminated except that the following shall survive such termination:

- Section 4.1.2.2 (payment of capitalized expansion costs)
- Section 4.1.3.2
- Section 4.1.4.2
- Section 4.3 (and subsections thereof)
- Section 5.1 (and subsections thereof)
- Section 5.3 (and subsections thereof)
- Section 5.4
- Section 5.5
- Article 6
- Article 7

7.12 Headings. The article and section headings used in this Implementation Agreement are for convenience only and shall not affect the construction or interpretation of any of the provisions.

7.13 Entire Agreement. This Implementation Agreement and Schedule 3.2.6 attached hereto shall constitute the entire agreement between the Parties with respect to the subject matter hereof. There are no prior contemporaneous agreements or representations affecting such subject matter other than those expressed in this Agreement. Notwithstanding the foregoing, the Non-Disclosure Agreement executed by and between PJM and Duke Energy Kentucky, Inc., dated June 11, 2010 shall continue in full force and effect and shall govern any continuing exchanges of information by PJM and Duke Energy Kentucky, Inc. relating to performance under this Implementation Agreement, as set forth therein.

7.14 Duty to Mitigate. Each party shall take commercially reasonable measures to mitigate any costs and expenses incurred by it in performing its obligations under this Implementation Agreement.

7.15 Standing. The parties agree that the provisions of section 11.6 of the Operating Agreement are incorporated herein by reference and that Transmission Owner has standing, in any court or other forum of competent jurisdiction, to enforce said provisions to the same extent, and as if, it were a party to the Operating Agreement.

IN WITNESS WHEREOF, the Parties have caused this Implementation Agreement to be executed by their duly authorized representatives.

PJM Interconnection, L.L.C.

By:



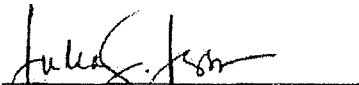
Name: Michael J. Kormos

Title: Senior Vice President - Operations

Date: 6/14/10

Duke Energy Ohio, Inc.

By:



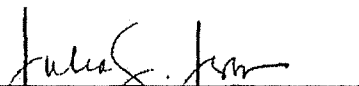
Name: Julie S. Janson

Title: President

Date: 6.11.10

Duke Energy Kentucky, Inc.

By:



Name: Julie S. Janson

Title: President

Date: 6.11.10

**Schedule 3.2.5
Project Implementation Plan**

2010		
1.	Initial Meetings with Project Team	June
2.	Create/Confirm Initial Assumptions	June
3.	Begin Detailed Project Plan & Estimates	July
4.	Establish Project Team Meeting Schedule with Transmission Owner	July
5.	Initial integration FERC filing including submission of signed Implementation Agreement	July
6.	Determine Initial Resource Requirements	August
7.	Develop Workforce/Consultant RFP's (if necessary)	August
8.	Complete Project Estimates (less volume analysis impacts)	August
9.	Complete Project Plan & Create Integration Whitepaper	September
10.	Roll Out Integration Web Site and e-mail for FAQ submission	September
11.	Initial PJM Stakeholder Meetings - Brief Members on: <ul style="list-style-type: none"> • PJM Integration Plan and Projected Costs • Communication Plan • In Progress Review Schedule • Capture Issues/Concerns 	October
12.	Meet with Impacted RTOs/ISOs to capture their concerns	October - November
13.	Initial Meetings with the impacted state commissions.	October - December
14.	Initial Meetings FERC, NERC, and Regional Staffs—share plan to maintain reliability and capture their concerns	October - December
15.	Planning Retool Models	September – November
16.	Planning Conducts Deliverability analysis of Transmission Owner Control Area Resources	November – December
17.	Within reasonable time after issuance of FERC order approving terms and conditions of Transmission Owner's application for authorization to enter PJM, Transmission Owner signs OA, TOA and RAA	November

