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April 3, 2012

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PUBLIC SERVICE
COMMISSION

VIA HAND DELIVERY

Jeff DeRouen
Executive Director
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, KY 40601

RE: Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for a Certificate of Public Convenience and Necessity for the Construction of a Combined Cycle Combustion Turbine at the Cane Run Generating Station and the Purchase of Existing Simple Cycle Combustion Turbine Facilities from Bluegrass Generation Company, LLC in LaGrange, Kentucky
Case No. 2011-00375

Dear Mr. DeRouen:

Enclosed please find and accept for filing the original and ten copies of Louisville Gas and Electric Company and Kentucky Utilities Company's Post-Hearing Brief in the above-referenced matter. Please confirm your receipt of this filing by placing the stamp of your Office with the date received on the enclosed additional copies and return them to me via our office courier.

Thank you.

Yours very truly,

W. Duncan Crosby III

WDC:ec
Enclosures
cc: Parties of Record

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COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

JOINT APPLICATION OF LOUISVILLE GAS)
AND ELECTRIC COMPANY AND KENTUCKY)
UTILITIES COMPANY FOR A CERTIFICATE)
OF PUBLIC CONVENIENCE AND NECESSITY)
AND SITE COMPATIBILITY CERTIFICATE)
FOR THE CONSTRUCTION OF A COMBINED)
CYCLE COMBUSTION TURBINE AT THE)
CANE RUN GENERATING STATION AND THE)
PURCHASE OF EXISTING SIMPLE CYCLE)
COMBUSTION TURBINE FACILITIES FROM)
BLUEGRASS GENERATION COMPANY, LLC)
IN LAGRANGE, KENTUCKY)

CASE NO. 2011-00375

JOINT APPLICANTS' POST-HEARING BRIEF

Respectfully submitted,



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Table of Contents

	<u>Page</u>
INTRODUCTION	1
PROCEDURAL HISTORY.....	4
OVERVIEW OF PROPOSED PROJECT.....	5
ARGUMENT.....	7
I. THE COMPANIES’ REQUEST FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY SHOULD BE GRANTED.	7
A. Cane Run 7 and the Bluegrass Facilities Are Needed to Allow the Companies to Replace the Capacity that Must be Retired.....	9
1. The Companies’ load forecast	10
2. The SC-NRDC’s Assertion that the Companies’ Projected Capacity-Demand Gap Might Be Reduced by Additional Energy Efficiency Programs Is Unsupported and Does Not Affect the Need for the Proposed Gas-Fired Units on the Timetable the Companies Have Proposed	12
B. The Construction of Cane Run 7 and the Purchase of the Bluegrass Facilities Will Not Create a Wasteful Duplication of Facilities	15
C. Cane Run 7 and the Bluegrass Facilities Are the Least-Cost Solution.....	16
1. The Companies’ Resource Assessment Process and Results	17
2. There Are Good Operational Reasons to Build the Proposed NGCC at the Existing Cane Run Site	18
3. The Bluegrass Facilities Are a Particularly Good Value for the Companies.....	19
4. The SC-NRDC’s Criticisms of the Resource Assessment Are Not Reasonable	20
II. THE COMPANIES’ APPLICATION FOR A SITE COMPATIBILITY CERTIFICATE SHOULD BE GRANTED.....	26
CONCLUSION.....	26

INTRODUCTION

This case involves the Joint Application of Louisville Gas and Electric Company (“LG&E”) and Kentucky Utilities Company (“KU”) (collectively, the “Companies”) for a Certificate of Public Convenience and Necessity (“CPCN”) and a Site Compatibility Certificate for the construction of a natural gas combined cycle (“NGCC”) generating facility at the Companies’ Cane Run Generating Station, and for the purchase of Bluegrass Generation Company, LLC’s facilities in LaGrange, Kentucky, which include three natural gas simple cycle combustion turbines (“SCCT”).

In March 2011, the Environmental Protection Agency (“EPA”) issued a proposed rule aimed at reducing hazardous air pollutants from new and existing coal-and oil-fired electric utility steam generating units (“HAPs Rule,” now called the Mercury and Air Toxics Rule, “MATs Rule”). The EPA issued the final MATs Rule on December 21, 2011, which was published in the Federal Register on February 16, 2012.¹ The EPA’s National Ambient Air Quality Standards (“NAAQS”) will further restrict NO_x and SO₂ emissions beginning in 2016 and 2017.² In addition, the EPA issued its final Cross-State Air Pollution rule (“CSAPR”) in August 2011, which provides limited allowances for NO_x and SO₂ emissions starting in 2012.³

To comply with the foregoing regulations at all but one of their coal-fired steam generating units (Trimble County Unit 2, which already has all of the requisite environmental controls), the Companies must either install additional emission controls or retire and replace the capacity. The Companies evaluated these decisions at each of their coal-fired steam generating units in their comprehensive analysis that identified the recommended projects and courses of

¹ 77 Fed. Reg. 9,304 (Feb. 16, 2012) (to be codified at 40 C.F.R. pts. 60 and 63). Available at: <http://www.gpo.gov/fdsys/pkg/FR-2012-02-16/pdf/2012-806.pdf>.

² NO_x NAAQS, 75 Fed. Reg. 6,474 (Feb. 9, 2010); SO₂ NAAQS, 75 Fed. Reg. 35,520 (Jun. 22, 2010).

³ 76 Fed. Reg. 48,208 (Aug. 8, 2011) (to be codified at 40 C.F.R. pts. 51, 52, 72, 78, and 97). Available at: <http://www.gpo.gov/fdsys/pkg/FR-2011-08-08/pdf/2011-17600.pdf>.

action (“2011 Air Compliance Analysis”) which was submitted to the Commission in June 2011 in their applications under KRS 278.183.⁴ Given the operating characteristics, age, and size of the units, the Companies determined that the cost of additional emission controls on their coal-fired units at the Cane Run, Green River, and Tyrone plants cannot be justified. Through the 2011 Air Compliance Analysis, the Companies determined that these units should be retired when required by the applicable environmental regulations. The decisions to retire these units have not been disputed by any party. With the retirements of the Cane Run, Green River and Tyrone coal-fired steam generating units, which have a combined capacity of 797 MW, and projected increases in demand, the Companies will have a capacity shortfall in 2016 of 877 MW.

In April 2011, the Companies filed their 2011 Integrated Resource Plan (“2011 IRP”) with the Commission.⁵ The 2011 IRP provides a detailed summary of the Companies’ plan to meet their future energy requirements within their service territories at the lowest possible cost consistent with reliable supply. Like the 2011 Air Compliance Analysis, the 2011 IRP assumed that the Green River, Tyrone and Cane Run coal-fired steam generating units would be retired at the end of 2015. The Companies’ capacity needs through 2016, as identified in the 2011 IRP, are summarized in the table below.

