

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

CONSIDERATION OF THE NEW	)	
FEDERAL STANDARDS OF THE	)	CASE NO.
ENERGY INDEPENDENCE AND	)	2008-00408
SECURITY ACT OF 2007	)	

INITIAL DATA REQUEST OF COMMISSION STAFF

The jurisdictional electric utilities<sup>1</sup> and the jurisdictional gas utilities<sup>2</sup> (collectively the “jurisdictional utilities”) which have been made parties to this case, pursuant to 807 KAR 5:001, are to file with the Commission the original and ten copies of the following information, with a copy to all parties of record. The information requested herein is due on or before March 30, 2009. Responses to requests for information shall be appropriately bound, tabbed and indexed. Each response shall include the name of the witness responsible for responding to the questions related to the information provided.

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<sup>1</sup> The jurisdictional electric utilities which have been made parties to this case are: Big Rivers Electric Corporation; Big Sandy Rural Electric Cooperative Corporation; Bluegrass Energy Cooperative Corporation; Clark Energy Cooperative Inc.; Cumberland Valley Electric; Duke Energy Kentucky, Inc.; East Kentucky Power Cooperative; Farmers Rural Electric Cooperative Corporation; Fleming-Mason Energy Cooperative; Grayson Rural Electric Cooperative Corporation; Inter-County Energy Cooperative Corporation; Jackson Energy Cooperative; Jackson Purchase Energy Corporation; Kenegy Corporation; Kentucky Power Company; Kentucky Utilities Company; Licking Valley Rural Electric Cooperative Corporation, Louisville Gas and Electric Company, Meade County Rural electric Cooperative; Nolin Rural Electric Cooperative Corporation; Owen Electric Cooperative; Salt River Electric Cooperative Corporation; Shelby Energy Cooperative Inc.; South Kentucky Rural Electric Cooperative Corporation; and Taylor County Rural Electric Cooperative Corporation.

<sup>2</sup> The jurisdictional gas utilities which have been made parties to this case are: Atmos Energy Corporation; Columbia Gas of Kentucky, Inc.; Delta Natural Gas Company, Inc.; Duke Energy Kentucky, Inc.; and Louisville Gas and Electric Company.

Each response shall be answered under oath or, for representatives of a public or private corporation or a partnership or association or a governmental agency, be accompanied by a signed certification of the preparer or person supervising the preparation of the response on behalf of the entity that the response is true and accurate to the best of that person's knowledge, information, and belief formed after a reasonable inquiry.

The jurisdictional utilities that have been made parties to this case shall make timely amendment to any prior response if they obtain information which indicates that the response was incorrect when made or, though correct when made, is now incorrect in any material respect. For any request to which the jurisdictional utilities fail or refuse to furnish all or part of the requested information, the jurisdictional utilities shall provide a written explanation of the specific grounds for its failure to completely and precisely respond.

Careful attention should be given to copied material to ensure that it is legible. When the requested information has been previously provided in this proceeding in the requested format, reference may be made to the specific location of that information in responding to this request. When applicable, the requested information shall be separately provided for total company operations and jurisdictional operations.

Questions 1 through 95 refer only to the electric standards of the Energy Independence and Security Act of 2007 ("EISA 2007").

Big Rivers Electric Corp. ("Big Rivers"), Jackson Purchase Energy Corp. ("Jackson Purchase"), Kenergy Corp. ("Kenergy") and Meade Co. Rural Electric Cooperative Corp.

("Meade Co. RECC"), (collectively referred to as "Big Rivers and each member") are to respond to the following questions:

1. State whether Big Rivers and each member believe that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky's IRP regulation, 807 KAR 5:058. Explain why or why not.

2. Explain in detail how Big Rivers and each member treat energy efficiency as a priority resource. Identify and describe any goals Big Rivers and each member have developed in terms of kWh (or KW or MW if more appropriate) displaced or saved.

3. State whether Big Rivers and each member believe that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky's certificate statute, KRS 278.020. Explain why or why not.

4. With reference to the discussion of the 15 energy efficiency programs listed on pages 6 through 9 of the Joint Direct Testimony of David A. Spainhoward, G. Kelly Nuckols, Sanford Novick, and Burns E. Mercer ("Big Rivers Joint Direct"), address the following:

a. Identify the programs offered by Jackson Purchase; those offered by Kenergy; and those offered by Meade Co. RECC.

b. Identify the amount of kWh (or KW or MW if more appropriate) that Big Rivers estimates is displaced or saved by each program offered by Jackson Purchase; each program offered by Kenergy; and each program offered by Meade Co. RECC.

