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March 20, 2008

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HAND DELIVERED

Stephanie L. Stumbo
Executive Director
Public Service Commission of Kentucky
211 Sower Boulevard
P.O. Box 615
Frankfort, KY 40602-0615

RE: P.S.C. Administrative Case 2007-00477

Dear Ms. Stumbo:

Enclosed please find and accept for filing an original and ten copies of Kentucky Power Company's Response to the Data Requests propounded by the Commission's March 11, 2008 Order.

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

Very truly yours,

Mark R. Overstreet

cc: Attached Service List

KE057:00KE4.16706:2:FRANKFORT

CERTIFICATE OF SERVICE

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COMMONWEALTH OF KENTUCKY

BEFORE THE

PUBLIC SERVICE COMMISSION OF KENTUCKY

IN THE MATTER OF

AN INVESTIGATION OF THE ENERGY AND REGULATORY ISSUES IN SECTION 50 OF KENTUCKY'S 2007 ENERGY ACT	)))	**ADMINISTRATIVE CASE NO. 2007-00477**

KENTUCKY POWER COMPANY

RESPONSE TO COMMISSION STAFF'S FIRST SET OF DATA REQUESTS

March 20, 2008

Kentucky Power Company

REQUEST

Refer to the Joint Testimony of Lonnie E. Bellar ("Bellar Testimony"). page 5, which discusses the potential for renewable resource power purchases to result in a net reduction in the amount of new generation utilities proposed to build. There are a number of bills pending in the U.S. Congress that may impact the construction of new generation facilities in the future, primarily those bills that would result in federal regulation of the amount of Carbon Dioxide ("CO2") produced by utilities in the generation of electricity.

a. Explain whether each of the Generating Utilities anticipates some form of federal CO2 regulation to be enacted in the near future. Identify which of the pending bills each of the Generating Utilities favor and which of the pending bills, if any, each believes will become law.

b. Explain whether each of the Generating Utilities is currently incorporating the uncertainty an/or potential for CO2 regulation into its respective Integrated Resource Plan demand-side and supply-side planning processes and how this may be affecting the timeline for future construction of new generation.

c. Using the Generating Utilities' own estimates of the cost of CO2 removal, describe the potential changes in the type of new or expanded demand-side management ("DSM") programs that each believes may become cost effective in Kentucky and the Potential energy and demand savings each program is estimated to produce.

d. Using each of the Generating Utilities' own estimates of the cost of CO2 removal, identify the potential changes in the relative cost effectiveness of renewable generation, distributed generation and cogeneration in Kentucky.

e. Explain whether each of the Generating Utilities is aware of anything that presently would prevent each of them from developing additional generation capacity from renewable sources, distributed generation sources of cogeneration sources in Kentucky either as sole owner or with an equity stake in these types of projects.

RESPONSE

1.a Kentucky Power Company expects that legislation and/or regulations governing greenhouse gas emissions, including carbon dioxide (CO_2), will be established in the near future. Recent developments in the U.S. Congress, various state legislatures, and a key federal court decision regarding greenhouse gas emissions indicate that emission of CO_2 will be regulated soon.

Kentucky Power Company supports the Bingaman-Specter Low Carbon Economy Act of 2007 as it provides a balanced approach to meeting environmental, economical, and energy needs.

It is too early to predict which of the pending bills will ultimately become law and the current details of any proposal are likely to change through that process. To date, the Lieberman-Warner Climate Security Act has made the most progress of the pending bills when it was passed by the Senate's Environment and Public Works Committee on December 5, 2007 to the full Senate.

1.b. Yes, KPCo incorporates uncertainty regarding CO_2 regulation into its IRP via scenario analysis and risk analysis. This may affect the timeline for construction of new generation primarily through the impact of such regulations on capacity and energy costs, which in turn impact electricity prices and through prices may impact load forecasts. Secondarily, such additional costs on the supply side may make DSM relatively more cost effective.