⁴ Case Nos. 2011-00161 and 2011-00162.

⁵ Case No. 2011-00140.

LG&E/KU Resource Summary

	2012	2013	2014	2015	2016	2017	2018
Forecasted Peak Load	7,210	7,356	7,477	7,603	7,654	7,760	7,897
Peak Reductions ⁶	390	442	501	544	585	626	664
Total Demand	6,821	6,915	6,976	7,059	7,070	7,135	7,234
Existing Resources	8,002	8,006	8,001	7,996	7,969	7,970	7,970
Retirements					(797)	(797)	(797)
Firm Purchases (OVEC)	154	152	152	152	152	152	152
Total Supply	8,156	8,158	8,153	8,148	7,324	7,325	7,325
16% Reserve Requirements	1,091	1,106	1,116	1,129	1,131	1,142	1,157
Difference from Target	243	137	61	-40	-877	-952	-1066
Reserve Margin	19.6%	18.0%	16.9%	15.4%	3.6%	2.7%	1.3%

To meet the shortfalls projected above, the Companies submitted a request for proposals (“RFP”) in December 2010 for electric energy and capacity. Responses to the RFP included power purchase agreements and asset sale offers for gas, coal, nuclear, wind, biomass and solar technologies. The Companies’ analysis of the RFP responses was completed in two phases. At the conclusion of that process, the Companies determined that the least-cost alternative for complying with the aforementioned EPA regulations and meeting the 2016 capacity and energy need is to build an NGCC facility at the Companies’ Cane Run station (“Cane Run 7”) and to purchase Bluegrass Generation Company, LLC’s existing SCCT facilities (“Bluegrass Facilities”) in LaGrange, Kentucky. A detailed description of the foregoing process is set forth in the 2011 Resource Assessment attached as an exhibit to David Sinclair’s September 15, 2011 Direct Testimony in this matter.

The sworn testimony and other evidence of record in this matter prove, without question, that the public convenience and necessity require approval of the Companies’ proposal in this case. Therefore, the Companies request issuance of the requested CPCN.

⁶ Peak reductions include the impacts of interruptible demands and demand-side management programs.

PROCEDURAL HISTORY

The Companies filed their Joint Application, together with supporting testimony and exhibits, on September 15, 2011. The Kentucky Public Service Commission (“Commission”) accepted the Joint Application, and issued a no-deficiency letter relating thereto, on September 30, 2011.

The Commission granted full intervention in this proceeding to: the Kentucky Attorney General, by and through his Office of Rate Intervention (“AG”); the Kentucky Industrial Utility Customers, Inc. (“KIUC”); and the Sierra Club and Natural Resources Defense Council (“SC-NRDC”). At the Companies’ request, the Commission held an informal conference in this proceeding on October 11, 2011, which was attended by Commission Staff, the Companies, and all intervenors except for SC-NRDC because they had not yet intervened. The Commission subsequently entered an order establishing a procedural schedule on October 18, 2011.

Pursuant to the Commission’s procedural schedule, the Companies, Commission Staff and SC-NRDC engaged in discovery. The AG and KIUC issued no discovery and they filed no testimony. SC-NRDC is the only intervenor who filed direct testimony and they did so on December 20, 2011. The Companies filed their rebuttal testimony on February 3, 2012.

The Commission held a public hearing for the purpose of receiving public comment on March 8, 2012. Notably, none of the members of the public who spoke at the hearing opposed retiring the coal-fired units at Cane Run, and a number spoke in favor of building Cane Run 7.⁷

An evidentiary hearing occurred before the Commission on March 20, 2012. Following the hearing, the Companies filed their response to the single hearing data request that was issued at the March 20, 2012 hearing. This brief is filed pursuant to the schedule established at the conclusion of the Commission’s evidentiary hearing.

⁷ Minutes of the Information Session and Public Hearing (Mar. 8, 2012).

OVERVIEW OF PROPOSED PROJECT

The Companies have proposed the construction of a new NGCC utilizing F-class gas turbine technology at the Cane Run Station. They have also proposed the purchase of existing Bluegrass Generation facilities in Oldham County, Kentucky which include three natural gas simple cycle combustion turbines. The Bluegrass Facilities are already in operation.

The Companies' existing Cane Run site contains 510 acres in southwestern Jefferson County and is suitable for Cane Run 7.⁸ The Site Assessment Report attached to Mr. Revlett's testimony shows that the site complies with the requirements of KRS 278.216.⁹ There is existing infrastructure at the Cane Run site that may be used for Cane Run 7, and the new facility will interconnect with existing transmission lines.¹⁰ The use of the existing Cane Run site also minimizes development risk associated with air permitting. Although Cane Run 7 will still be required to obtain an air permit and to comply with all applicable environmental requirements, the utilization of the existing emissions of Cane Run Units 4, 5 and 6 will allow the proposed unit to effectively "net out" of the Prevention of Significant Deterioration air permitting process that would be required for a new "green field" site.¹¹

When compared to existing facilities at Cane Run, emission of particulate matter and NO_x will be greatly reduced, while emissions of SO₂ will be all but eliminated. As Jefferson County is proposed to be classified as non-attainment for SO₂, the county will gain significant ground toward meeting the new National Ambient Air Quality Standard for SO₂. The reduction in SO₂ and NO_x emissions are also incorporated into meeting the Companies' requirements

⁸ John N. Voyles Direct Testimony at 4.

⁹ See Exhibit GHR-2 to Mr. Revlett's Direct Testimony

¹⁰ Voyles Direct Testimony at 4.

¹¹ *Id.*

under the final Cross-State Air Pollution Rule allowance allocations.¹² Also, NGCC technology does not produce combustion residuals that would require the same landfill needs as coal-fired technology.

The Companies have concluded that the least cost option for environmental compliance is to construct Cane Run 7. With timely regulatory approval and receipt of the construction permits, completion of Cane Run 7 construction is expected to occur prior to the end of 2015.¹³

As described above, taking into consideration the contemplated retirements and the Companies' projected load forecast, the Companies will have a capacity shortfall of 877 MW in 2016. In addition to Cane Run 7, the Companies determined that the least cost option to meet the shortfall is to purchase existing generation assets from Bluegrass Generation in Oldham County. The Companies have submitted a copy of the executed Asset Purchase Agreement for those assets.¹⁴

The Bluegrass Facilities entered service in June of 2002 and are located on a 60-acre site in Oldham County.¹⁵ The assets consist of three Siemens-Westinghouse 501 FD2 combustion turbines (F Class) operating in simple cycle as peaking units. The combustion turbines provide 495 MW of summer capacity. Since commercial operation began, each unit has accumulated approximately 1,000 operating hours and 340 starts.¹⁶ At the proposed purchase price of \$110 million, the resulting unit price for summer capacity is \$222/kW. That price is significantly cheaper than the comparable \$850/kW estimate for constructing summer capacity at a green field site in today's dollars.¹⁷ With timely regulatory approval from this Commission and the Federal

¹² *Id.* at 6.