5. Explain why Big Rivers and each member have not sought approval to implement a demand-side management ("DSM") surcharge per KRS 278.285 for any DSM offering.

6. Identify and describe each of Big Rivers' and each member's current rate designs that promote energy efficiency. Identify the annual amount of kWh (or KW or MW if more appropriate) that Big Rivers estimates is displaced or saved by each rate design for Jackson Purchase, for Kenergy, and for Meade Co. RECC.

7. With reference to Jackson Purchase's tariffs, state whether Big Rivers and Jackson Purchase believe that Jackson Purchase's rate Schedule R for residential service, rate Schedule C-1 and rate Schedule C-3, both for small commercial service, each with a customer charge and flat energy charge, support energy efficiency. Explain why or why not.

8. The following questions refer to Kenergy's tariffs:

a. State whether Big Rivers and Kenergy believe that Kenergy's rate Schedule 1 for residential service with a customer charge and flat energy charge supports energy efficiency. Explain why or why not.

b. State whether Big Rivers and Kenergy believe that Kenergy's rate Schedule 2 for commercial, large power and public buildings and rate Schedule 3 with a customer charge and declining block flat energy charge, support energy efficiency. Explain why or why not.

9. The following questions refer to Meade Co. RECC's tariffs:

a. State whether Big Rivers and Meade Co. RECC believe that Meade Co. RECC's Schedule 1 rate for residential service and rate Schedule 2 for commercial

service, each with a customer charge and flat energy charge, supports energy efficiency. Explain why or why not.

b. State whether Big Rivers and Meade Co. RECC believe that Meade Co. RECC's rate Schedule 3 for three-phase power service and Schedule 4 for large power service support energy efficiency.

10. State whether Big Rivers and each member support inclining block rates. Explain your answer in detail.

11. With reference to the discussion about the recovery of only a portion of fixed costs through the customer charge, at Big Rivers Joint Direct, page 11, lines 10 through 17, address the following:

a. When did Big Rivers and each member perform their most recent cost of service study?

b. Describe the relationship of Big Rivers and each member's current rates and charges to the level of rates and charges indicated by the results of their most recent cost of service study.

c. Identify each specific case filed by each of Big Rivers' member cooperatives that were not settled in which the Commission did not grant the residential customer charge increase requested by the member cooperative. In terms of the increase in the residential customer charge, describe the result (in terms of amount and percent increase granted) of each case so identified.

12. With reference to EISA 2007, Section 532(a)(17)(B)(i), under which the Commission shall consider removing the throughput incentive, address the following:

a. State whether or not Big Rivers and each member support decoupling. Explain your answer in detail.

b. Current literature describes a myriad of decoupling mechanisms. If applicable, describe specifically the form of decoupling that Big Rivers and each member support.

13. Explain whether or not Big Rivers and each member believe the Commission should implement decoupling to support energy efficiency.

14. Refer to page 11 of Big Rivers Joint Direct, where reference is made to a number of rate design options that can eliminate throughput incentive.

a. Provide a list of the options and the reasons for and against implementation of each option.

b. Explain whether Big Rivers or each member plan to implement any of the options identified.

15. Refer to pages 14 and 15 of Big Rivers Joint Direct. Using its experience in its advanced meter infrastructure (“AMI”) pilot program, explain whether Kenergy believes AMI systems can be cost-effective using current day technology.

16. Refer to page 17 of Big Rivers Joint Direct. There are no customers participating in Kenergy’s real-time pricing pilot program. Explain whether potential participants have been identified and if the program has been explained to them.

17. Describe any AMI deployed by Big Rivers and each member.

18. Describe any transmission and distribution automation equipment deployed by Big Rivers and each member.

19. Describe any digital communications or any other smart grid technology deployed by Big Rivers and each member.

20. Describe Big Rivers' and each member's plans with regard to the installation of additional smart grid technology and components. Include budgets and timelines if appropriate. If Big Rivers and each member have no specific plans for the installation of additional smart grid technology and components, explain why not.

Duke Kentucky is to respond to the following questions:

21. State whether Duke Kentucky believes that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky's integrated resource plan ("IRP") regulation, 807 KAR 5:058. Explain why or why not.