1.c. AEP has developed some preliminary estimates for the cost of CO2 removal (capture and sequestration). Any incremental costs, to the extent they influence the marginal price of capacity and energy, could have the effect of making more DSM program options cost effective. However, the earliest time that AEP expects carbon capture technology to be mature enough to employ is late next decade. Thus, incremental costs associated with adopting, implementing and operating this technology would not factor significantly into cost benefit analyses for DSM programs that would be implemented near-term, as their effective lives would largely be exhausted prior to the realization of the increased costs associated with CO2 capture and sequestration. Additionally, it must be appreciated that this nascent and evolving technology is difficult to value with certainty. As knowledge is gained in the industry through trials, such as the ones announced by AEP at their Mountaineer and Northeastern plants, the timing and costs of these technologies can be incorporated into planning assumptions. Given the unknown timing and extent of the incremental costs, it is speculation about which programs might migrate from not-cost-effective to cost-effective, at this point. Further, determining the market potential and the subsequent impact of those programs would require additional study that is not available at this time.

1.d. It would be difficult to relate an estimated cost of carbon dioxide removal to the cost effectiveness of renewable generation, distributed generation, and cogeneration. The difficulty arises for two reasons.

First, both distributed generation and cogeneration could also have costs associated with CO_2, which would change their cost effectiveness.

Secondly, the avoided costs to which these three alternatives should be compared are not the costs of energy from baseload units, on which the removal of CO_2 probably would make the most economic sense. The avoided costs should be pure capacity, represented by either market price or a combustion turbine, and marginal energy, represented by either market price or utility marginal cost, whichever is lower on an hourly basis.

The requested analysis is not available at this time.

1.e. Development of generation resources is a complex process involving a host of challenging variables. Obtaining timely regulatory cost recovery for the required investment, including cash return on CWIP, is one of the major challenges that need to be addressed and resolved. With respect to renewable generation resources, there are additional challenges that apply to KPCo's consideration of renewable generation resources, including the following. There are physical limitations as to biomass use at pulverized coal-fired power plants; uncertainties around the biomass fuel supply; only a small amount of solar could be achieved (from photovoltaic, not large solar plants) in the Kentucky service territory; hydro (especially large hydro) is likely nonexistent and hard to permit; small kinetic/in-stream hydro is still under development; geothermal for electricity production is nonexistent in KPCo's service territory; small wind might be an option, but is relatively expensive.

WITNESS: Errol K Wagner

Kentucky Power Company

REQUEST

Refer to pages 5-6 of the Bellar Testimony. Expand on the scope of work the Generating Utilities anticipate that the proposed task force would consider. For example, explain whether metering and interconnection standards, standard offer contracts, avoided cost analysis, and cost recovery of new meters, renewables, and distributed generation would be considered as part of the scope of work for the task force. What groups do the Generating Utilities expect would be members of the task force?

RESPONSE

See Joint Response filed by Generating Utilities.

WITNESS: Errol K Wagner

Kentucky Power Company

REQUEST

Refer to the Bellar Testimony, page 2, lines 8-14.

a. Mr. Bellar states that, with the exception of Duke Energy Kentucky ("Duke"), the Generating Utilities do not believe that additional legislation is necessary or desirable to eliminate the impediments to cost-effective DSM strategies. Is it the position of the Generating Utilities, other than Duke, that additional incentives for DSM would not result in the adoption of additional DSM programs or the expansion of any current DSM programs?

b. The Generating Utilities also believe that the current planning and certificating processes are adequate to ensure the utilities consider such programs. The Integrated Resource Plan ("IRP") regulation 807 KAR 5:584, Section 8(4)(a)(6), requires each generating utility to provide the reductions or increases in peak demand from new conservation and load management or other demand-side management programs. Cite any requirement included in the certificate process that requires such documentation.

RESPONSE

See Joint Response filed by Generating Utilities.

WITNESS: Errol K. Wagner

Kentucky Power Company

REQUEST

Refer to the Bellar Testimony, page 2, line 17 to page 4, line 7.

a. Mr. Bellar states that the Generating Utilities have an impressive array of successful energy efficiency and DSM strategies. Are there any programs that have not been implemented by every Generating utility? If yes, describe each such program, identify the generating utility that has not adopted the program, and explain the reason why that utility has not adopted that program.

b. If not addressed in 4(a) above, identify the Generating Utilities with residential or commercial load control programs (for example, air-conditioners, water heaters, pool pumps). Explain why the Generating Utilities without such load control programs do not offer such direct load control.

c. Explain where consideration of renewables is specifically required in the IRP or certificate process.

d. Explain the relevance to this proceeding of the fact that the report "Kentucky's Energy Opportunities for Our Future: A Comprehensive Energy Strategy," a document released in February 2005, does not mention revision of any utility planning process.