¹³ *Id.* at 7.

¹⁴ See Exhibit JNV-1 to Voyles Testimony. The executed version of the Asset Purchase Agreement was filed in this matter on September 20, 2011.

¹⁵ Voyles Direct Testimony, p. 11.

¹⁶ *Id.*

¹⁷ *Id.* at 12.

Energy Regulatory Commission, the Companies will be in a position to complete the purchase in summer 2012 in accordance with the terms of the Asset Purchase Agreement.

ARGUMENT

I. THE COMPANIES' REQUEST FOR A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY SHOULD BE GRANTED.

The statutory requirement for certificates of public convenience and necessity is contained in KRS 278.020(1), which states:

No person, partnership, public or private corporation, or any combination thereof shall . . . begin the construction of any plant, equipment, property or facility for furnishing to the public any of the services enumerated in KRS 278.010 . . . until that person has obtained from the Public Service Commission a certificate that public convenience and necessity require the service or construction

Kentucky's highest court has construed "public convenience and necessity" to mean: (1) there is a need for the proposed facility or service; and (2) the new facility or service will not create wasteful duplication.¹⁸

A finding of "need" is supported where there has been a showing of "a substantial inadequacy of existing service" due to a deficiency of service facilities beyond what could be supplied by normal improvements in the ordinary course of business.¹⁹ "Substantial inadequacy of existing service" is not required to be a currently existing deficiency, but rather may be a deficiency expected a number of years into the future "in view of the long range planning necessary in the public utility field."²⁰ The prevention of "wasteful duplication" has been interpreted to mean not only a physical multiplicity of facilities, but also an avoidance of "excessive investment in relation to productivity or efficiency."²¹ In considering the efficiency

¹⁸ Kentucky Utilities Co. v. Public Service Commission, 252 S.W.2d 885, 890 (Ky. 1952).

¹⁹ *Id.*

²⁰ Kentucky Utilities Co. v. Public Service Commission, 390 S.W.2d 168, 171 (Ky. 1965).

²¹ Kentucky Utilities Co., 252 S.W.2d at 890.

of a proposed project, the Commission is not restricted to making a close comparison of the rates that would result from various options.²² In other words, although cost is a factor, it is not the only factor to be considered. As long as the project is reasonable and feasible, it meets that standard set forth in 278.020(1).²³ The standard has been succinctly described as follows:

As we view it, if the . . . proposal is feasible (capable of supplying adequate service at reasonable rates) and will not result in wasteful duplication, the Public Service Commission is authorized to grant a certificate²⁴

As a public utility in the Commonwealth of Kentucky and regulated by the Commission, the Companies are obligated under KRS 278.030(2) to serve their customers: "Every utility shall furnish adequate, efficient and reasonable service . . ." The Commission has further explicated this requirement in the following regulations, with which the Companies must comply:

(1) 807 KAR 5:041, Section 2 -- "Every utility shall furnish adequate service and facilities at rates filed with the commission, and in accordance with administrative regulations of the commission and applicable rules of the utility. Energy shall be generated, transmitted, converted and distributed by the utility, and utilized, whether by the utility or the customer, in such manner as to obviate undesirable effects upon the operation of standard services or equipment on the utility, its customers and other utilities."

(2) 807 KAR 5:041, Section 5(1) -- "Each utility shall make all reasonable efforts to prevent interruptions of service, and when such interruptions occur shall endeavor to reestablish service with the shortest possible delay. Whenever service is necessarily interrupted or curtailed for the purpose of working on equipment, it shall be done at a time practicable, that will cause least inconvenience to customers, and those customers which may be seriously affected shall be notified in advance, except in cases of emergency."

²² South Central Rural Telephone v Public Service Commission, 453 S.W.2d 257, 259 (Ky. 1970).

²³ Kentucky Utilities Co., 390 S.W.2d at 172 – 173.

²⁴ Kentucky Utilities Co., 390 S.W.2d at 175.

With those statutory and regulatory requirements in place, the Companies had to decide how to best meet their customers' needs in a least-cost fashion given the required retirements. As explained in detail below, the Companies have identified that solution and have demonstrated in this case a need for the construction of Cane Run 7 and purchase of the Bluegrass Facilities. Further, a CPCN is needed now in order to take advantage of the favorable pricing of the Bluegrass Facilities and so that the process of constructing Cane Run 7 can commence in time to ensure compliance with the EPA regulations at issue.

A. Cane Run 7 and the Bluegrass Facilities Are Needed to Allow the Companies to Replace the Capacity that Must be Retired.

The Companies forecast that, with the retirement of the 797 MW of combined capacity of the Cane Run, Green River, and Tyrone coal-fired steam generating units and projected load increases they will have a capacity shortfall in 2016 of 877 MW.²⁵ No party to this proceeding has contested the Companies' projected shortfall, and only the SC-NRDC has contested how to meet it. Failing to fill that gap would severely compromise the Companies' ability to provide reliable service at a reasonable cost, ensuring that any unit failure or planned service outage would send the Companies involuntarily into the market searching for capacity and energy, the prices and availability of which would be largely beyond their control. The other alternative would be to institute service curtailments—rolling blackouts—during times of high demand, which would be an unacceptable outcome. Therefore, the need for the Companies' proposed gas-fired units is real and immediate due to the time required to purchase and build the required facilities.

²⁵ Joint Application ¶ 4.

1. The Companies' load forecast.

The Companies seek to ensure that their load forecast is prepared using sound methods by people who are qualified professionals. There are three practices that the Companies employ to help produce the most reasonable forecast possible:

1. Build and rigorously test statistically and economically sound mathematical models of the load forecast variables;
2. Use quality forecasts of future macroeconomic events, both nationally and in the service territory, that influence the load forecast variable; and
3. Thoroughly review and analyze the model output to ensure that the results make sense based on historical trends and the forecaster's own sense and understanding of long-term trends in electricity usage.²⁶

The Companies used this thorough and disciplined approach to create their 2011 IRP and 2012 joint load forecasts. The 2012 joint load forecast reflects a more recent view of the economy, updated expectations for consumer behavior, and updated forecasts for major customers. But the update from the 2011 IRP forecast does not cause material differences in total energy sales or peak hourly demand as seen in the table below, which compares combined company energy sales and peak demand before the impact of demand-side management and energy efficiency programs ("DSM-EE") and interruptible load.²⁷

²⁶ Sinclair Testimony at 5.

²⁷ Sinclair Testimony at 6.