22. Notwithstanding the Direct Testimony of David E. Freeman ("Freeman Direct") and Duke Kentucky's consideration of energy efficiency as a "fifth" fuel, explain in detail how Duke Kentucky treats energy efficiency as a priority resource. Identify and describe any goals Duke Kentucky has developed in terms of kWh (or KW or MW if more appropriate) that are displaced or saved.

23. State whether Duke Kentucky believes that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky's certificate statute, KRS 278.020. Explain why or why not.

24. Identify all electric DSM programs offered by Duke Kentucky. If appropriate, identify any programs offered that have not been specifically authorized by

the Commission per KRS 278.285. Identify the annual kWh (or KW or MW if more appropriate) that are displaced or saved by each program.

25. State whether Duke Kentucky believes that its rate RS for residential service, which includes a customer charge and flat energy charge, supports energy efficiency. Explain why or why not.

26. State whether Duke Kentucky believes that its rate DS and rate DP, each with a declining block energy charge, support energy efficiency. Explain why or why not.

27. State whether Duke Kentucky supports inclining block rates. Explain your answer in detail.

28. With reference to EISA 2007, Section 532(a)(17)(B)(i), under which the Commission shall consider removing the throughput incentive, address the following:

a. State whether or not Duke Kentucky supports decoupling. Explain your answer in detail.

b. Current literature describes a myriad of decoupling mechanisms. If applicable, describe specifically the form of decoupling that Duke Kentucky supports.

29. Explain whether or not Duke Kentucky believes the Commission should implement decoupling to support energy efficiency.

30. Explain whether any components of automated meter reading ("AMR") hardware can be utilized when a utility implements AMI.

31. Refer to page 15 of the Bailey Direct Testimony.

a. Provide the number of customers served under each of the following tariffs: DS, DP, DT and TT.

b. Explain whether Duke Kentucky believes there is any potential to increase participation in Rates DS, DP, DT or TT.

c. Provide the number of customers served under each of the following load management tariffs: Rider PLM and Rider LM.

d. Explain whether Duke Kentucky believes there is any potential to increase participation in Rider PLM or Rider LM.

32. Refer to page 1 of the Direct Testimony of Richard G. Stevie ("Stevie Direct"). Under its save-a-watt program, Duke Kentucky seeks to recover 50 percent of the net present value of avoided energy and capacity costs achieved for energy conservation programs and 75 percent of the avoided capacity costs achieved for demand response programs. From those revenues, Duke Kentucky must cover energy efficiency program costs. What margin, after program costs, does Duke Kentucky believe is necessary to encourage significant utility investments in energy efficiency technology, products and services? Explain the response.

33. Provide a summary of Duke Kentucky's AMI program as discussed in the testimony of Mr. Jim L. Stanley in Duke Kentucky's last general rate case, Case No. 2006-00172,<sup>3</sup> in which the revenue increase under the settlement agreement included the costs and reflected the savings of the proposed AMI program. Describe any changes to the plan as outlined in Mr. Stanley's testimony. Include any updated information regarding the costs and savings achieved to date and an estimate of total costs and savings.

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<sup>3</sup> Case No. 2006-00172, Application of the Union Light, Heat and Power Company DBA Duke Energy Kentucky for an Adjustment Electric Rates, (Ky. PSC, Dec. 21, 2006).

34. If not included in the discussion of the previous question, describe any transmission and distribution automation equipment deployed by Duke Kentucky.

35. If not included in the discussion in the responses to questions No. 33 and No. 34 above, describe any digital communications or any other smart grid technology deployed by Duke Kentucky.

36. Refer to the Amended Direct Testimony of Todd W. Arnold (“Arnold Direct”), at page 7, lines 3 through 4. Identify and describe the 12 projects Duke Energy is working on under EPRI’s “Intelligrid” umbrella. Identify any of the 12 that directly involve Duke Kentucky.

37. With reference to Arnold Direct, page 17, lines 18 through 23, and page 18, lines, 1 through 5, address the following:

a. Identify specifically the types of smart grid investments Duke Kentucky believes the Commission can approve pursuant to the DSM Statute, KRS 278.285.

b. Identify specifically the types of smart grid investments which Duke Kentucky believes cannot be approved pursuant to the DSM Statute, KRS 278.285.

38. With reference to the discussion of Duke Kentucky’s proposed save-a-watt initiative in Case No. 2008-00495<sup>4</sup> in Stevie Direct, address the following:

a. Describe any smart grid investments included in the specific programs proposed by Duke Kentucky.