2011		
18.	2 nd PJM Stakeholder Meeting	January - February
19.	PJM Forecast changes to IRM Projections	January
20.	EMS & Markets Model Enhancements	January - June
21.	PJM completes MISO/PJM JOA CMP Impacts on flowgates & coordinates allocation changes with MISO	January – March
22.	Planning Conducts additional Stability and Blackstart analysis	January - June
23.	Conduct PJM Systems' Volume Analysis	March - May
24.	Planning Parameters Posted for May RPM Auction	February 1 st
25.	PJM Spring Seminar for All Operators – Training on Operational Changes with Transmission Owner Integration	February - April
26.	Members Approve any Necessary Manual Revisions	February – June
27.	Operations Procedures Enhancements & Manual Revisions	March – June
28.	3 rd PJM Stakeholder Meeting (if necessary)	March
29.	2014/2015 RPM BRA Including Transmission Owner zones	May
30.	Hold Integration RPM Auctions for Transmission Owner's Control Area 11/12, 12/13 and 13/14 Delivery Years	June
31.	Refine Project Plan Scope/Schedule/Budget based upon volume assessment	June
32.	PJM Stakeholder Training	June - October
33.	FERC filings for (i) OA, TOA and RAA revisions to add Transmission Owner operating Companies; and (ii) Tariff rates and other Tariff revisions for a January 1 st effective date	July 1
34.	Sign off on Integration Test Schedule	August
35.	RC/BA/TOP Changes Coordinated with Neighbors	September – October
36.	Develop Product and Integration Test Plans	September-November
37.	Transmission Owner Operators Complete PJM Operator Certification	October
38.	PJM EMS Expansion In Production (Contingencies Not Alarmed)	September
39.	Prep for RFC/NERC Certifications	September

40.	Develop Migration Plan	September - October
41.	Conduct PJM & Transmission Owner Operator Training	September - October
42.	January – May 2012 FTR Allocation Process for New Duke Ohio and Kentucky Zone(s)	October
43.	RFC/NERC BA & RC Certifications Complete	October - November
44.	EMS Parallel Operations	October - December
45.	PJM Coordinates Reliability Plan with RFC & SERC	November
46.	Operator Drills (Restoration/Emergency) – Lessons Learned Integrated Into Training	November
47.	DA and RT Market Trials	November - December
48.	NERC OC Approves PJM Reliability Plan	December
49.	Integration Dry Runs	December
50.	File report with FERC 20 days in advance of integration date to explain testing of data exchange and communication systems per Order issued March 18, 2004, in Docket No. ER04-375, 106 FERC ¶ 61,251 at ¶ 104 (2004).	December 12 th
2012		
51.	INTEGRATION “GO LIVE”	January 1 st
52.	Issue Identification/Resolution	January - March
53.	Final Integration Issues Closed Out	April 1 st

**BEFORE THE
KENTUCKY PUBLIC SERVICE COMMISSION**

In The Matter of:

Duke Energy Kentucky, Inc.'s Application for Approval)	Case No. 2010-00203
To Transfer Functional Control of its Transmission Assets)	
From the Midwest Independent Transmission System)	
Operator to the PJM Interconnection Regional Transmission)	
Organization And Request for Expedited Treatment)	

**DIRECT TESTIMONY OF
WILLIAM DON WATHEN JR.
ON BEHALF OF
DUKE ENERGY KENTUCKY, INC.**

July 6, 2010

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I. INTRODUCTION

1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is William Don Wathen Jr., and my business address is 139 East Fourth
3 Street, Cincinnati, Ohio 45202.

4 **Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

5 A. I am employed by Duke Energy Business Services, LLC., an affiliate service
6 company of Duke Energy Kentucky, Inc. (Duke Energy Kentucky or the
7 Company), as Vice President Rates, Ohio and Kentucky.

8 **Q. PLEASE SUMMARIZE YOUR EDUCATION AND PROFESSIONAL
9 EXPERIENCE.**

10 A. I received Bachelor Degrees in Business and Chemical Engineering, and a Master
11 of Business Administration Degree, all from the University of Kentucky. After
12 completing graduate studies, I was employed by Kentucky Utilities Company as a
13 planning analyst. In 1989, I began employment with the Indiana Utility
14 Regulatory Commission as a senior engineer. From 1992 until mid-1998, I was
15 employed by SVBK Consulting Group, where I held several positions as a
16 consultant focusing principally on utility rate matters. I was hired by Cinergy
17 Services, Inc., in 1998, as an Economic and Financial Specialist in the Budgets
18 and Forecasts Department. In 1999, I was promoted to the position of Manager,
19 Financial Forecasts. In August 2003, I was named Director of Revenue
20 Requirements in the Rates Department where I had responsibility for the
21 preparation of financial and accounting data used in the wholesale and retail rate
22 filings for Duke Energy Ohio, Inc., (Duke Energy Ohio) and Duke Energy

1 Kentucky, and for changes in fuel and gas cost adjustment clauses. In December
2 2009, I was named to my current position, Vice President Rates Ohio and
3 Kentucky.