Year	Combined Company Energy Sales (GWh)		Percent Change	Combined Company Peak Demand (MW)		Percent Change
	2011 IRP	2012 MTP		2011 IRP	2012 MTP	
2012	34,511	34,113	-1.15%	7,210	7,319	1.51%
2013	35,076	34,543	-1.52%	7,356	7,409	0.72%
2014	35,530	34,835	-1.96%	7,477	7,504	0.37%
2015	36,097	35,256	-2.33%	7,603	7,583	-0.26%
2016	36,615	35,741	-2.39%	7,654	7,705	0.66%
2017	37,074	36,126	-2.56%	7,760	7,789	0.37%

The methods and models employed to develop the forecasts are widely used in the industry and are similar to what the Commission has reviewed and accepted in the past. The information and assumptions utilized by the models are reasonable because they are derived from reliable and reputable sources. The combination of sound methods and models with quality data produced a forecast of energy and peak demand growth that is consistent with the historical growth experienced by LG&E and KU. Therefore, the Companies' load forecasts are reasonable.²⁸

To determine the resources the Companies will need to meet projected demand, the Companies subtract from projected load the demand savings that will be created by their DSM-EE programs, as shown below:²⁹

	2011	2012	2013	2014	2015	2016	2017
DSM Peak Demand Reduction (MW)	220	272	320	378	418	459	500

In the absence of additional capacity resources, the Companies' load forecasts and projected DSM-EE savings indicate significant capacity shortfalls beginning in 2016 due to the need to retire the coal-fired generating units at the Cane Run, Green River, and Tyrone stations,

²⁸ Sinclair Testimony at 7.

²⁹ Sinclair Testimony at 7.

as well as projected load growth.³⁰ These shortfalls begin at 877 MW in 2016 and increase to over 1,000 MW by 2018.³¹

2. The SC-NRDC's Assertion that the Companies' Projected Capacity-Demand Gap Might Be Reduced by Additional Energy Efficiency Programs Is Unsupported and Does Not Affect the Need for the Proposed Gas-Fired Units on the Timetable the Companies Have Proposed.

The SC-NRDC offered the testimony of Dylan Sullivan (“Mr. Sullivan”) to assert that 145 MW of the Companies’ projected 877 MW capacity-demand gap in 2016 could be filled with additional demand side management/energy-efficiency (“DSM-EE”) programs.³² This assertion is problematic for a host of reasons. First, as Mr. Sinclair explained during the hearing in this case, Mr. Sullivan arrived at his claimed energy and demand savings calculations in a manner contrary to what is usually done when developing DSM-EE programs. Mr. Sullivan simply posited a quantity of annual energy savings to be achieved, and then spread those savings over 75% of the hours in a year to compute a demand reduction.³³ As Mr. Sinclair pointed out at the evidentiary hearing, this top-down approach is the inverse of the correct, bottom-up approach. The correct approach is to understand customers’ energy usage and the demand it creates, craft programs to address that usage and demand, and then determine the likely peak-demand reduction. That reduction may not be terribly great even for programs that produce appreciable energy savings. For example, a residential high-efficiency lighting program may produce attractive energy savings but relatively little peak-demand reduction because peaks tend to occur during times of high sunshine and during working hours when people are not at home.

³⁰ Sinclair Testimony at 13-14.

³¹ Sinclair Testimony at 14.

³² Sullivan Testimony at 7.

³³ Sullivan Testimony at 7. Even Mr. Sullivan acknowledged his approach was not “ideal”: “This is of course not the ideal way to analyze the peak load contribution of energy efficiency programs. [T]o do that I would analyze the load shape of energy savings from incremental measures.” *Id.* n.16.

So Mr. Sullivan's method of arriving at a claimed potential demand reduction is deeply flawed and unrealistic.

Second, Mr. Sullivan made this claim without proposing a single DSM-EE program or modification to the Companies' existing suite of DSM-EE programs. Although he suggested a few broad areas in which possible programs could be developed (some areas of which the Companies already have programs), vague generalities of the kind Mr. Sullivan produced are helpful neither in practice nor analysis.

Third, because Mr. Sullivan did not propose even one DSM-EE program, he did not attempt to calculate the cost or cost-effectiveness of any such program or set of programs to achieve his goal. Without such an analysis—including all four of the Commission-required California Standard Practice Manual tests,³⁴ not just the Total Resource Cost test³⁵—Mr. Sullivan's assertions about the value of unspecified DSM-EE programs are hollow. And the fact that certain Ohio utilities are achieving, or are merely planning to achieve, energy savings more to Mr. Sullivan's liking does not affect the hollowness of his assertions concerning the Companies because, as he acknowledges, electric utilities in Ohio are required by statute to achieve certain aggressive levels of energy and demand savings, which is not true in Kentucky.³⁶

Fourth, Mr. Sullivan gives short shrift to the Companies' considerable achievements in the DSM-EE field. Just last year, the Companies applied for, and the Commission approved in

³⁴ *In the Matter of: The Joint Application of the Members of the Louisville Gas and Electric Company Demand-Side Management Collaborative for the Review, Modification, and Continuation of the Collaborative, DSM Programs, and Cost Recovery Mechanism*, Case No. 97-083, Order at 17-18 (Apr. 27, 1998).

³⁵ See Sullivan Testimony at 6-7 ("A portfolio that as a whole exceeds a Total Resource Cost test ('TRC') of 1 will reduce the service territory's energy bill: the current portfolio TRC of 3.01 shows the Company could likely expand the universe of measures covered by its programs, or market programs more heavily, saving more energy while still staying within the bounds of cost effectiveness").

³⁶ Sullivan Testimony at 5.

November, a significant expansion and extension of their DSM-EE programs.³⁷ As included in the Companies' analysis in this case, the Companies' project that their DSM-EE programs will reduce what would otherwise be their peak load in 2016 by 459 MW.³⁸ For their residential and commercial customer classes, the Companies project that these programs will produce an average of 1% annual energy-consumption reductions from 2012 through 2017,³⁹ in line with what Mr. Sullivan desires.⁴⁰ Indeed, the EPA recently recognized certain of the Companies' DSM-EE efforts by naming the Companies "ENERGY STAR Partners of the Year" for 2011.⁴¹

There are two other noteworthy points concerning Mr. Sullivan's energy-efficiency claims. First, the fact that the Companies' extensive DSM-EE offerings do not include industrial programs arose during the hearing in this case. As Mr. Bellar testified, the Companies are in regular contact with their industrial customers, which are large consumers of electricity and create significant demand. Those customers already have a large incentive to minimize their demand and energy use, and they have indicated to the Companies that they have done so.⁴² They have further indicated that they do not want to be compelled to fund their competitors' energy-efficiency efforts via programs run by the Companies,⁴³ and given that they have a statutory right not to be so compelled,⁴⁴ it seems unlikely that an industrial program would be successful. Moreover, the efforts the Companies' industrial customers have already made to reduce their demand and energy consumption are already reflected in the Companies' load forecasts.