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<sup>4</sup> Case No. 2008-00495, Application of Duke Energy Kentucky, Inc. for Approval of Energy Efficiency Plan, Including an Energy Efficiency Rider and Portfolio of Energy Efficiency Programs, (Ky. PSC, Dec. 1, 2008).

b. If not specifically discussed in part a. above, describe the impact of any smart grid investment in the specific programs proposed by Duke Kentucky.

East Kentucky Power Cooperative (“EKPC”) and its member distribution cooperatives (collectively referred to as “EKPC and each member”) are to respond to the following questions:

39. State whether EKPC and each member believe that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky’s IRP regulation, 807 KAR 5:058. Explain why or why not.

40. Explain in detail how EKPC and each member treat energy efficiency as a priority resource. Identify and describe any goals EKPC and each member has developed in terms of kWh (or KW or MW if more appropriate) displaced or saved.

41. State whether EKPC and each member believe that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky’s certificate statute, KRS 278.020. Explain why or why not.

42. Explain why EKPC and each member have not sought approval to implement a DSM surcharge per KRS 278.285 for any DSM offering.

43. With reference to the discussion of energy efficiency programs on pages 3 and 4 of the Direct Testimony of Isaac S. Scott (“Scott Direct”) and Exhibit ISS-1, address the following:

a. For each member cooperative separately, identify the annual kWh (or KW or MW if more appropriate) EKPC estimates is displaced or saved by each program.

b. For each member cooperative separately, identify the number of participants in each program as of December 31, 2008.

44. The following questions refer to the tariffs of EKPC and its member cooperatives:

a. Identify each member with a rate for residential service which contains a customer charge and flat energy charge.

b. Identify each member with a rate for residential service different from that identified in part a. above. Describe each such rate.

c. Identify each member with a rate for commercial or small power service with a flat energy charge.

d. Identify each member with a rate for commercial or small power service different from that identified in part c. above. Describe each such rate.

f. Identify each member with a rate for large power service with a flat energy charge.

g. Identify each member with a rate for large power service different from that identified in part f. above. Describe each such rate.

h. Explain how each rate design identified above supports energy efficiency.

45. State whether EKPC and each member support inclining block rates. Explain your answer in detail.

46. With reference to the discussion about the recovery of more fixed costs through the demand charge component rather than the energy charges in Scott Direct, pages 4 and 5, address the following:

a. When did EKPC and each member perform their most recent cost of service study?

b. For EKPC and each member individually, describe the relationship of the current rates and charges to the level of rates and charges indicated by the results of their most recent cost of service study.

c. For the most recent general rate case filed by each of EKPC's member individually, identify the amount and percent of increase requested in the residential customer charge.

d. For each case identified in part c. above which was not settled, provide the amount and percent of increase in the residential customer charge that was granted.

47. With reference to EISA 2007, Section 532(a)(17)(B)(i), under which the Commission shall consider removing the throughput incentive, address the following:

a. State whether or not EKPC and each member support decoupling. Explain your answer in detail.

b. Current literature describes a myriad of decoupling mechanisms. If applicable, describe specifically the form of decoupling that EKPC and each member support.

48. Explain whether or not EKPC and each member believe the Commission should implement decoupling to support energy efficiency.

49. Refer to page 4 of Scott Direct. Explain whether the proposed settlement in Case No. 2008-00409<sup>5</sup> changes EKPC's and each member's plans to make significant rate design changes in its Phase II rate proposal.

50. Refer to page 13 of the Direct Testimony of Robert J. Camfield ("Camfield Direct").

a. Provide the number of customers served under EKPC's and each member's cogeneration tariffs.

b. Do EKPC and each member believe the potential exists within its service territory for additional waste energy projects? If so, describe the potential energy available through, and the economic feasibility of, those projects.

51. Describe any AMI deployed by EKPC or any of its members.

52. Describe any transmission and distribution automation equipment deployed by EKPC or any of its members.

53. Describe any digital communications or any other smart grid technology deployed by EKPC or any of its members.

54. Describe EKPC's and each member's plans with regard to the installation of additional smart grid technology and components. Include budgets and timelines if appropriate. If EKPC or its members have no such plans, explain why.