4 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION?**

5 A. Yes. I have previously testified in several cases before the Kentucky Public
6 Service Commission (Commission). Most recently, I submitted testimony in
7 support of the Company's gas rate case, Case No. 2009-00202.

8 **Q. PLEASE SUMMARIZE YOUR DUTIES AS VICE PRESIDENT RATES,
9 OHIO AND KENTUCKY.**

10 A. As Vice President, Rates, I am responsible for all state and federal regulated rate
11 matters involving Duke Energy Ohio and Duke Energy Kentucky.

12 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

13 A. The purpose of my testimony is to support Duke Energy Kentucky's application
14 in this proceeding to realign its regional transmission organization (RTO)
15 membership, by withdrawing from the Midwest Independent Transmission
16 System Operator, Inc. (Midwest ISO) and joining the PJM Interconnection,
17 L.L.C. (PJM). Through this testimony, I will explain and support several of the
18 commitments that the Company is making in its filing, namely: 1) the
19 commitment not to seek to recover through base rates any exit fees imposed by
20 the Midwest ISO; and 2) the commitment that Duke Energy Kentucky will not
21 seek to recover costs of transmission expansion plans of both the Midwest ISO
22 and PJM for the same periods even though the Company may incur such costs due
23 to the proposed transfer. I will also explain how the Company proposes to

1 determine which RTO transmission expansion plan costs it will seek to recover
2 through rates and how the Company will make such a determination. Finally, I
3 will discuss how the Company's proposed RTO realignment will impact the
4 Company's Profit Sharing Mechanism (Rider PSM).

II. DUKE ENERGY KENTUCKY'S COMMITMENTS

5 **Q. PLEASE DESCRIBE THE MIDWEST ISO COSTS THAT ARE**
6 **CURRENTLY RECOVERED IN DUKE ENERGY KENTUCKY'S**
7 **RETAIL ELECTRIC RATES.**

8 A. Duke Energy Kentucky's existing retail electric rates were approved by the
9 Commission in Case No. 2006-00172. The test year used in the Company's
10 application in that proceeding was the forecasted test year beginning January 1,
11 2007, and ending December 31, 2007. Included in the test year revenue
12 requirement was the Company's projection of certain Midwest ISO administrative
13 costs¹, specifically, Schedule 10, Schedule 10-FERC, Schedule 16, and Schedule
14 17. Collectively, these Midwest ISO administrative costs included in test year
15 revenue requirement totaled approximately \$1.5 million.

16 Also included in base rates was the projected Duke Energy Kentucky
17 share of network integrated transmission service revenue requirement for the
18 Duke Energy Midwest transmission. This component of revenue requirements is
19 also based on FERC-approved rates insofar as it is based on the formula rate used

¹ These charges are part of the Midwest ISO's Transmission and Energy Markets Tariff (TEMT) and are approved by the Federal Energy Regulatory Commission (FERC).

1 by all of the Duke Energy Midwest companies in its Attachment O² filing. In
2 simple terms, Duke Energy Kentucky's retail revenue requirement includes its
3 share of the total revenue requirement associated with the Midwest ISO for Duke
4 Energy Ohio, Duke Energy Indiana, and Duke Energy Kentucky.

5 **Q. ARE ALL OF THE CHARGES OR CREDITS FROM THE MIDWEST ISO**
6 **INCLUDED IN THE COMPANY'S BASE ELECTRIC RATES?**

7 A. No. While there are some components of costs that are included in the
8 Company's monthly fuel adjustment clause (FAC) or its quarterly profit sharing
9 mechanism rider (Rider PSM), the periodic bills received from the Midwest ISO
10 also include a number of other and additional charges and/or credits that are not
11 being recovered at all. Some of those additional charges and credits (*e.g.*,
12 transmission expansion) did not exist at the time the Company filed its most
13 recent electric base rate case and are not being recovered through either the FAC
14 or Rider PSM.

15 As part of a settlement, Duke Energy Kentucky withdrew a proposed rider
16 to periodically track changes in all of its Midwest ISO transmission costs (similar
17 to riders approved for its affiliates in Indiana and Ohio). Consequently, the
18 Company is not recovering any of those specific Midwest ISO charges that did
19 not exist at the time of the last base electric rate case. Furthermore, because some
20 of the Midwest ISO costs have increased since the time of the last electric rate
21 case, without a tracker to recover such incremental increased costs, the Company

² The Midwest ISO's TEMT includes a formula for computing the revenue requirement for network integrated transmission service. PJM has a comparable formula rate in Attachment H of its Open Access Transmission Tariff.