³⁷ *Joint Application of Louisville Gas and Electric Company and Kentucky Utilities Company for Review, Modification, and Continuation of Existing, and Addition of New, Demand-Side Management and Energy-Efficiency Programs*, Case No. 2011-00134, Order (Nov. 9, 2011).

³⁸ Sinclair Testimony at 7.

³⁹ Sinclair Rebuttal Exh. DSS-1.

⁴⁰ See Sullivan Testimony at 5-7.

⁴¹ http://www.energystar.gov/index.cfm?fuseaction=pt_awards.showAwardDetails&esa_id=4735

⁴² Video transcript at 16:02:47 – 16:05:39.

⁴³ Video transcript at 16:02:47 – 16:05:39.

⁴⁴ KRS 278.285(3).

Second and finally, Mr. Sullivan suggested during the hearing that his proposed energy efficiency savings would produce \$900 million of benefits and would delay the need for Cane Run 7 by five years.⁴⁵ But Mr. Sullivan proposed no programs to achieve his hypothetical savings, did not account for the cost (or cost-effectiveness) of programs to achieve such savings, and gave no account for how such savings could be achieved so quickly, particularly given the need for regulatory processes to occur and for programs to be developed and implemented. More importantly, Mr. Sinclair showed conclusively in his rebuttal testimony that, even if Mr. Sullivan's hypothetical DSM-EE savings could be achieved on the timetable he asserts, the most cost-effective means of meeting customers' energy demands is for the Companies to purchase the Bluegrass Facilities this year and to build the Companies' proposed NGCC unit at Cane Run for commercial operation by the beginning of 2016.⁴⁶ Thus, Mr. Sullivan was simply incorrect when he testified that implementing his hypothetical DSM-EE would delay the need for Cane Run 7; Mr. Sinclair's testimony showed that Cane Run 7 would still be needed in 2016 in a world where Mr. Sullivan's desired DSM-EE could be achieved.⁴⁷ In other words, no matter the numerous problems with Mr. Sullivan's assumptions concerning DSM-EE, even if he were completely correct, it would not affect the Companies' application or recommendations in this case.

B. The Construction of Cane Run 7 and the Purchase of the Bluegrass Facilities Will Not Create a Wasteful Duplication of Facilities.

In addition to considering the need for Cane Run 7 and the Bluegrass Facilities, the Commission must also evaluate whether they would result in a duplication of facilities through an unnecessary multiplicity of facilities or an "excessive investment in relation to productivity or

⁴⁵ Video transcript at 16:37:00 – 16:37:34.

⁴⁶ Sinclair Rebuttal Testimony at 6-9.

⁴⁷ See Sinclair Rebuttal Exhibit DSS-9, Workpapers_CONFIDENTIAL\StrategistFiles\12a-2x1_13C_6402x1\2012MTP_SCDISM_12A-2X1_13C_6402X1.REP.

efficiency.”⁴⁸ In this case, none of the intervenors have claimed that a duplication of facilities would occur if Cane Run 7 is built and the Bluegrass Facilities are purchased, and no such claim could reasonably be made based on the evidence of record.⁴⁹

As set forth above, the Companies have established a need for the additional facilities based on their comprehensive joint load forecast. Given the looming retirements and projected load growth, the Companies must have 877 MW of additional capacity by 2016. And, as explained below, the construction of Cane Run 7 and purchase of the Bluegrass Facilities will allow the Companies to meet that capacity shortfall in a least-cost manner. Therefore, they will be providing significant productivity and efficiency in relation to the investment required. For all of those reasons, the construction and purchase on the schedule proposed by the Companies will not result in a wasteful duplication of facilities.

C. Cane Run 7 and the Bluegrass Facilities Are the Least-Cost Solution.

Although cost is not an express component of the determination of whether a proposed project will meet the public convenience and necessity under KRS 278.020, it is well settled in Kentucky that regulated utilities have the obligation to pursue a “least-cost strategy” for meeting future capacity needs.⁵⁰ The Companies take seriously their obligation to provide reliable, low-cost service to their customers, and once the determination was made that additional capacity would be needed to meet demand, the Companies conducted a Resource Assessment to evaluate the options for meeting that need. That Resource Assessment evaluated self-build options

⁴⁸ Kentucky Utilities Co., 252 S.W.2d at 890.

⁴⁹ Indeed, although the SC-NRDC witnesses make points relating to carbon pricing and demand side management programs, Mr. Chernick believes that the Bluegrass Facilities should be purchased. Chernick Testimony at 3 (“Unless the Staff or some other party identifies a problem in the pricing of the Bluegrass purchase, I believe the low price of that purchase and the possibility that the plant would not be available for purchase in the future argue for approval of the Bluegrass transaction.”).

⁵⁰ See 807 KAR 5:058, Section 8; *Re: Small Power Producers*, 60 PUR4th 574 (PSC Order of June 28, 1984).

(construction of the proposed NGCC), shared unit ownership, and market-based Power Purchase Agreements (“PPA”).⁵¹

1. The Companies’ Resource Assessment Process and Results.

The Companies issued a request for proposals (“RFP”) on December 1, 2010, for electric energy and capacity to meet the capacity-demand gap identified in their 2011 IRP and their 2012 load forecast. The RFP did not limit responses to a particular set of fuels or generating technologies. The specified capacity range for the responses was broad: the RFP encouraged offers for firm summer and winter capacity ranging between 1 MW and 700 MW with the caveat that the Companies may procure more or less than 700 MW and may aggregate capacity and energy from multiple parties to meet its needs. The RFP cited the Companies’ preference for longer-term proposals but did not exclude shorter-term proposals. In total, 18 parties responded to the RFP with 50 offers, including power purchase agreements and asset sale offers from gas, coal, nuclear, wind, biomass, and solar technologies.⁵²

The Companies analyzed the RFP responses in two phases. Phase I consisted of an initial screening of the responses through the use of a scoring system (“Phase I Screening”) which evaluated attributes including cost, term, and site viability. The goal of the Phase I Screening process was to select the top candidates for each technology for further evaluation. Contrary to SC-NRDC witness Paul Chernick’s (“Mr. Chernick”) claims,⁵³ the results of the Phase I analysis show that the Companies clearly evaluated numerous wind, biomass, solar, and landfill gas proposals.⁵⁴

⁵¹ Sinclair Testimony at 15-17; 2011 Resource Assessment 11.1 Appx. A.

⁵² Sinclair Testimony at 15.

⁵³ Chernick Testimony at 3 ln. 22-25.

⁵⁴ 2011 Resource Assessment 11.1 Appx. A.