55. Refer to pages 4 through 6 of the Camfield Direct, regarding his recommendation that the Commission consider establishing a collaborative process with utilities and other stakeholders to monitor smart grid developments, etc. One of the reasons Mr. Camfield cites to support this recommendation is that "[e]vidence suggests

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<sup>5</sup> Case No. 2008-00409, General Adjustment of Rates of East Kentucky Power Cooperative, Inc. (Ky. PSC, Oct. 31, 2008)

that the Commission's current policy of monitoring industry developments and voluntary adoption is working satisfactorily." Explain how the current practice, which does not involve a collaborative process, can be considered as support for establishing such a process.

Fleming-Mason Energy ("Fleming-Mason") is to respond to the following questions:

56. State whether Fleming-Mason believes that its rate Schedule RSP for residential service with a customer charge and flat energy charge, rate Schedule SGS for small general service and rate Schedule LGS for small commercial service, with a customer charge, demand charge and flat energy charge support energy efficiency. Explain why or why not.

57. State whether Fleming-Mason supports inclining block rates. Explain your answer in detail.

58. With reference to the discussion about the recovery of fixed costs through fixed charges and that variable costs should be recovered through variable charges and the statement that Fleming-Mason's current retail rate design does not align the interests of the cooperative with respect to energy efficiency in the Testimony of Christopher S. Perry ("Perry Direct"), pages 2 and 3, address the following:

a. When did Fleming-Mason perform its most recent cost of service study?

b. Describe the relationship of Fleming-Mason's current rates and charges to the level of rates and charges indicated from the results of its most recent cost of service study.

c. When was Fleming-Mason's last general rate case filed?

d. What amount and percent increase did Fleming-Mason request in its residential customer charge?

e. What amount and percent increase in Fleming-Mason's customer charge was granted?

59. Explain why Fleming-Mason has not sought approval to implement a DSM surcharge per KRS 278.285 for any DSM offering.

60. With reference to EISA 2007, Section 532(a)(17)(B)(i), under which the Commission shall consider removing the throughput incentive, address the following:

a. State whether or not Fleming-Mason supports decoupling. Explain your answer in detail.

b. Current literature describes a myriad of decoupling mechanisms. If applicable, describe specifically the form of decoupling that Fleming-Mason supports.

61. Explain whether or not Fleming-Mason believes the Commission should implement decoupling to support energy efficiency.

62. With reference to Perry Direct, page 4, lines 5 and 6, explain why the revenue impact of electricity sales reduction is larger for utilities without generation resources.

63. With reference to the discussion about a \$2.00 per meter charge and a higher TIER in Perry Direct, page 12, lines 4 through 20, address the following:

a. Does Fleming-Mason prefer a \$2.00 per meter charge rather than a DSM Surcharge to support investments in energy efficiency? Explain your answer in detail.

b. Does Fleming-Mason prefer a higher authorized TIER rather than a DSM Surcharge to support investments in energy efficiency? Explain your answer in detail.

c. What TIER did Fleming-Mason request in its last rate case?

d. What TIER was granted?

Kentucky Power Co. ("Kentucky Power") is to respond to the following questions:

64. State whether Kentucky Power believes that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky's IRP regulation, 807 KAR 5:058. Explain why or why not.

65. With reference to the discussion in the Direct Testimony of Errol K. Wagner ("Wagner Direct"), pages 6 through 10, of the manner in which energy efficiency is incorporated into Kentucky Power's planning, address the following:

a. Absent the programs described on pages 9 and 10, explain in detail how Kentucky Power treats energy efficiency as a priority resource.

b. Identify and describe any goals Kentucky Power has developed for energy efficiency programs in terms of kWh (or KW or MW if more appropriate) displaced or saved.

66. Provide an estimate of the annual kWh (or KW or MW if more appropriate) displaced or saved by each DSM program listed on Exhibit EKW-2.

67. State whether Kentucky Power believes that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective

energy efficiency as a priority resource, is consistent with Kentucky's certificate statute, KRS 278.020. Explain why or why not.

68. State whether Kentucky Power believes that its rate RS for residential service, which contains a customer charge and flat energy charge, supports energy efficiency. Explain why or why not.

69. State whether Kentucky Power believes that its rate SGS for small general service with a service charge and a declining block energy charge supports energy efficiency. Explain why or why not.

70. State whether Kentucky Power supports inclining block rates for either residential service or small general service. Explain your answer in detail.

71. With reference to the discussion in Wagner Direct, page 17, lines 5 through 12, about the movement toward full-cost-based rates, address the following:

a. When did Kentucky Power perform its most recent cost of service study?

b. Describe the relationship of Kentucky Power's current rates charges to the level of rates and charges indicated by the results of Kentucky Power's most recent cost of service study.