1 must simply absorb these cost increases. As it stands, Duke Energy Kentucky can
2 only adjust its retail electric rates to recover these costs when it sets new rates as a
3 result of a general electric base rates case. Since the time electric rates were set in
4 the last electric rate case, Duke Energy Kentucky's charges from the Midwest
5 ISO have increased from about \$1.5 million to more than \$1.8 million, annually.

6 **Q. YOU MENTIONED EARLIER THAT SOME MIDWEST ISO CHARGES**
7 **ARE PASSED THROUGH TO CUSTOMERS VIA THE FAC AND RIDER**
8 **PSM. WILL YOU PLEASE ELABORATE?**

9 A. In addition to the administrative costs described above, the periodic bills Duke
10 Energy Kentucky receives from the Midwest ISO include all of the generation
11 sold directly to the Midwest ISO and all of the load requirement that is purchased
12 from the Midwest ISO. In turn, the bills received from the Midwest ISO include
13 both the revenue for generation sold and the cost of energy purchased. The
14 Company uses after-the-fact accounting to determine the costs eligible for
15 recovery via the FAC, which may include economy energy purchased from the
16 Midwest ISO.

17 Certain Midwest ISO costs and revenues flow through the Company's
18 Rider PSM. In its last electric base rate case, the Commission approved the
19 Company's proposal to establish Rider PSM, which allows customers and
20 shareholders to share in the profits from off-system sales. As part of the after-the-
21 fact accounting used in the FAC, the Company compares its generation to its load
22 for all hours of the month at issue. If the Company sold more energy to the
23 Midwest ISO in a given hour than it purchased for its native load requirement, the

1 surplus is considered an off-system sale. All variable costs are deducted from the
2 revenue from this off-system sale to determine the profit on the transaction.
3 Under the Rider PSM, all of this profit for the year is shared between customers
4 and shareholders such that customers get 100% of the profits from off-system
5 sales up to the first \$1 million. To the extent profits for the year exceed \$1
6 million, shareholders and customers evenly split the profit after the first \$1
7 million.

8 Generally, the revenue from off-system sales is from the sale of energy;
9 however, the Company has included any capacity sales in the calculation and,
10 beginning in 2008, margins from the sale of ancillary services³ to the Midwest
11 ISO have been included as well. It should be noted that, although the FAC and
12 Rider PSM provide some means of passing through some of the Midwest ISO
13 costs and revenue through netting, including from the ancillary services market
14 (ASM), which did not exist at the time of the rate case, other costs such as costs
15 of administering the ASM and increases in transmission expansion costs are not
16 recoverable absent inclusion in base rates in an electric rate case.

17 **Q. PLEASE EXPLAIN DUKE ENERGY KENTUCKY'S COMMITMENT**
18 **THAT IT WILL NOT SEEK TO RECOVER THROUGH BASE RATES**
19 **ANY EXIT FEES IMPOSED BY THE MIDWEST ISO.**

20 A. As more fully discussed in the Direct Testimony of Duke Energy Kentucky
21 Witness James B. Gainer, Duke Energy Kentucky will be responsible for a

³ Beginning 1/6/2009, the Midwest ISO implemented its "Day 3" market. The implementation of this Day 3 market allows Midwest ISO members to buy and sell certain ancillary services (*i.e.*, regulation, spinning reserve, and supplemental reserve).

1 portion of an exit fee for leaving the Midwest ISO by the nature of its
2 membership agreement. Duke Energy Kentucky continues to believe that its RTO
3 membership provides many benefits to the utility and its customers in terms of
4 reliability; therefore, the Company believes its RTO membership is prudent and in
5 the public interest. As Mr. Gainer describes, the Company recognizes that,
6 although withdrawal from the Midwest ISO became essential for operational
7 efficiency purposes due to Duke Energy Ohio's decision to realign, continued
8 RTO membership and joining PJM furthers the public interest in that it permits
9 the Company to continue to provide reasonably priced and reliable electric
10 service.