Phase II of the analysis evaluated the top candidates (and various combinations of the top candidates) from the Phase I Screening in more detail. The Phase II Analysis of RFP responses was completed in two parts. In addition to the RFP responses, in the preliminary Phase II Analysis, the Companies evaluated the generic NGCC options considered in the development of the 2011 IRP. For the final Phase II Analysis, the Companies, with the assistance of HDR engineering firm, developed independent cost estimates for three different NGCC configurations. Each estimate assumed the NGCC would be constructed at the Cane Run site. In the final Phase II Analysis, the Companies evaluated these alternatives as well as other options from the preliminary Phase II Analysis.

Based on the RFP and self-build analysis, the Companies determined that the least-cost alternative for meeting the future capacity and energy needs of the Companies is to build a new NGCC at the Cane Run Station (i.e., Cane Run 7) and purchase from Bluegrass Generation its existing SCCT facility in Oldham County, Kentucky (i.e., the Bluegrass Facilities). All of the top five options in both the “No Economy Purchases” and the “Limited Economy Purchases” involved building a new NGCC unit at Cane Run of some size greater than 600 MW and either purchasing or entering into a PPA for the Bluegrass units.⁵⁵ In other words, the Companies’ proposal in this proceeding is well supported by their Resource Assessment.

2. There Are Good Operational Reasons to Build the Proposed NGCC at the Existing Cane Run Site.

Although KU will own a majority of the new Cane Run NGCC and there is existing natural gas infrastructure at the E.W. Brown site, there are good operational reasons to place the new NGCC at Cane Run rather than Brown. First, there is existing electrical transmission and other infrastructure at Cane Run that the new NGCC will be able to use, extending the life of

⁵⁵ 2011 Resource Assessment 11.8 Appx. H.

certain investments at that site. Second, using the existing Cane Run site rather than the Brown site will allow Cane Run 7 to effectively “net out” of the Prevention of Significant Deterioration air permitting process that would be required if the NGCC were placed at Brown. Third, to minimize reliability and transmission system impacts, the existing Cane Run site is preferred over other locations. Finally, having a geographical diversity of gas-fired generating units increases the overall reliability of the Companies’ generating fleet by minimizing the impact of a possible natural gas delivery disruption at a particular site.

3. The Bluegrass Facilities Are a Particularly Good Value for the Companies.

The Bluegrass Facilities are such a good value for the Companies and their customers that even the SC-NRDC’s witness Chernick supports purchasing them,⁵⁶ and Mr. Sullivan says he would not “object” if the Commission found purchasing the units to be “warranted.”⁵⁷ No other party has objected to the Companies’ proposed purchase of the Bluegrass Facilities, and for good reason: the purchase price is very attractive. The cost of the Bluegrass combustion turbines (approximately \$220/kW) is less than 30% of the cost of a new SCCT as set forth in the 2011 IRP. Moreover, the Bluegrass Facilities are available for sale now, and it is unclear whether these units will be available for sale in the future. Furthermore, given the potential for other unit retirements resulting from the proposed and existing EPA regulations, it is reasonable to assume that the demand (and price) for these units could increase over time.

The Bluegrass Facilities are also particularly valuable to the Companies (as compared to other possible purchasers of the units) because they will help the Companies manage reliability risks associated with the Cane Run, Green River, and Tyrone stations as they approach

⁵⁶ Chernick Testimony at 3.

⁵⁷ Responses and Objections from Environmental Intervenors to First Information Request of Commission Staff, Question No. 2(b) (Jan. 23, 2012).

retirement. The units will also help the Companies manage risks while Cane Run 7 is being constructed and placed into operation. The Bluegrass Facilities' placement in the Companies' system therefore makes them uniquely valuable for these reasons, whereas another purchaser would have to pay transmission to move their power from the Companies' system to market.

The Bluegrass Facilities will also help the Companies to manage risk associated with environmental regulations. Under the Clean Air Act, regulated facilities are required to comply with regulations such as the Mercury and Air Toxics rule no later than three years after the effective date of the regulation, with a one-year extension available under certain circumstances. The Companies have reasonably assumed that this period will be extended by one year at the request of the Commonwealth of Kentucky. The Bluegrass Facilities will help the Companies manage the risk of this extension not being granted. A final benefit of purchasing all three Bluegrass units (versus only two) is that it will enable the Companies to defer the need for future capacity by one year.

4. The SC-NRDC's Criticisms of the Resource Assessment Are Not Reasonable.

Through its witness Mr. Chernick, the SC-NRDC appears to be primarily concerned with how the Resource Assessment dealt with the following areas:

- i) fuel price volatility,
- (ii) consideration of renewable generation, and
- iii) future carbon dioxide ("CO₂") regulations and prices.

A) Fuel price volatility

Concerning fuel price volatility, Mr. Chernick cites historical volatility in Northern Appalachian coal costs as evidence fuel price volatility creates "financial and economic stress of (sic) electricity consumers" and therefore that renewable generation such as wind should be

preferred. There are numerous problems with Mr. Chernick's statement. First, the Companies have historically purchased very little Northern Appalachian coal because they are much closer to the coal fields of Kentucky and the Illinois Basin. Second, the Companies do not currently have any long-term Northern Appalachian coal contracts. Third, Northern Appalachian coal prices tend to be more volatile because it is a close substitute for metallurgical coal. Fourth, the Resource Assessment focused on evaluating responses to the Companies' RFP for capacity (of which only one proposal had coal price risk) and self-build options (which were all natural gas-fired) so the impact of coal price volatility on the existing generating fleet is not going to be a material driver of revenue requirement differences between the various RFP and self-build options.

Moreover, the Companies evaluated the Updated Final Phase II options under two different long-term natural gas price forecasts: a higher one prepared by PIRA and a lower one prepared by CERA.⁵⁸ The graph in Rebuttal Exhibit DSS-5 shows these two forecasts as well as one prepared by Synapse (co-authored by Mr. Chernick), a consulting firm that has testified for SC-NRDC in a recent case before this Commission.⁵⁹ The long-term Synapse price forecast falls in between the forecasts used by the Companies. Because "Mr. Chernick has not produced a forecast of future natural gas prices for this proceeding," the Companies cannot quantify the specific impact of Mr. Chernick's general assertions regarding natural gas prices.⁶⁰ Although Mr. Chernick may claim that the Companies did not evaluate various options under high or low natural gas price cases, this graph clearly shows that the PIRA and CERA forecasts the

⁵⁸ See *2011 Resource Assessment*, Table 21, page 27.

⁵⁹ Synapse's AESC 2011 gas price forecast was published in the *Avoided Energy Supply Costs in New England: 2011 Report*, Synapse Energy Economic, Inc., July 21, 2011, Amended August 11, 2011, Exhibit D-9, Appendix D, p. D-10. Available at: <http://www.synapse-energy.com/Downloads/SynapseReport.2011-07.AESC.AESC-Study-2011.11-014.pdf>.

⁶⁰ Responses and Objections from Environmental Intervenors to First Information Request of Louisville Gas and Electric Company and Kentucky Utilities Company, Question No. 11 (Jan. 23, 2012).