72. With reference to EISA 2007, Section 532(a)(17)(B)(i), under which the Commission shall consider removing the throughput incentive, address the following:

a. State whether or not Kentucky Power supports decoupling. Explain your answer in detail.

b. Current literature describes a myriad of decoupling mechanisms. If applicable, describe specifically the form of decoupling that Kentucky Power supports.

73. Explain whether or not Kentucky Power believes the Commission should implement decoupling to support energy efficiency.

74. Refer to pages 18 and 19 of Wagner Direct.

a. Why does Kentucky Power believe so few customers are participating in its energy efficiency and load management programs?

b. Identify what steps Kentucky Power believes it could take to increase participation in its energy efficiency and load management programs.

c. What steps does Kentucky Power believe the Commission could take to encourage participation in these types of programs?

75. Refer to page 29 of Wagner Direct.

a. Explain whether any components of the AMR hardware installed in 2006 can be utilized when Kentucky Power deploys AMI.

b. Compare the estimated cost of current technology AMR and AMI metering equipment.

76. Refer to page 36 of Wagner Direct. No customers currently take service under the new RTP tariff.

a. Describe the new tariff and provide Kentucky Power's expectations for customer participation in the tariff.

b. Describe the marketing effort undertaken or planned for the RTP tariff. Provide any marketing or customer-information material that has been developed to inform customers of the new tariff.

77. Refer to page 39 of Wagner Direct.

a. Does Kentucky Power have customers that are participating in its COGEN/SPP I and COGEN/SPP II tariffs? If yes, provide the number of customers served under each tariff.

b. Does Kentucky Power believe the potential exists within its service territory for additional waste energy projects? If so, describe the potential energy available through and economic feasibility of those projects.

78. With reference to the discussion of the Smart Grid standard of EISA 2007 and American Electric Kentucky Power's ("AEP's") *gridSMART* in Wagner Direct, address the following:

a. Describe any transmission and distribution automation equipment being considered for deployment in Kentucky Power's service area.

b. Describe any digital communications or any other smart grid technology being considered for deployment in Kentucky Power's service area.

c. If not specifically discussed in parts a. and b. above, describe the current plans for implementation of *gridSMART* in Kentucky Power's service area. Include budgets and timelines if appropriate.

79. Identify any of the DSM programs approved for Kentucky Power that incorporate smart grid technology or *gridSMART*. Describe how such technology is included in each such program.

80. With reference to the discussion of the conversion of Kentucky Power's residential meters to AMR technology in 2006 on page 29 of Wagner Direct, address the following:

- a. Describe the type of meters and other technology adopted for this conversion.
- b. Provide the number of meters converted.
- c. Describe the costs and benefits of the conversion.

81. With reference to the discussion on pages 30 through 32 of Wagner Direct, of the three distribution automation demonstration projects in the Cannonsburg, Buckhorn and Inez areas, address the following:

- a. Describe the equipment and technology adopted for each project.
- b. Describe the costs and benefits of each project.

82. Page 33 of Wagner Direct refers to the financial components of the EISA 2007 smart grid standard. Explain whether Mr. Wagner believes that the Commission should adopt a "carte blanche" approach regarding recovery of the costs of investments in smart grid projects as opposed to an approach in which a showing of the benefits of the investments will be required prior to authorization of rate recovery.

Kentucky Utilities Co. ("KU") and Louisville Gas and Electric Co. ("LG&E") are to respond to the following questions:

83. State whether KU and LG&E believe that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky's IRP regulation, 807 KAR 5:058. Explain why or why not.

84. Explain in detail how KU and LG&E treat energy efficiency as a priority resource. Include a description of any goals KU and LG&E have developed in terms of kWh (or KW or MW if more appropriate) that are displaced or saved.

85. State whether KU and LG&E believe that EISA 2007, Section 532(a)(16)(B), under which electric utilities shall adopt policies establishing cost-effective energy efficiency as a priority resource, is consistent with Kentucky's certificate statute, KRS 278.020. Explain why or why not.

86. Identify all electric DSM programs offered by LG&E and KU. If appropriate, identify any programs offered that have not been specifically authorized by the Commission per KRS 278.285. Identify the amount of kWh (or KW or MW if more appropriate) that KU and LG&E estimate are displaced or saved by each program.

87. State whether KU and LG&E believe that their rate RS for residential service and rate GS for general service, each with a customer charge and flat energy charge, support energy efficiency. Explain why or why not.