11 To assure the Commission and customers of Duke Energy Kentucky's
12 commitment to providing reliable and reasonably priced electric service, in this
13 case, customers will not be asked to pay the Midwest ISO exit fee for the
14 Company's decision to withdraw. As such, and as part of its application in this
15 proceeding, the Company is committing that it will not seek to recover the
16 Midwest ISO exit fee in base electric rates or through any rate adjustment
17 mechanism. To accomplish this, Duke Energy Kentucky will not seek a
18 regulatory deferral of the exit fee and will not include such a fee as part of its test
19 year operating expenses in its next electric rate case, whenever that may be. The
20 Company's commitment to have shareholders absorb this fee furthers the public
21 interest because customers will not face a higher rate due to the imposition of the
22 exit fee.

1 **Q. WHAT IS THE COMPANY'S ESTIMATED COST OF WITHDRAWING**
2 **FROM THE MIDWEST ISO?**

3 A. As Mr. Gainer explains, there are two primary financial obligations placed upon a
4 Midwest ISO member upon leaving. These include an actual exit fee and a share
5 of the commitment for existing transmission expansion projects. The exit costs
6 will be based upon the total Duke Energy (Ohio and Kentucky) load zone. The
7 actual cost of the exit fee is not yet known as it will be negotiated with the
8 Midwest ISO. However, based upon other similarly situated utilities that have
9 recently withdrawn from the Midwest ISO, Duke Energy Corp. estimates the total
10 exit costs (exit fee and transmission expansion obligation) for both Duke Energy
11 Ohio and Duke Energy Kentucky's withdrawal to be approximately \$77 million.
12 Duke Energy Kentucky expects that it will be allocated a share of the exit fee
13 based upon its share of the combined Duke Energy Ohio and Duke Energy
14 Kentucky load, or approximately 15-17%. Therefore, Duke Energy Kentucky
15 estimates its share of the withdrawal costs to be approximately \$11-13 million.

16 **Q. PLEASE EXPLAIN DUKE ENERGY KENTUCKY'S COMMITMENT**
17 **THAT IT WILL NOT SEEK TO RECOVER TRANSMISSION**
18 **EXPANSION PLAN COSTS OF BOTH THE MIDWEST ISO AND PJM**
19 **FOR THE SAME PERIODS.**

20 A. Again, as Mr. Gainer explains, Duke Energy Kentucky will be assessed
21 transmission expansion costs from both the Midwest ISO and PJM. Duke Energy
22 Kentucky currently pays its allocated portion of the Midwest ISO Transmission
23 Expansion Plan (MTEP) costs as part of its membership in the RTO. As projects

1 were approved when Duke Energy Kentucky was a member of the Midwest ISO,
2 costs were allocated to Duke Energy Kentucky. These projects were designed,
3 approved and initiated based in part upon the total membership in and needs of
4 the RTO system at the time. Even upon its exit, Duke Energy Kentucky will
5 remain financially responsible for its allocated portion of the costs for projects
6 approved when the Company was a member. Because transmission expansion
7 projects take many years to complete, Duke Energy Kentucky will be financially
8 responsible for its allocated share of project costs approved when the Company
9 was a Midwest ISO member until those projects are completed. The Company
10 will not be allocated new MTEP costs for any projects approved after it leaves the
11 Midwest ISO.

12 PJM has a similar regional transmission expansion planning process
13 (RTEPP). PJM allocates the RTEPP costs among its members on an annual basis.
14 Therefore, when Duke Energy Kentucky joins PJM, it will be allocated a portion
15 of the RTEPP costs for projects currently underway and going forward.

16 As one of the commitments in this proceeding, Duke Energy Kentucky is
17 committing that it will not seek to double recover in its base rates both RTEPP
18 and METP costs that may be assessed for overlapping time periods. The
19 Company will propose a level of recovery for these transmission expansion costs
20 as part of its next electric base rate case.

21 **Q. PLEASE EXPLAIN HOW AND WHEN DUKE ENERGY KENTUCKY**
22 **WILL DETERMINE WHICH RTO'S TRANSMISSION EXPANSION**
23 **PLAN COSTS IT WILL SEEK TO RECOVER IN BASE RATES.**

