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Mr. Jeff DeRouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602

RECEIVED
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PUBLIC SERVICE COMMISSION

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January 6, 2010

RE: ***APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY FOR APPROVAL OF PURCHASED POWER AGREEMENTS AND RECOVERY OF ASSOCIATED COSTS***
CASE NO. 2009-00353

Dear Mr. DeRouen:

Please find enclosed and accept for filing the original and eight (8) copies of the Response of Louisville Gas and Electric Company and Kentucky Utilities Company to the Commission Staff's First Data Request dated December 21, 2009, in the above-referenced matter.

Also enclosed are an original and ten (10) copies of a Petition for Confidential Protection regarding information provided in response to Question No. 7.

Should you have any questions concerning the enclosed, please contact me at your convenience.

Sincerely,

Rick E. Lovekamp

Rick E. Lovekamp

Enclosures

cc: Parties of Record

1 | 1

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY FOR APPROVAL OF PURCHASED POWER AGREEMENTS AND RECOVERY OF ASSOCIATED COSTS	)))))	CASE NO. 2009-00353

RESPONSE OF LOUISVILLE GAS AND ELECTRIC COMPANY AND KENTUCKY UTILITIES COMPANY TO COMMISSION STAFF'S FIRST DATA REQUEST DATED DECEMBER 21, 2009

FILED: JANUARY 6, 2010

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Charles R. Schram**, being duly sworn, deposes and says that he is Director – Energy Planning, Analysis and Forecasting for E.ON U.S. Services, Inc., and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Charles R. Schram
Charles R. Schram

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 6th day of January 2010.

Victoria B. Harper (SEAL)
Notary Public

My Commission Expires:

Sept 20, 2010

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) SS:
COUNTY OF JEFFERSON)

The undersigned, **Douglas Keith Schetzel**, being duly sworn, deposes and says that he is Director of Business Development for E.ON U.S. Services, Inc., and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Douglas Keith Schetzel

Douglas Keith Schetzel

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 5th day of January 2010.

Victoria B. Harper (SEAL)
Notary Public

My Commission Expires:

Sept 20, 2010

VERIFICATION

COMMONWEALTH OF KENTUCKY)
) **SS:**
COUNTY OF JEFFERSON)

The undersigned, **Lonnie E. Bellar**, being duly sworn, deposes and says that he is Vice President, State Regulation and Rates for Kentucky Utilities Company and Louisville Gas and Electric Company and an employee of E.ON U.S. Services, Inc., and that he has personal knowledge of the matters set forth in the responses for which he is identified as the witness, and the answers contained therein are true and correct to the best of his information, knowledge and belief.

Lonnie E. Bellar

Lonnie E. Bellar

Subscribed and sworn to before me, a Notary Public in and before said County and State, this 5th day of January 2010.

Tammy J. Elgy (SEAL)
Notary Public

My Commission Expires:

November 9, 2010

LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Data Request
Dated December 21, 2009

Case No. 2009-00353

Question No. 1

Witness: Charles R. Schram

Q-1. Refer to page 6, paragraph 11, of Joint Applicants' September 28, 2009 application ("Application"), which cites a number of states near Kentucky that have implemented Renewable Portfolio Standards ("RPS"). Provide summary descriptions of the RPS in place in Illinois, Missouri and Ohio.

A-1. State Renewable Portfolio Standards – IL, MO, OH

Illinois

On August 28, 2007, Governor Rod Blagojevich of Illinois signed into law Public Act 095-0481, which sets a statewide Renewable Energy Standard and an Energy Efficiency Portfolio Standard. Utilities in Illinois must obtain a given percentage of their power from renewable sources, starting with 2% in 2008 and increasing to 25% by 2025. 75% of the electricity used to meet the renewable standard must come from wind power generation; other eligible electricity resources include solar, biomass, and existing hydropower sources. Additional information on the Illinois RPS can be obtained at the following links.
http://www.ilga.gov/legislation/ilcs/ilcs5.asp?ActID=2934&ChapAct=20%26nbsp%3BILCS%26nbsp%3B3855%2F&ChapterID=5&ChapterName=EXECUTIVE+BRANCH&ActName=Illinois+Power+Agency+Act%2E