RESPONSE

a. KPCo has not evaluated other Generating Utilities' energy efficiency and DSM strategies and can not state whether "there are any programs that have not been implemented by every Generating Utility." The following are the successful active DSM and energy efficiency programs currently employed by Kentucky Power:

1/ Targeted Energy Efficiency Program

This program will piggyback the resources of not-for-profit agencies that provide weatherization services to low-income households. Energy audits, consultation, and extensive weatherization and energy conservation measures will be provided to eligible low-income customers. Low-income customers who use on the average of 700 kWh per month are eligible for the program.

2/ High Efficiency Heat Pump – Mobile Home Program

Kentucky Power Company will provide a $400 incentive to mobile home customers who replace their resistant heat system with a high-efficiency heat pump. Eligible customers must live in a mobile home, have resistant heat, have service with KPCo for at least 12 months. For promoting the program, participating HVAC dealers will receive a $50 incentive for each high efficiency heat pump installed.

3/ Mobile Home New Construction Program

Kentucky Power Company will provide a $500 incentive to mobile home buyers who purchase a new home with zone 3 insulation levels and a high efficiency heat pump. Participating manufactured housing dealers will also receive a $50 incentive for promoting the program.

4/ Modified Energy Fitness Program

The intent of the Modified Energy Fitness Program is to induce Kentucky Power Company residential customers to have an energy audit and, where applicable, have installed a mixture of energy saving measures. The audit and consultation will pinpoint energy conservation measures that can be implemented by the customer and also educate the customer on the benefits of energy efficiency.

The primary target market will be site built and manufactured homes utilizing electric space heating and electric water heating and use a minimum average of 1,000 kWh of electricity per month. The extent of the services provided will be dependent upon the electrical products in the customer's home. Honeywell International is the implementation contractor for the program.

Additionally, KPCo did have DSM Programs available to all three sectors (residential, commercial and Industrial). The commercial programs were successful and were available for seven years before the database of potential customers was exhausted. The industrial programs were discontinued due to lack of participation.

Because of differences between utilities, their operations and customer mixes it seems likely there may be "energy efficiency and DSM strategies" that have proven successful for one or more utilities that have not been implemented by all Generating Utilities. The factors affecting the adoption by a second utility of a particular energy efficiency and DSM strategy successfully employed by another utility include:

(a) The cost profile of utility X may be different than utility Y and therefore a cost-effective DSM program for utility X may or may not be cost effective for utility Y.

(b) Whether the utility is a winter peaking utility or a summer peaking utility. A program directed at air conditioner use may be successfully implemented by a summer peaking utility but not as effective for a winter peaking utility.

(c) The utility's specific customer mix. For example utility X may have a substantial number customers living in manufactured housing and utility Y does not. Therefore, a manufactured housing DSM program may not be effective for utility Y to implement.

(d) The membership of the utility's collaborative. DSM programs are not adopted by a utility operating in a vacuum. Rather, programs are considered by and adopted by the utility's collaborative. Because the membership of each utility's collaborative is different the DSM programs and the DSM approaches adopted are likely to differ from utility to utility.

b. For the past six to nine months KPCo has been considering load control programs as part of a rollout of advanced metering infrastructure for its service territory. While direct load control could be implemented sooner without advanced metering, the Company believes that a roll out of direct load control in conjunction with advanced metering is a more comprehensive solution and will provide greater benefits to the Customer and Company over the long run.

c & d. See Joint Response filed by Generating Utilities.

WITNESS: Errol K. Wagner

Kentucky Power Company

REQUEST

Refer to the discussion of "full-cost accounting" included on pages 6 and 7 of the Bellar Testimony. Identify the specific externalities that the Generating Utilities incorporate in their planning processes.

RESPONSE

Only externalities that can be quantified and internalized are incorporated into the planning process. At present the only such externality is emission allowance values.

WITNESS: Errol K Wagner

Kentucky Power Company

REQUEST

Although the Generating Utilities see no need to modify rate structures for achieving energy efficiency, what is the Generating Utilities' position regarding "revenue decoupling?"

RESPONSE

Kentucky Power believes that Kentucky's existing mechanisms for DSM and energy efficiency which recognize lost revenues are effective and that revenue decoupling is not needed at this time. One definition of revenue decoupling is the disassociation of a utility's revenues from its sales of the energy commodity – breaking the link between utility revenues and actual sales.