1 A. Duke Energy Kentucky reasserts that RTO membership has numerous benefits for
2 customers and members and that it is appropriate that customers receiving the
3 benefits of enhanced reliability share in those costs; however, customers should
4 not be required to pay twice for those costs. Therefore, the amount and category
5 of transmission costs will be determined when Duke Energy Kentucky files its
6 next electric rate case. The determination of how much and which variety of
7 transmission costs will be a function of the level of information we have at the
8 time of the Company's next electric rate case filing. Because the Company can
9 only establish rate recovery for these costs (*i.e.*, transmission expansion costs)
10 through a test year in a base rate case, the level of and decision as to whether
11 RTEPP or MTEP or some combination of both should be included in base rates
12 will largely depend upon the timing of the next electric rate case, a decision which
13 the Company has not made. For instance, if Duke Energy Kentucky were to file
14 an electric rate case this year using a historic test year ending prior to January 1,
15 2012, (the anticipated consummation of the RTO realignment), then the Company
16 could only base its rates upon MTEP expenses during the test year, because it
17 would not incur any RTEPP expenses. Similarly, if the Company does not file an
18 electric rate case until sometime after the consummation of the RTO realignment,
19 and uses a forecasted test year, then it may be appropriate for only RTEPP costs
20 to be included in base rates. If the Company files a rate case with a test year that
21 covers both a period prior to and after the RTO realignment, it may be appropriate
22 for some level (but not all) of both RTEPP and MTEP. That is why the Company

1 believes the decision should only be determined at the time of the next electric
2 base rate case.

3 The Company realizes that whatever the timing of the next case, it will
4 bear the burden of supporting its proposed revenue requirement, including
5 whether the RTO costs included in the test year are fair, just and reasonable.
6 Further, the Company acknowledges that the Commission will maintain all of its
7 existing authority over the determining whether the Company's proposed rates are
8 fair, just and reasonable.

9 **Q. WILL THE RTO REALIGNMENT NEGATIVELY AFFECT THE FUEL
10 ADJUSTMENT CLAUSE OR RIDER PSM?**

11 A. No. Duke Energy Kentucky will continue to calculate its fuel costs allocable to
12 its retail customers in a manner very similar to the method employed now.
13 Similarly, for its Rider PSM, the Company will continue to share with customers
14 the profits generated from off-system sales and will include any margins on its net
15 ancillary services under the same terms and condition of Rider PSM as it does
16 today. In fact, as more fully explained by Duke Energy Kentucky Witnesses John
17 D. Swez and Kenneth J. Jennings, Duke Energy Kentucky believes that the RTO
18 realignment will allow the Company to further optimize its generation portfolio in
19 that PJM offers a more predictable capacity market with prices determined on a
20 three year forward-looking basis.

III. CONCLUSION

1 **Q. DO YOU BELIEVE DUKE ENERGY KENTUCKY'S RTO**
2 **REALIGNMENT IS IN THE PUBLIC INTEREST?**

3 A. Yes. As explained by Mr. Gainer, Duke Energy Kentucky's decision to realign its
4 RTO membership is necessary for operational efficiency purposes due to Duke
5 Energy Ohio's decision to realign and, therefore, it is for a proper purpose and in
6 the public interest because it continues to allow the Company to control its
7 operational costs and to provide safe, reliable and affordable electric service. The
8 commitments that I have described in my testimony further support that the
9 realignment is in the public interest because customers will not be asked to pay
10 for the costs of the realignment transaction. Duke Energy Kentucky's customers
11 will be held harmless from any additional costs due to the Midwest ISO's
12 assessment of an exit fee and customers will not be asked to double-pay for
13 transmission expansion costs for overlapping time periods caused by this
14 realignment. Customers will continue to share in the rate credits derived through
15 the Company's ability to optimize its generation portfolio through off-system
16 sales via Rider PSM.

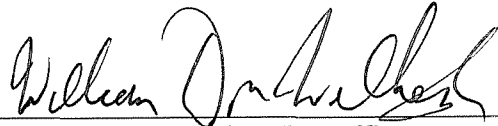
17 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

A. Yes.


VERIFICATION

State of Ohio)
)
County of Hamilton) SS:

The undersigned, William Don Wathen Jr., being duly sworn, deposes and says that he is the Vice President Rates, Ohio and Kentucky, of Duke Energy Business Services, LLC, that he has personal knowledge of the matters set forth in the foregoing testimony, and that the answers contained therein are true and correct to the best of his information, knowledge and belief.


William Don Wathen Jr., Affiant

Subscribed and sworn to before me by W. Don Wathen, Jr. this 29 day of JUNE 2010.


NOTARY PUBLIC

My Commission Expires:



ANITA M. SCHAFER
Notary Public, State of Ohio
My Commission Expires
November 4, 2014