http://www.ilga.gov/legislation/publicacts/fulltext.asp?Name=096-0159

Missouri

On November 4, 2008, Missouri voters approved the Missouri Clean Energy Initiative, creating the nation's third state Renewable Portfolio Standard (RPS) to be adopted by ballot initiative. Most state RPSs have been adopted through

legislation or executive order. The Missouri RPS requires that investor-owned utilities increase renewable electricity generation to 2% of total requirements by 2011, 5% by 2014, 10% by 2018, and 15% by 2021. 2% of generation must come from solar energy; the remainder may come from other renewable sources including landfill gas, wind, biomass, and hydroelectric power. Additional information on the Missouri RPS can be obtained at the following link.
http://www.moga.mo.gov/statutes/chapters/chap393.htm

Ohio

On May 1, 2008, Governor Ted Strickland signed substitute Senate Bill 221 into law, establishing an alternative energy portfolio standard. The law mandates that by 2025, at least 25% of all electricity sold in the state comes from alternative energy resources. At least half of the standard, or 12.5% of electricity sold, must be generated by renewable sources such as wind, solar (which must account for at least 0.5% of electricity use by 2025), hydropower, geothermal, or biomass, and at least half of this renewable energy must be generated in-state. In addition to renewables, the additional 12.5% of the overall 25% standard can also be met through alternative energy resources like third-generation nuclear power plants, fuel cells, energy-efficiency programs, and clean coal technology that can control or prevent carbon dioxide emissions. The bill also creates a renewable energy credit tracking system, which allows utilities to buy, sell, and trade credits to comply with the renewable energy and solar energy requirements. Additional information on the Ohio RPS can be obtained at the following link.
http://codes.ohio.gov/orc/4928.64

LOUISVILLE GAS AND ELECTRIC COMPANY
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Question No. 2

Witness: Douglas Keith Schetzel

Q-2. Refer to page 8, paragraph 14, of the Application. Provide a thorough description of Invenergy LLC ("Invenergy"), the parent of Grand Ridge I. At a minimum, the description should include: (1) the state of its incorporation; (2) the nature of all its business ventures involved in or related to the energy industry; (3) a listing and brief summary of all wind power entities it presently owns or operates; and (4) names of any regulated counter-parties to wind power contracts which it or any affiliates, subsidiaries, etc. have executed.

A-2. Invenergy LLC is an Illinois limited liability company. Invenergy LLC, together with its affiliates, is referred to herein as "Invenergy".

Invenergy's Business Background
Invenergy is a leading energy company focused on the development of large-scale wind generation and natural gas fueled facilities in the North American and European markets. The company has significant expertise in the development, financing, construction, operations and management of power generation projects serving a wide range of utilities and load serving entities.

The senior management team has industry experience averaging over 20 years in diverse areas of the energy business. Invenergy is headquartered in Chicago and has professional staff located in Minneapolis, Austin, Denver, Washington D.C., Toronto, and San Francisco. International development is focused on the European wind energy markets.

According to the American Wind Energy Association, Invenergy is the fifth largest owner/operator of wind projects in the North America. By the end of 2009, Invenergy's operating portfolio of wind projects will be nearly 2000 MW.

Table 1 below lists Invenergy's wind projects that are operating, in construction, or under contract.

Table 1
Invenergy Wind Projects

Wind Project	Location	Status	Size of Facility
Le Plateau	Quebec	In Construction	147 MW
Vantage	Washington	In Construction	90 MW
Beech Ridge	West Virginia	In Construction	100.5 MW
Raleigh	Ontario	In Construction	68 MW
Hurricane Lake	South Dakota	Under Contract	250 MW
Grand Ridge II, III & IV	Illinois	Operating	111 MW
Sheldon	New York	Operating	112.5 MW
Turkey Track	Texas	Operating	169.5 MW
McAdoo	Texas	Operating	150 MW
Willow Creek	Oregon	Operating	72 MW
Grand Ridge I	Illinois	Operating	99 MW
Stanton	Texas	Operating	120 MW
Camp Springs II	Texas	Operating	120 MW
Forward	Wisconsin	Operating	129 MW
Camp Springs I	Texas	Operating	130.5 MW
Judith Gap	Montana	Operating	135 MW
Wolverine Creek	Idaho	Operating	65 MW
Spring Canyon	Colorado	Operating	60 MW
Tymien	Poland	Operating	50 MW
Buffalo Mountain	Tennessee	Operating	27 MW
		Total:	**2,206 MW**

In addition to Invenergy's substantial wind energy business, Invenergy is also a significant developer, owner and operator of natural gas fueled thermal generating assets. Table 2 below includes the natural gas projects owned and operated by Invenergy.