Companies used provide a broad range of possible future prices and are above and below a forecast that both Mr. Chernick and his clients have recently endorsed.

B) Natural gas prices and renewable generation

Wind generation is typically more expensive than NGCC technology, especially when accounting for the costs associated with wind's intermittent generating characteristics and low availability at times of peak load. Still, higher natural gas prices would tend to economically benefit wind generation. That is why it is important to note that while Mr. Chernick complains that none of the wind options were evaluated under a different gas price forecast,⁶¹ they were, in fact, evaluated under a gas price forecast that is higher than the one put forward by Synapse as shown in Rebuttal Exhibit DSS-5 and yet were still not least-cost. Furthermore, as shale gas continues to develop and put downward pressure on natural gas prices, this will make it more difficult to develop wind and other renewable resources.⁶² As MIT researchers noted, "[C]heaper gas serves to reduce the rate of market penetration of renewable generation."^{63, 64}

Mr. Chernick further objected that the Companies evaluated none of the RFP wind proposals in the Final Phase II process, so the Companies created an option that replaced Cane Run Unit 7 with nothing but wind proposals from the RFP. The Companies would be 257 MW short in 2016 after Mr. Sullivan's hypothetical DSM-EE and purchasing the Bluegrass Facilities. Because wind conditions are usually very poor at the time of summer peak, only 15 percent of

⁶¹ Chernick Testimony at 12, lines 1-4.

⁶² Finlay, J., "Consultant: Without subsidies, renewables will get priced out by natural gas," *SNL Financial*, October 11, 2011. A copy is attached the Sinclair Rebuttal Testimony as Appendix B.

⁶³ Jacoby, H., O'Sullivan, F, and Paltsev, S., "The Influence of Shale Gas on U.S. Energy and Environmental Policy," *Economics of Energy and Environmental Policy*, Vol. 1, No. 1, January 2012, p. 49. Available at: http://globalchange.mit.edu/files/document/MITJPSPGC_Reprint_12-1.pdf

⁶⁴ "The Future of Natural Gas: An Interdisciplinary MIT Study," MIT Energy Initiative, 2011. Available at: http://web.mit.edu/mitei/research/studies/documents/natural-gas-2011/NaturalGas_Report.pdf.

the nominal capacity rating was assumed to be available to meet this 257 MW shortfall.⁶⁵ To meet this shortfall with wind, the Companies would have had to accept each unique proposal (note that some bidders provided multiple proposals from the same wind project) offered in the RFP but still would have only achieved 123 MW of firm summer capacity despite purchasing 820 MW of nominal capacity.⁶⁶ Even after accepting every unique wind proposal from the RFP, the Companies would still be 134 MW short of their target reserve margin in 2016.⁶⁷ To meet this remaining need and all future resource needs, the Companies used Strategist software to select the least-cost generating portfolio for the remaining years under this “hypothetical DSM-EE/wind” scenario (see Rebuttal Exhibit DSS-3 for a description of this portfolio). The revenue requirements of this new wind-based portfolio were then evaluated using the same process described above and used in the Updated Final Phase II analysis in the Resource Assessment.

This analysis showed that, even with the addition of Mr. Sullivan’s hypothetical DSM-EE and purchasing the largest quantity of wind achievable from the RFP options, Cane Run 7 in 2016 is the least-cost resource to meet the Companies’ customers’ needs. This provides further evidence that constructing Cane Run 7 is the best solution. Not only was Cane Run 7 selected as a least-cost resource, but the hypothetical wind portfolio had significantly higher PVRR than the other three alternatives that included Mr. Sullivan’s hypothetical DSM-EE. Therefore, the specific wind options that were proposed in the Companies’ RFP are not part of the least-cost

⁶⁵ The use of 15 percent of nominal rating at time of peak is actually quite generous because NERC’s “2011 Summer Reliability Assessment” indicated that ERCOT, MISO, and PJM assumed that wind generators have an availability of 8.7%, 12.9%, and 13% respectively. Available at: http://www.nerc.com/files/2011%20Summer%20Reliability%20Assessment_FINAL.pdf, pages 36, 51, and 130.

⁶⁶ This analysis included Response Nos. 6C, 6F, 7D, 8C, 10, 11, and 14 as shown in the *2011 Resource Assessment*, 11.1 Appendix A – Phase I Screening Results, p. 37.

⁶⁷ To maintain consistency with previously filed testimony, figures for reserve margin shortfalls in 2016 are based on the 2011 Load Forecast. The 2012 Load Forecast was used for the rebuttal analysis. The difference between these forecasts in 2016 is relatively minor as shown in Table 23 of the *2011 Resource Assessment*, page 29.

portfolio, and Mr. Chernick's claim that wind energy is a competitive alternative at this time in Kentucky is simply incorrect.⁶⁸

C) Pricing carbon dioxide

Mr. Chernick argues that "it is certainly possible that the costs (for CO₂ emissions) will be positive, and they may be very large," although he fails to specify what "possible" means, the timing of such regulations, and what "positive" means.⁶⁹ Furthermore, Mr. Chernick admits that he has not developed an actual "probability weighted average" of potential future CO₂ emissions costs and has not evaluated the level of CO₂ costs needed to refute the Companies' recommendation in this proceeding.⁷⁰ However, because of his belief, Mr. Chernick feels that the Companies should have included an unknown and unknowable future CO₂ cost in its evaluation of the RFP responses and its self-build options.

But it is not prudent to pay a premium today to address unknown and unknowable future greenhouse gas regulations. If CO₂ regulations of the type contemplated by Mr. Chernick occur at some future date, then the Companies can evaluate the least-cost options (including renewables) at that time based on the state of technology at that time (which renewable advocates claim will only get better and cheaper). Furthermore, many analysts believe that NGCC technology will at a minimum be a bridge to a lower carbon generation future.^{71, 72} In that case, building Cane Run 7 to replace retiring coal generation can be seen as a first step in moving the Companies' generating fleet to one with lower carbon intensity. Finally, there is

⁶⁸ Chernick Testimony at 14, lines 7-8.

⁶⁹ Chernick Testimony at 8 lines 18-19.

⁷⁰ Responses and Objections from Environmental Intervenors to First Information Request of Louisville Gas and Electric Company and Kentucky Utilities Company, Question No. 10 (Jan. 23, 2012).

⁷¹ Scott, M., "Shale Reserves: Gas Seen as Bridge between Old and New Forms of Power," *Financial Times*, November 25, 2011. Available at: <http://www.ft.com/cms/s/0/2c71975e-142f-11e1-b07b-00144feabdc0.html>.