88. State whether KU and LG&E support inclining block rates for either residential service or general service. Explain your answer in detail.

89. With reference to EISA 2007, Section 532(a)(17)(B)(i), under which the Commission shall consider removing the throughput incentive, address the following:

a. State whether or not KU and LG&E support decoupling. Explain your answer in detail.

b. Current literature describes a myriad of decoupling mechanisms. If applicable, describe specifically the form of decoupling that KU and LG&E support.

90. Explain whether or KU and LG&E believe the Commission should implement decoupling to support energy efficiency.

91. Page 5 of the Testimony of Lonnie E. Bellar ("Bellar Direct") includes a list of rate designs that KU and LG&E believe promote energy efficiency investments.

Explain whether KU and LG&E are aware of additional rate designs that would further promote energy efficiency and discuss whether KU and LG&E believe such rate designs would be appropriate in Kentucky.

92. Describe any AMI deployed by KU and LG&E.

93. Describe any transmission and distribution automation equipment deployed by KU and LG&E.

94. Describe any digital communications or any other smart grid technology deployed by KU and LG&E.

95. Describe KU's and LG&E's plans with regard to the installation of additional smart grid technology and components. Include budgets and timelines if appropriate. If KU and LG&E have no such plans, explain why.

Questions 96 through 119 refer only to the gas standards of EISA 2007.

Atmos Energy Corporation ("Atmos"); Columbia Gas of Kentucky, Inc.; ("Columbia"); and Delta Natural Gas Company Inc. ("Delta") collective referred to as ("Joint LDCs") are to respond to the following questions:

96. With reference to page 2, lines 14 through 23, and page 3, lines 1 through 6, of the Joint Direct Testimony of Glenn R. Jennings ("Joint Testimony"), address the following:

a. Explain how separating fixed-cost recovery of base or delivery charges from the volume of sales is a move toward decoupling.

b. Identify the amount and percentage increase in the residential customer charge requested in the last rate case.

c. Identify the amount and percent increase in the residential customer charge granted in the last rate case.

d. Identify the amount and percent increase in the residential customer charge identified in the utility's most recent cost of service study.

e. Describe how the current rate designs promote energy efficiency. Identify each such rate design. Identify the annual Mcfs or Btus that the utility estimates are displaced by each rate design.

97. With reference to page 3, lines 7 through 23, and page 4, lines 1 through 12, of the Joint Testimony, address the following:

a. Explain in detail how "Rate Stabilization" or an "Annual Rate Review mechanism" will promote energy efficiency.

b. If the utility believes that "Rate Stabilization" or an "Annual Rate Review mechanism" will promote energy efficiency, identify the annual amount and percent of Mcfs or Btus the utility estimates such mechanisms will displace.

c. Describe in detail what would be required to decouple base rate revenues from sales volumes by placing recovery of fixed costs entirely in the monthly customer charge.

d. Describe how weather normalization encourages the Joint LDCs to promote energy efficiency.

98. With reference to the Joint LDCs discussion of decoupling, address the following:

a. Current literature describes a myriad of decoupling mechanisms. If applicable, describe specifically the form of decoupling the Joint LDCs support.

b. Explain how the decoupling form supported by the Joint LDCs differs from the recovery of fixed costs entirely from per-unit fixed rates.

99. Explain whether or not the Joint LDCs believe the DSM Surcharge authorized by KRS 278.285 needs to be supplemented by a decoupling provision.

100. With reference to the new PURPA Standards of EISA 2007, Section 532(b)(6)(B)(ii), referring to the provision of incentives for the successful management of energy efficiency programs, identify and describe any incentive the Joint LDCs believe is needed in addition to those authorized by the DSM statute, KRS 278.285.

Atmos and Delta are to respond to the following questions:

101. Explain in detail how the utility treats energy efficiency as a priority resource. Identify and describe any goals the utility has developed in terms of Mcf or Btus displaced.

102. Identify all DSM programs offered by the utility. If appropriate, identify any programs offered that have not been specifically authorized by the Commission per KRS 278.285. Identify the annual Mcfs or Btus that the utility estimates are displaced by each program.

Columbia is to respond to the following questions:

103. Identify all DSM programs offered by Columbia. Identify the amount of Mcfs or Btus that the utility estimates are displaced by each program.