Table 2
Invenergy Natural Gas Projects

Project	Location	Status	Size of Facility
Hardee	Florida	Operating	370 MW
Spindle Hill	Colorado	Operating	300 MW
Grays Harbor	Washington	Operating	620 MW
Cannon Falls	Minnesota	Operating	350 MW
St. Clair	Ontario	Operating	570 MW
		Total:	**2,210 MW**

Other Invenergy Wind Power Contracts with Regulated Entities
Invenergy has entered into a number of wind power purchase agreements for the output of the projects listed in the table above. These power purchase agreements are similar to the proposed contracts. The following are the regulated entities Invenergy has entered into power purchased agreements with:

- American Electric Power (subsidiary Appalachian Power)
- Tennessee Valley Authority
- Wisconsin Public Service
- Wisconsin Power & Light
- Madison Gas & Electric
- Public Service Company of Colorado
- Wisconsin Public Power
- Northwestern Energy
- PacifiCorp
- Los Angeles Department of Water & Power
- Pacific Gas & Electric
- Ontario Power Authority
- Hydro Quebec.

LOUISVILLE GAS AND ELECTRIC COMPANY
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Response to Commission Staff's First Data Request
Dated December 21, 2009

Case No. 2009-00353

Question No. 3

Witness: Lonnie E. Bellar / Charles R. Schram

Q-3. Refer to the table on page 9 of the Application.

a. Identify the cost(s) to which the costs of the proposed contracts were compared to derive the estimated incremental costs shown in the table.

b. Assuming Waxman-Markey, HR 2454, was implemented, explain whether it would be correct to consider an "alternative compliance payment" as the incremental cost Joint Applicants would incur if they opted to not meet its RPS requirements.

A-3.

a. As noted in paragraph 17 of the filing, the estimated incremental costs shown in the table on p.9 ($0.049-$0.057/kWh) are in relation to average energy costs, for the KU and LG&E systems respectively, over a 12-month period ending July 2009, as reported in FAC filings for this period. The 'incremental' cost is the difference between this historical average energy cost and the estimated delivered cost of energy – in 2010 – under the contract for Grand Ridge wind power.

b. It is the Companies' understanding that under Waxman-Markey utilities would have the option to make Alternative Compliance Payments ("ACPs") as an alternative to physical compliance. The proposed provisions as drafted include a provision for ACPs of $25/MWh in the event that a company fails to meet the proposed targets. In addition, other proposed GHG legislation could impose additional costs on coal-fired generation which would affect the incremental cost discussed above.

LOUISVILLE GAS AND ELECTRIC COMPANY
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Response to Commission Staff's First Data Request
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Question No. 4

Witness: Charles R. Schram

Q-4. Refer to page 9, footnote 11, of the Application. Explain why a 31–percent capacity factor was used to project the first-year expense under the proposed contracts. Provide all assumptions relied upon to determine that 31 percent is a reasonable capacity factor to expect under the contracts.

A-4. Wind power developers typically collect a minimum of 1-2 years of wind records to assess the wind potential of individual sites. The capacity factor of 31 percent was based on a wind profile provided in a report by Invenergy dated December 2008, reflecting the findings of the developer's meteorological surveys of the Grand Ridge site. This capacity factor is broadly consistent with expectations for wind power development in this region, and with indications provided by other developers as a result of the Companies' 2007 RFP for renewable resources.

Note that the Companies are not at financial risk should wind generation from this site fall short of this expectation. Under the contract structure – which has no fixed capacity payments – the Companies pay only for energy that is delivered, and therefore the developer bears all of the risk associated with under-delivery of energy.

LOUISVILLE GAS AND ELECTRIC COMPANY
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Response to Commission Staff's First Data Request
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Case No. 2009-00353

Question No. 5

Witness: Douglas Keith Schetzel

Q-5. Refer to page 10, paragraph 20, of the Application.

a. Provide a general definition of special-purpose entities as the term is applied here to Grand Ridge I and Grand Ridge IV.

b. Provide the names of the parties and location of the relevant wind power facilities of the other wind energy purchased power agreements Joint Applicants have studied.