⁷² "The Future of Natural Gas" at 2. See n.25.

even some evidence that today's wind technology is not a least-cost means to comply with CO₂ emission reduction targets.⁷³

Moreover, recent developments from the EPA cast serious doubt upon any chance that CO₂ pricing schemes of the type the SC-NRDC envision will be realized, at least at the federal level. On March 27, 2012, the EPA issued proposed New Source Performance Standards for new, but not existing, fossil-fueled power plants.⁷⁴ (Therefore, the Bluegrass Facilities will not be subject to the proposed new rule.) The proposed standard would affect only those new generating units that do not have permits and start construction within 12 months of the proposal, and would apply a CO₂ emission limit of 1,000 lb/MWh to such units.⁷⁵ Notably, Cane Run 7 is projected to have a CO₂ emission rate of well less than that amount, about 800 lb CO₂/MWh.⁷⁶ Also, the rule appears to have been crafted explicitly to permit NGCC units like the proposed Cane Run 7 to operate without being impacted, as the EPA's Fact Sheet on the proposed rule states: "New natural gas combined cycle (NGCC) power plant units should be able to meet the proposed standard without add-on controls. In fact, based on available data, EPA believes that nearly all (95%) of the NGCC units built recently (since 2005) would meet the standard."⁷⁷ Furthermore, EPA Administrator Lisa Jackson stated during a conference call concerning the proposed rule on the day it was proposed, "We have no plans to address greenhouse-gas emissions from existing plants."⁷⁸ Therefore, there is no reason to believe any reasonably

⁷³ Lea, R., "Electricity Costs: The folly of wind power," Civitas, January 2012, p.19. This study looks at the cost of various technologies to meet the United Kingdom's CO₂ reduction targets. Available at: <http://www.civitas.org.uk/economy/electricitycosts2012.pdf>.

⁷⁴ <http://epa.gov/carbonpollutionstandard/pdfs/20120327proposal.pdf>.

⁷⁵ <http://epa.gov/carbonpollutionstandard/pdfs/20120327factsheet.pdf>.

⁷⁶ Video transcript at 10:52:33 – 10:53:00.

⁷⁷ <http://epa.gov/carbonpollutionstandard/pdfs/20120327factsheet.pdf>.

⁷⁸ http://www.washingtonpost.com/blogs/ezra-klein/post/how-much-carbon-will-the-epas-new-power-plant-rules-actually-cut/2012/03/27/gIQAuaTDeS_blog.html

foreseeable CO₂ regulation will impact the cost-effectiveness of the proposed Cane Run 7 facility or the Bluegrass Facilities.

II. THE COMPANIES' APPLICATION FOR A SITE COMPATIBILITY CERTIFICATE SHOULD BE GRANTED.

In addition to the CPCN discussed above, the Companies are also seeking a Site Compatibility Certificate from the Commission pursuant to KRS 278.216. As discussed in detail above, Cane Run 7 is proposed to be constructed at the existing Cane Run Station, which was designed to accommodate additional generating units. The Companies have submitted a Site Assessment Report as part of their Joint Application in this proceeding, and that report demonstrates that the addition of Cane Run 7 while retiring the existing coal units will not cause a negative impact to local property values, unduly increase traffic or noise, or materially change the visual impacts of the facility from current conditions. None of the intervenors has in any way questioned or challenged the findings of the Site Assessment Report. For all of those reasons, the Companies' request for a Site Compatibility Certificate for Cane Run 7 should be granted.

CONCLUSION

There is no dispute that the Companies will face a significant capacity shortage in the near term—877 MW in 2016—as the coal units at the Cane Run, Green River, and Tyrone generating stations are retired and demand increases over time. Likewise, there is no dispute that the Companies must fill that capacity-demand gap to continue to serve their customers in a safe, reliable, and cost-effective way.

The Companies have presented the Commission with a thorough, reasoned approach, based upon a detailed Joint Load Forecast and a Resource Assessment, which support the purchase of the Bluegrass Facilities and the construction of Cane Run 7 for an in-service date in 2015. Neither the AG nor the KIUC has disputed that the Companies' proposal is reasonable

and cost-effective. The SC-NRDC, on the other hand, appears not to object to the acquisition of the Bluegrass Facilities, but they do object to building Cane Run 7 on claims that the Companies have not adequately analyzed DSM-EE, renewable alternatives, and possible CO₂ pricing. But as shown above and throughout the record of this proceeding, the SC-NRDC witnesses did no serious analysis of their own, and made no alternative proposals for how to meet the capacity-demand gap that nobody contests will soon impact the Companies and their customers. Indeed, Mr. Sinclair showed in his rebuttal testimony that even if the Companies accepted the SC-NRDC's unfounded claims about DSM-EE load reductions and accepted all the wind proposals actually offered to the Companies during their RFP, the Companies would still face a significant capacity shortfall, and that the most cost-effective way of closing that gap would be precisely what the Companies have proposed in this proceeding. Moreover, the EPA's recent actions concerning regulating CO₂ emissions from new generating units shows that building units like Cane Run 7 is precisely what the EPA intends utilities to do, and that existing units like the Bluegrass Facilities will not be affected by such regulations, nor does EPA intend to regulate CO₂ emissions from such units. The SC-NRDC's witnesses have therefore failed to present any plausible reason for the Commission to deny the Companies' application, and the Companies have presented ample reasons to grant it.


The Companies have established that purchasing the Bluegrass Facilities and building Cane Run 7 are required by the public convenience and necessity, as set forth in KRS 278.020(1) and case law, and the requested CPCN should be granted for that reason. In addition, for all of the reasons set forth above, the Companies' request for a Site Compatibility Certificate should also be granted.

Accordingly, the Companies respectfully request that the Commission enter an order providing the following relief:

1. Finding that a need exists to replace some 797 MW of retiring generating capacity and to meet additional projected demand of about 80 MW by 2016;
2. Finding that construction of a 640 MW net summer rating natural gas combined cycle generating unit utilizing F-class gas turbine technology at the Companies' Cane Rune Station and purchase of the Bluegrass Facilities in Oldham County consisting of three Siemens-Westinghouse 501 FD2 combustion simple cycle turbines represent the most reasonable, least-cost resource for meeting the Companies' needs as set forth in the Companies' Resource Assessment;
3. Finding that the construction of Cane Rune 7 and the purchase of the Bluegrass Facilities as proposed in this proceeding will serve the public convenience and necessity;
4. Granting KU and LG&E each a CPCN for their respective ownership interests in Cane Run 7 and the Bluegrass Facilities as proposed (KU will own 78% and LG&E 22% of Cane Run 7 and KU will own 31% and LG&E will own 69% of the Bluegrass Facilities); and
5. Granting KU and LG&E each a Site Compatibility Certificate for their respective ownership interests of Cane Run 7.

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Respectfully submitted,



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CERTIFICATE OF SERVICE

The undersigned hereby certifies that a true and correct copy of the foregoing Post-Hearing Brief was served on the following persons on the 3rd day of April, 2012, U.S. mail, postage prepaid:

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