104. Explain why Columbia has not sought approval to implement a DSM surcharge per KRS 278.285 for any DSM offering.

Duke Kentucky is to respond to the following questions:

105. Explain in detail how the utility treats energy efficiency as a priority resource. Identify and describe any goals the utility has developed in terms of Mcf or Btus displaced.

106. Identify all DSM programs offered by Duke Kentucky. If appropriate, identify any programs offered that have not been specifically authorized by the Commission per KRS 278.285. Identify the annual Mcfs or Btus that the utility estimates are displaced by each program.

107. Identify and describe Duke Kentucky's current rate designs that promote energy efficiency. Identify the annual Mcfs or Btus that the utility estimates are displaced by each rate design.

108. With reference to the Direct Testimony of Jeffrey R. Bailey ("Bailey Direct"), page 9, lines 7 through 10, address the following:

a. Describe any "appropriate incentive" needed if Duke Kentucky's rates are further designed (beyond that described in Question 107 above) to encourage energy efficiency.

b. Explain why the "appropriate incentive" identified in 108. a. above cannot be implemented under the authorization of the current DSM Statute, KRS 278.285.

109. With reference to the discussion of decoupling on page 10 of Bailey Direct, address the following:

a. If applicable, describe the specific the form of decoupling Duke Kentucky supports.

b. Explain how the form of decoupling supported by Duke Kentucky differs from the recovery of fixed costs entirely from per-unit fixed rates.

110. Explain whether or not the DSM Surcharge authorized by KRS 278.285 needs to be supplemented by a decoupling provision.

111. With reference to the new PURPA Standards of EISA 2007, Section 532(b)(6)(B)(ii), referring to the provision of incentives for the successful management of energy efficiency programs, and Bailey Direct on page 11, lines 5 through 11, identify and describe any incentives Duke Kentucky believes are needed in addition to those authorized by the DSM statute, KRS 278.285.

112. With reference to the new PURPA Standards of EISA 2007, Section 532(b)(6)(B)(ii), referring to the provision of incentives for the successful management of energy efficiency programs, and the Stevie Direct Testimony on page 16, lines 2 through 8, explain whether or not Duke Kentucky believes that the Commission can authorize utilities to retain a portfolio of the cost-reducing benefits accruing from energy efficiency programs pursuant to the current DSM statute, KRS 278.285.

113. Refer to page 10 of Bailey Direct. Duke Ohio has recently implemented a form of decoupling that places a greater portion of the utility's fixed costs in the customer charge portion of the customer's bill. Describe the resulting impact on the customer charge and volumetric charge for Duke Ohio.

LG&E is to respond to the following questions:

114. Explain in detail how LG&E treats energy efficiency as a priority resource. Identify and describe any goals the utility has developed in terms of Mcf or Btus displaced.

115. Identify all DSM programs offered by LG&E. If appropriate, identify any programs offered that have not been specifically authorized by the Commission per KRS 278.285. Identify the annual Mcfs or Btus that the utility estimates are displaced by each program.

116. Identify and describe LG&E's current gas rate designs that promote energy efficiency. Identify the annual Mcfs or Btus that the utility estimates are displaced by each rate design.

117. With reference to Bellar Direct, page 12, lines 1 through 8, address the following:

a. Current literature describes a myriad of decoupling mechanisms. If applicable, describe specifically the form of decoupling LG&E supports.

b. Explain how the decoupling form supported by LG&E differs from simply the recovery of fixed costs entirely from per-unit fixed rates.

c. Explain how separating fixed-cost recovery of base or delivery charges from the volume of sales is a move toward decoupling.

118. Explain whether or not LG&E believes the DSM surcharge authorized by KRS 278.285 needs to be supplemented by a decoupling provision.

119. On page 12 of his testimony, Mr. Bellar states that adopting EISA Section 532(b)(6) would inhibit the Commission's current process for approving alternative rate

designs. Explain whether any rate designs included in LG&E's existing tariffs would be disallowed if the standard is implemented.

All jurisdictional electric utilities and all jurisdictional gas utilities that have been made parties to this case are to address question No. 120:

120. The American Recovery and Reinvestment Act of 2009 ("Stimulus Bill") contains a number of spending and tax measures crafted to inject more aggregate demand into the nation's sagging economy. Some of those measures impact, among other things, energy infrastructure. Certain provisions of EISA 2007 have been amended to reflect the incentives enacted by the Stimulus Bill, particularly in the area of smart grid technology. Explain whether or not your opinion on smart grid investments has changed in light of these amendments.



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