A-5.

a. Special-purpose entities are commonly used to own a project and all associated assets (including title to the particular assets making up the project) and to facilitate financing and isolate risks associated with the project.

b.

1. Appalachian Power Company and Fowler Ridge Wind Farm (Indiana)
2. Commonwealth Edison and (counterparty redacted) (location redacted)
3. Indiana Michigan Power Company and Fowler Ridge Wind Farm (Indiana)
4. Consumers Energy Company and Noble Thumb Windpark I LLC (Michigan)
5. Delmarva Power & Light Company and Bluewater Wind Delaware LLC (Delaware)
6. Delmarva Power & Light Company and AES Armenia Mountain Wind, LLC (Pennsylvania)
7. Public Service Company of New Hampshire and Lempster Wind, LLC (Massachusetts)
8. Idaho Power Company and Telocaset Wind Power Partners, LLC (Oregon)
9. Idaho Power Company and Hot Springs Windfarm LLC (Idaho)

10. Rocky Mountain Power (Pacificorp) and Schwendiman Wind LLC (Idaho)
11. Idaho Power Company and Idaho Winds LLC (Idaho)
12. Idaho Power Company and Pilgrim Stage Station Wind Park LLC (Idaho)
13. Idaho Power Company and Thousand Springs Wind Park LLC (Idaho)
14. Nevada Power Company and Sierra Pacific Power Company (Nevada)
15. Otter Tail Corporation and Langdon Wind, LLC (North Dakota)
16. Minnesota Power and FPL Energy Burleigh County Wind LLC (North Dakota)

In addition to the above-listed contracts, the Applicants also reviewed a form of contract used by E.ON Climate and Renewables, as well as draft contracts submitted by proposed counterparties during negotiations.

LOUISVILLE GAS AND ELECTRIC COMPANY
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Response to Commission Staff's First Data Request
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Question No. 6

Witness: Lonnie E. Bellar / Counsel

Q-6. Refer to page 11, paragraph 20 of the Application. Given that there is neither a national nor Kentucky RPS in place, explain how the Commission can make a determination that Joint Applicants' assumption of the obligations created by the proposed wind power contracts is necessary for Joint Applicants' service to the public.

A-6. The Companies do not claim in paragraph 20 of their Application that the wind power contracts, or the energy the Companies would receive thereunder, are necessary for the Companies to provide electric service under extant environmental regulations; however, the Companies respectfully submit that the applicable standard is not what is absolutely necessary to provide electric service. Under KRS 278.300, the statute discussed in Application ¶ 20, the standard for approving the assumption of an obligation (such as a power purchase contract) is whether the obligation "[1] is for some lawful object within the corporate purposes of the utility, [2] is necessary or appropriate for or consistent with the proper performance by the utility of its service to the public and will not impair its ability to perform that service, and [3] is reasonably necessary and appropriate for such purpose."[1] The Companies believe the wind power contracts as a trial renewable effort meet this three-part standard.

1. To the Companies' knowledge, there is no law prohibiting their entry into the wind power contracts, and it is a corporate purpose of the Companies to provide service to their customers in a reasonable and

[1] KRS 278.300(3).

prudent manner, such as by anticipating and preparing to reduce the financial impact of possible environmental requirements that appear likely to become law.

2. The Companies believe it is both "appropriate for ... [and] consistent with the proper performance by the utility of its service to the public" to hedge against the likelihood of increased future costs of environmental compliance. Entering into power purchase agreements like the wind power contracts is a rational means of hedging such risk. Though the wind power contracts, if approved, would provide energy at costs higher than alternatives based on a traditional least-cost analysis, they would likely prove to be cost-effective if a state or national renewable portfolio standard ("RPS") took effect in the near future, which now seems likely. And entering into the wind power contracts "will not impair [the Companies'] ability to perform that service" if the Commission approves the cost recovery mechanism the Companies requested in their Application.

3. Given that it is a lawful and appropriate purpose of the Companies to anticipate and hedge against a highly likely environmental regulation like a state or national RPS, entering into the wind power contracts is indeed "reasonably necessary and appropriate for such purpose."