There are innumerable advantages and disadvantages of revenue decoupling from the utility, customer and regulator perspectives. A significant challenge for revenue decoupling is that customers likely would be less willing to manage their usage and conserve energy if a significant portion of their bill is a fixed charge to cover utility fixed costs and did not decrease in the short term due to reduced consumption.

Many states that have considered revenue decoupling for electric service have later rejected or discontinued it. Examples include New York, Maine, Oregon, Florida and Montana.

WITNESS: Errol K Wagner

Kentucky Power Company

REQUEST

Refer to the Bellar Testimony at page 7, lines 15-17. Explain whether additional opportunities exist to encourage the further development of energy efficiency and DSM programs through rate structures and cost recovery. Include in the explanation a discussion of the position of the Generating Utilities on the use of inclining block rates as well as other rate design techniques to discourage usage.

RESPONSE

Fundamentally, regulated rates should be based upon cost-of-service. To the extent that current rate structures do not reflect the actual cost of service, the customers paying those rates may make inefficient decisions. For example, if the existing residential class rates include a subsidy (are lower than cost of service) then customers are given the price signal that electricity is cheaper than it actually is, and could make wasteful consumption decisions. Conversely, if industrial rates are higher than cost of service, customers may make investments in energy efficiency that are not cost-justified if the actual costs were considered.

Similarly, the use of inclining block rates that are not based upon cost of service as a method to incent energy efficient behavior can create unintended consequences. For example, assume that the cost of service is 6 cents per kWh, but an inclining block rate is implemented which prices additional usage at 8 cents per kWh. For every kWh reduced in response to that inclining block rate, utility costs are reduced by 6 cents and utility revenue is reduced by 8 cents. This lost revenue of 2 cents per kWh must then be collected in some manner. Because of the risks inherent in departing from cost-based rates in favor of tariffs designed to incent societally preferred behavior, KPCo recommends any rate changes be made cautiously, such as offering the tariff through a limited pilot program prior to broad deployment.

As advanced technology is implemented to allow two-way communication between the utility, its meters and its customers, there will be a number of different tariff designs, including various time-of-use option, that may be available for utilities to offer customers. It will become more cost-effective to modify rate structures in a manner that will provide better price signals to customers on a varying and more real-time basis. Multiple tariff offering could be provided to each customer class, enabling customers to choose the appropriate rate for their individual circumstances.

These advancements also depend on the evolution of in-home devices and other enabling technology that will make it easy for customers to respond to such price signals automatically. Without such enabling technology, Kentucky Power's experience has been that there is minimal customer interest in its existing time-based pricing offerings.

WITNESS: Errol K Wagner

Kentucky Power Company

REQUEST

Refer to the discussion on page 2 line 9, through page 3, line 16, of the Bellar Testimony filed on behalf of Kentucky Utilities Company ("KU") and Louisville Gas and Electric Company ("LG&E") Mr. Bellar essentially supports annual reviews of utilities financial results to ensure that utility revenues remain consistent. What is the position of the Generating Utilities regarding such reviews?

RESPONSE

KPCo supports appropriately designed formula rates that allow for changes in the revenue level commensurate with the Company's change in cost. Such a formula rate would include a reasonable bandwidth ROE component that when allowing for adjustments to rates, either up or down, would ensure that the Company's earnings fall within that specified bandwidth. We do not support a mechanism that would provide for a constant revenue level with no consideration being given to changes in the Company's cost levels. The Company is willing to work with the parties in an effort to come up with an approach it can support.

In response specifically to Mr. Bellar's testimony on page 2, lines 18-21, which asserts that "this approach would allow utilities to pursue energy efficiency programs more aggressively because they could be assured of adequate revenue even if energy sales decrease," KPCo believes the surcharge recovery of lost revenues authorized in existing law and regulation already adequately addresses the issue of making the utility whole for decreased sales due to implementation of energy efficiency programs.

WITNESS: Errol K Wagner

Kentucky Power Company

REQUEST

Refer to the incentives set forth for energy efficiency on page 4, lines 4-19, of the Bellar Testimony filed on behalf of KU and LG&E. What is the position of the Generating Utilities regarding these incentives?