For these reasons, the Companies believe the wind power contracts meet the standard discussed in paragraph 20 of their Application, KRS 278.300, which is the appropriate standard for the Commission to apply in determining whether to approve the wind power contracts.

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Question No. 7

Witness: Charles R. Schram

Q-7. Refer to the table on page 12 of the Application. Provide the workpapers, including all assumptions, used to develop the amounts included in the table. Include a narrative description of the assumptions and calculations.

A-7. A projection of the net impact of including these wind contracts in the resource portfolio was obtained by comparing two runs of the Companies' production cost model (PROSYM), for native load only: the first including only those resources included in the company's most recent update to its (indicative) least-cost capacity expansion plan, and a second run including 109.5 MW of wind resources – with a profile of generation consistent with the given wind profile. To maximize the use of the wind energy available under the proposed contract, the Grand Ridge PPA was treated as a 'must-run' resource.

The most recent assessment of the least-cost expansion plan for the Companies is shown in the following table:

Capacity additions (2010 MTP load forecast)	
2010	
2011	
2012	
2013	
2014	
2015	
2016	
2017	CCCT (475 MW)
2018	
2019	

2020	
2021	
2022	CCCT (475 MW)
2023	
2024	CCCT (475 MW)
2025	
2026	
2027	
2028	
2029	CCCT (475 MW)

It has been assumed that since the wind resources offer minimal firm capacity, there is no difference between these two runs regarding the timing or cost of generating capacity additions to the system over the period under review (to 2030). The only impact of adding the wind resources is to reduce thermal generation by an equivalent amount. The net incremental cost associated with the wind contracts – present-valued over the life of the contracts – represents the difference between the contractual cost of the wind-based energy and the dispatch cost of the (displaced) thermal energy (including fuel and emissions components).

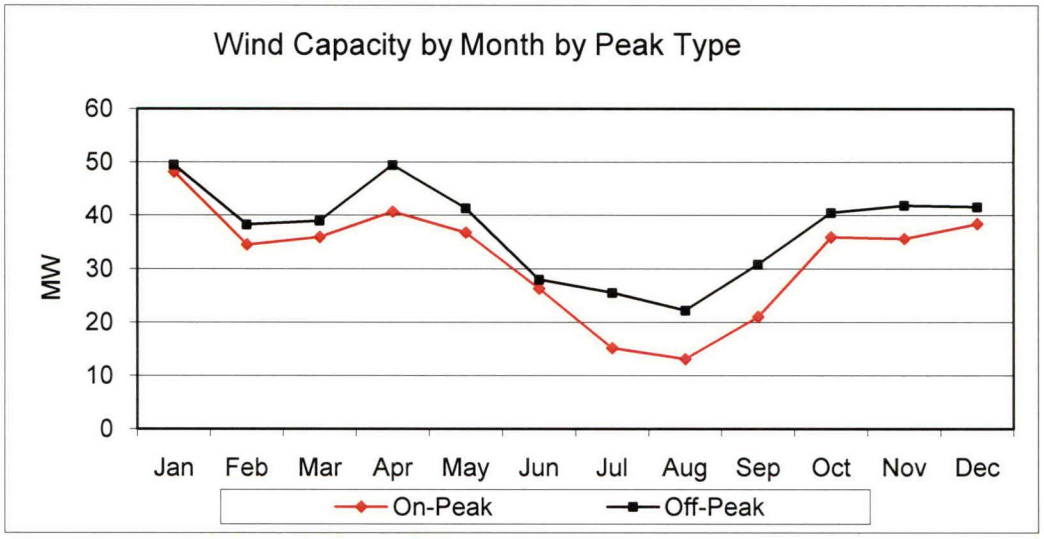
The incremental annual production costs associated with incorporating the wind contracts are shown below (in $ millions):

	Wind generation (GWh)	Incremental production cost (inc emissions)	Transmission cost	Congestion cost	Total incremental cost
2010	258	9.6	2.0	0.5	12.2
2011	295	11.9	2.2	0.6	14.7
2012	295	11.3	2.2	0.6	14.2
2013	295	10.3	2.3	0.6	13.1
2014	295	7.8	2.3	0.6	10.7
2015	295	7.3	2.3	0.6	10.2
2016	295	6.6	2.3	0.6	9.6
2017	295	6.7	2.3	0.6	9.6
2018	295	8.0	2.4	0.6	11.0
2019	295	5.8	2.4	0.6	8.8
2020	295	5.4	2.4	0.7	8.5
2021	295	5.5	2.4	0.7	8.6
2022	295	6.1	2.5	0.7	9.2
2023	295	6.0	2.5	0.7	9.2
2024	295	6.8	2.5	0.7	10.0
2025	295	6.3	2.5	0.7	9.5
2026	295	4.4	2.6	0.7	7.7
2027	295	3.4	2.6	0.7	6.7

2028	295	4.5	2.6	0.7	7.8
2029	295	5.8	2.6	0.7	9.2
2030	36	3.8	0.2	0.1	4.0
	5,890	$143.3	48.3	13.0	204.5
NPV @ 7.8%		$78.6	$23.3	$6.3	$108.2

The assumed performance characteristics of the Grand Ridge development are as follows:

Peak capacity: 109.5 MW
Annual generation: 294.5 GWh (delivered into the LG&E/KU system)
Contract term: 2/2010 – 1/2030 (20 years)
Wind energy cost: per contract terms
Discount rate (for PV calculation): 7.78%
Transmission cost: $20/kW-yr (1% annual escalation)
Congestion cost: $2/MWh (1% annual escalation)
Seasonal availability:



The performance characteristics of the other generation resources available to the Companies are broadly as outlined in Appendix A to the 2008 IRP (Vol III), with updates for current fuel prices.

Enclosed on a CD are the workpapers for this analysis, which are being filed under Petition for Confidential Protection.

LOUISVILLE GAS AND ELECTRIC COMPANY
AND
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Response to Commission Staff's First Data Request
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Question No. 8

Witness: Charles R. Schram

Q-8. Refer to the answer at the top of page 6 of the Testimony of Lonnie E. Bellar ("Bellar Testimony"). Explain how the "dependable combined summer peak capacity" of the proposed contracts was determined.

A-8. The dependable peak capacity of any single wind turbine is zero: there is no assurance that there will be any generation from that unit at the time of system peak demand. Wind *farms* – developments of tens or hundreds of wind turbines over a fairly broad footprint – offer a slightly greater assurance of generation from at least some of the turbines most of the time, but again it is likely that the generation profiles of individual turbines within the farm are fairly similar (i.e. that output levels are highly correlated). Based on the wind profile by the developer for the Grand Ridge site the Companies have derated the capacity of the site to reflect expected availability at the time of system peak demand (in summer evenings). Only 13.1 MW of capacity is expected to be available at these times – a proportion of the contract capacity which is consistent with the de-rating of wind capacity applied by PJM in system planning studies.

LOUISVILLE GAS AND ELECTRIC COMPANY
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Response to Commission Staff's First Data Request
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Question No. 9

Witness: Lonnie E. Bellar

Q-9. Refer to the answer at the bottom of page 6 of the Bellar Testimony. Describe, generally, the nature of the production tax credits ("PTCs") for which Joint Applicants will be obligated to compensate Invenergy under the proposed contracts.

A-9. The PTC provides a tax credit per kWh of electricity sold by a taxpayer from a qualifying facility to an unrelated person. For facilities selling electricity generated from wind, the PTC base rate, which was established in 1992, is 1.5 cents per kWh. This base rate is adjusted each year for inflation. For 2009, the adjusted PTC rate is 2.1 cents per kWh.

LOUISVILLE GAS AND ELECTRIC COMPANY
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Response to Commission Staff's First Data Request
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Case No. 2009-00353

Question No. 10

Witness: Douglas Keith Schetzel

Q-10. Refer to page 10 of the Bellar Testimony, specifically, the discussion which indicates Joint Applicants expect to contract for firm point-to-point transmission service for the full nameplate capacity of the wind farms. Given the nature of wind energy generation, explain why Joint Applicants believe firm transmission service for the full nameplate capacity of the wind farms is appropriate and cost-effective.

A-10. In order to determine the amount and type of transmission service they should request, the Joint Applicants studied situations in which they assumed that Grand Ridge I would perform at (a) 90% capacity and (b) 100% capacity, using actual data from October 2008 through September 2009 (Grand Ridge IV was not operational during that time).