RESPONSE

KPCo believes the best way to encourage utilities to embrace DSM/EE programs is by creating a level playing field with supply-side options. This includes recovery of program costs, lost revenues between rate cases, and an opportunity to earn a return on investment. Mr. Bellar's testimony proposes three different incentive mechanisms to encourage energy efficiency programs.

First, Mr. Bellar testifies that utilities should be allowed to capitalize non-expense related components of energy efficiency measures, such as smart meters. KPCo agrees that non-expense related expenditures should be capitalized, including smart meters, and believes that this recovery mechanism is already available to the PSC and is typically the treatment for non-expense related expenditures. Further, KPCo believes that the remaining non-depreciated value of replaced meters should be recoverable.

Second, Mr. Bellar proposes a "durable incentive rate of return on equity." This bonus ROE would add to the approved ROE for capital expenses. The incentive ROE would persist across rate cases and not be factored into setting future approved ROE. KPCo supports this bonus ROE concept as one of several DSM/EE incentive mechanisms that encourage utility investment in energy efficiency.

The third incentive proposed in Mr. Bellar's testimony is a shared savings incentive similar to what it currently allowed under Kentucky's DSM rules.

An alternative approach is to allow the utility the flexibility to propose an appropriate recovery mechanism for the programs they file with the Commission. We see this in Indiana's DSM regulations, where the utility may request that the Commission approve recovery, including some form of return on investment, best suited to their individual program offerings.

WITNESS: Errol K Wagner

Kentucky Power Company

REQUEST

Refer to the discussion of the proposed treatment of purchased power on page 5, lines 1-10, of the Bellar Testimony filed on behalf of KU and LG&E. What is the position of each of the Generating utilities regarding the treatment proposed by Mr. Bellar?

RESPONSE

Mr. Bellar's testimony identifies a practical issue that from a utility perspective, under current regulatory treatment, the best possible outcome of a long-term purchased power arrangement is to break even. In other words to recover the actual purchase cost through customer rates. There is no benefit to the utility from entering into a long-term purchased power agreement, and potentially a downside if all of the costs are not allowed to be recovered. In contrast, for utility-constructed generation, the regulatory compact offers the opportunity for the utility to earn a just and reasonable rate of return on investments in new generation. This could be viewed as creating a predisposition for utilities to favor self-build of generation over long-term purchased power arrangements. Mr. Bellar's proposal would address this assumed predisposition by providing utilities with the opportunity to earn a just and reasonable return on the purchase cost of demand/capacity. However, Mr. Bellar's testimony does not address how and when the utility will recover the demand portion of such purchased power contract. The Company recommends such a proposal be premised on being permitted to earn a return on and of any such capitalized costs as soon as they are placed into service. The Company is willing to work with the parties in an effort to come up with approaches with respect to each of the incentives it can support.

WITNESS: Errol K Wagner

Kentucky Power Company

REQUEST

Refer to the Bellar Testimony on behalf of KU and LG&E. Mr. Bellar discusses the demand-side management statute, KRS 278.285 and notes the "plethora of cost-effective" programs; however, the majority of these programs have been developed for residential and small commercial customers. KRS 278.285(3) states, "The commission shall allow individual industrial customers with energy intensive processes to implement cost-effective energy efficiency y measures in lieu of measures approved as part of the utility's demand-side management programs if the alternative measures are not subsidized by other customer classes."

a. Describe in detail the actions taken by each of the Generating Utilities to ensure that its industrial customers are in compliance with this condition.

b. Have the Generating Utilities utilized any benchmark in terms of dollars spent or in terms of savings, dollars saved or energy saved, in order for industrial customers to qualify for the "opt-out" provision? Explain your response.

RESPONSE

a. Please see the Company's response to Commission Staff's 2nd Set of Data Requests issued January 3, 2008 to Kentucky Power and filed January 14, 2008, Item No. 37, pages 2 and 3 which discuss the filing procedure and approval process used by KPCo to comply with KRS 278.285 (3).

b. KRS 278.285(3) does not direct the utility to employ benchmarks. In addition, Kentucky Power believes its process is at least the equivalent of one employing benchmarks.

WITNESS: Errol K. Wagner

Certification

I, Errol K. Wagner, Director of Regulatory Services, hereby certify that I supervised the preparation of the Responses filed herewith and that the responses are true and accurate to the best of my knowledge, information and belief formed after a reasonable inquiry.

This 20th day of March, 2008.

Errol K. Wagner