During the period from October 2008 through September 2009, the Grand Ridge wind farm output exceeded 90% of its nameplate capacity for 743 hours. If Joint Applicants had purchased firm point-to-point transmission for only 90% of the Grand Ridge wind farm nameplate capacity during that period of time, they would have saved approximately $198,000 per year in PJM transmission fees (9,900 kW times $20/kW/year).

Joint Applicants further assumed that without firm transmission, they would not have received the remaining 10% of power from Grand Ridge. This assumption was based on two factors: (1) unless firm transmission is studied and approved, transmission constraints are more likely to occur and, in this case, preclude the availability of transmission service for the remaining 10% of Grand Ridge's capacity; and (2) during the high wind conditions that could produce 100% of the nameplate capacity, transmission curtailments are likely to occur unless firm point-to-point transmission for that amount of capacity is studied and necessary

upgrades are installed. In other words, PJM is likely to have curtailed 7,356 MWh (743 hours times 9.9 MW, which is 10% of Grand Ridge's capacity) of Grand Ridge energy due to transmission constraints that would not have existed if firm transmission had been obtained.

In the scenario above, the Joint Applicants would have paid PJM less money by purchasing firm transmission for 90% rather than 100% of Grand Ridge's capacity, yet the $27/MWh potential savings in transmission fees would have been far less than the exposure Joint Applicants would have had for not taking the remaining 10% of output. Under the PPAs, Joint Applicants would have been required to pay Invenergy an amount equal to the energy price, plus production tax credits ("PTCs"), plus a tax gross up payment, less any amount Invenergy might receive through mitigation (which mitigation could have been achieved only if transmission service was available into PJM).

An additional factor considered when the Company analyzed the benefits of firm transmission service is the fact that the nature of the transmission service impacts the cost and reliability of delivering the wind power to native load. If the Companies use point-to-point transmission service within PJM, they will be entitled to use network integration transmission service ("NITS"), which is the least expensive, reliable service for delivering power to their retail customers. If, however, the Companies do not reserve firm point-to-point transmission service within PJM for a portion of the capacity, and non-firm point-to-point transmission service in PJM is available, then the Companies would be required to use either firm point-to-point transmission service or secondary network service for delivery of the power from PJM to the Companies' retail customers. Both of those services are more expensive than NITS, and secondary network service is less reliable.

LOUISVILLE GAS AND ELECTRIC COMPANY
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Response to Commission Staff's First Data Request
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Case No. 2009-00353

Question No. 11

Witness: Douglas Keith Schetzel

Q-11. Refer to page 25, Section 5.09, Forecasting, of the Grand Ridge contract. Describe the extent to which Joint Applicants have analyzed or reviewed the reliability of similar forecasting that has been performed historically by Invenergy or other entities affiliated with Grand Ridge.

A-11. The Companies reviewed the annual capacity factor projections and the monthly profiles for reasonableness by comparing the Invenergy projections to projections from other wind farms in the same geographic region. Forecasting wind farm production is an evolving science and the Companies plan to compare Invenergy's forecasted production with actual production to determine the reliability of Invenergy's production forecasts.

LOUISVILLE GAS AND ELECTRIC COMPANY
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Question No. 12

Witness: Douglas Keith Schetzel

Q-12. Refer to page 28, Section 6.02(f) of the Grand Ridge contract. Describe, generally, the types of actions Joint Applicants may consider reasonably necessary to enable Grand Ridge to receive the full benefits of PTCs associated with the facility.

A-12. Section 6.02(f) is in the nature of a further assurance provision and does not contemplate any specific actions that Joint Applicants would need to take. An example of a possible future action might arise if Invenergy were to be audited for claiming PTCs on its tax returns. In that case, it is possible that Invenergy could request certification from the Joint Applicants as to the amount of electrical energy purchased pursuant to the PPAs.

LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Data Request
Dated December 21, 2009

Case No. 2009-00353

Question No. 13

Witness: Douglas Keith Schetzel

Q-13. Refer to page 47, Section 12.01, of the Grand Ridge Contract. Given that Grand Ridge Energy LLC is organized under Delaware law, its wind energy facilities are located in Illinois, and Joint Applicants are organized under Kentucky law, explain why the contract is executed under the laws of the state of New York.

A-13. New York law is often used as a neutral choice in cases where counterparties are located in different states. Additionally, New York courts are accustomed to considering issues found in the PPAs.

LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Data Request
Dated December 21, 2009

Case No. 2009-00353

Question No. 14

Witness: Lonnie E. Bellar

Q-14. Refer to pages 49-52, Sections 12.07 and 12.14, of the Grand Ridge contract. Explain whether Commission personnel, under these sections, would be allowed to accompany Joint Applicants when auditing the books of Grand Ridge.

A-14. The Companies would not object to participation by Commission personnel in any audit of Grand Ridge, subject to the agreement of Grand Ridge and so long as the confidentiality provisions are honored.

LOUISVILLE GAS AND ELECTRIC COMPANY
AND
KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Data Request
Dated December 21, 2009

Case No. 2009-00353

Question No. 15

Witness: Douglas Keith Schetzel

Q-15. Refer to page 8 of the Grand Ridge IV contract. Explain why PTCs are described in greater detail, with additional provisions pertaining to investment tax credits and payments under the American Recovery and Reinvestment Act of 2009, than what is contained in the Grand Ridge contract.

A-15. The different American Recovery and Reinvestment Act of 2009 (the "ARRA") language in the Grand Ridge IV contract was not included in the Grand Ridge contract because the Grand Ridge project was not eligible for the alternative benefits provided under the ARRA. The ARRA allows for certain eligible wind projects to elect to receive either investment tax credits ("ITCs") or a grant from the Department of Treasury in lieu of PTCs. In order to be eligible, however, a wind project cannot have been placed in service before 2009. Because the Grand Ridge project was placed in service before 2009, the alternative ARRA language was not included in the definition of "PTCs" in the Grand Ridge contract.

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Response to Commission Staff's First Data Request
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Case No. 2009-00353

Question No. 16

Witness: Douglas Keith Schetzel

Q-16. Refer to page 24, Section 5.09, Forecasting, of the Grand Ridge IV contract. Describe the extent to which Joint Applicants have analyzed or reviewed the reliability of similar forecasting that has been performed historically by Invenergy or other entities affiliated with Grand Ridge IV.

A-16. The Companies reviewed the annual capacity factor projections and the monthly profiles for reasonableness by comparing the Invenergy projections to projections from other wind farms in the same geographic region. Forecasting wind farm production is an evolving science and the Companies plan to compare Invenergy's forecasted production with actual production to determine the reliability of Invenergy's production forecasts.

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Question No. 17

Witness: Douglas Keith Schetzel

Q-17. Refer to page 27, Section 6.02(f), of the Grand Ridge IV contract. Describe, generally, the types of actions Joint Applicants may consider reasonably necessary to enable Grand Ridge IV to receive the full benefits of PTCs associated with the facility.

A-17. Section 6.02(f) is in the nature of a further assurance provision and does not contemplate any specific actions that Joint Applicants would need to take. An example of a possible future action might arise if Invenergy were to be audited for claiming PTCs on its tax returns. In that case, it is possible that Invenergy could request certification from the Joint Applicants as to the amount of electrical energy purchased pursuant to the PPAs.

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KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Data Request
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Case No. 2009-00353

Question No. 18

Witness: Douglas Keith Schetzel

Q-18. Refer to page 45, Section 12.01, of the Grand Ridge IV contract. Given that Grand Ridge Energy IV LLC is organized under Delaware law, its wind energy facilities are located in Illinois, and Joint Applicants are organized under Kentucky law, explain why the contract is executed under the laws of the state of New York.

A-18. New York law is often used as a neutral choice in cases where counterparties are located in different states. Additionally, New York courts are accustomed to considering issues found in the PPAs.

LOUISVILLE GAS AND ELECTRIC COMPANY

AND

KENTUCKY UTILITIES COMPANY

Response to Commission Staff's First Data Request
Dated December 21, 2009

Case No. 2009-00353

Question No. 19

Witness: Lonnie E. Bellar

Q-19. Refer to pages 47-51, Sections 12.07 and 12.14, of the Grand Ridge IV contract. Explain whether Commission personnel, under these sections, would be allowed to accompany Joint Applicants when auditing the books of Grand Ridge IV.

A-19. The Companies would not object to participation by Commission personnel in any audit of Grand Ridge IV, subject to the agreement of Grand Ridge IV and so long as the confidentiality provisions are honored.