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March 19, 2013

Dennis G. Howard, II Assistant Attorney General Office of Rate Intervention 1024 Capital Center Drive, Suite 200 Frankfort, KY 40601-8204

RE: Case No. 2012-00428

Dear Mr. Howard:

Atmos Energy Corporation (Company) herewith submits its responses to the Initial Requests for Information in the above referenced case by the Attorney General of the Commonwealth of Kentucky by and through his Office of Rate Intervention.

Please feel free to contact me at <u>mark.martin@atmosenergy.com</u> or at 270.685.8024 if you have any questions and/or need any additional information.

Sincerely,

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Mark A. Martin Vice President – Rates & Regulatory Affairs

Enclosures

pc: Randy Hutchinson Service List

Atmos Energy Corporation 3275 Highland Pointe Drive, Owensboro, KY 42303-2114 P 270-685-8000 F 270-685-8052 atmosenergy.com

VERIFICATION

I, Mark A. Martin, being duly sworn under oath state that I am Vice President of Rates and Regulatory Affairs for Atmos Energy Corporation, Kentucky/Mid-States Division, and that the statements contained herein are true and correct as I verily believe.

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SUBSCRIBED AND SWORN TO before me, a notary public in and for the Commonwealth of Kentucky, by Mark A. Martin, Vice President of Rates and Regulatory Affairs, Atmos Energy Corporation, Kentucky/Mid-States Division, on this 19th day of March 2013.

Notary Public ID # 454643

Expiration date ________

1. Since the Commission initiated Consideration of *the New Federal Standards of the Energy Independence and Security Act of 2007,* Administrative Case No. 2008-00408, has the company changed its position regarding Smart Grid? If so, how?

RESPONSE: The Company has not changed its position.

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- 2. Are the technologies pertaining to the implementation of Smart Grid definitely known and proven?
 - a. If yes, explain in detail every aspect from the use of each technology from the company to the end-user.
 - b. If not, explain in detail what technologies are already advancing/improving as well as those that are envisioned on the immediate time horizon.

RESPONSE: No. From an LDC perspective, technologies continue to advance and improve resulting in more accurate and less expensive wireless metering devices.

- 3. In light of resent catastrophic storms over the past ten years (for example, the various ice storms, tornadoes, and strong winds), which electric companies have experienced, and for which the company may ultimately have sought regulatory assets, can the company affirmatively state that its basic infrastructure, including all of its generation, transmission and distribution facilities, have proven to be reliable 24 hours a day, seven days a week, 365 days a week? If not, for each and every storm that it affected the utility in excess of two days, please provide the following:
 - a. The number of days before the company's last ratepayer's electricity was restored for each storm.
 - b. The average number of days, or hours if applicable, that the average ratepayer's outage lasted for each storm.
 - c. The average financial loss for the average ratepayer for each storm, if known.

RESPONSE: Not applicable. Fortunately, the Company's distribution system has not been affected by the catastrophic storms over the last ten years. We have worked with other local utility companies as they have restored service to ensure that the restoration did not impact our operations.

4. Does the company agree with the Attorney General that electricity is not considered a luxury service but a necessary commodity of modern life? If not, why not?

RESPONSE: Yes, the Company agrees that electricity is a necessary commodity.

5. Does the company agree that the fundamental reliability of its electric grid - i.e., the delivery of electricity to the end-user 24/7/365 - is paramount to the end-user's ability to monitor and/ or conserve his/her demand or electricity consumption? If not, why not?

RESPONSE: Not applicable. The Company does not have its own electric grid.

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6. Please state whether the company is aware of any cybersecurity breaches effecting the electric and gas industries that have either occurred in the United States or internationally. If the answer is in the affirmative, please explain the details of the breaches without exposing information that is not already in the public domain.

RESPONSE: The Company is concerned that cyber security poses a real threat to our Country's energy infrastructure. The Company is aware of attempts, but not aware of any breaches.

7. Please confirm that the company is aware that the prior United States Secretary of Defense Leon Panetta, in speaking on the vulnerability of the nation's electric grid with the consequential safety and security concerns that ensue, warned the Senate Appropriations Committee on Defense that the risk to the United States could even be considered the equivalent of a "digital Pearl Harbor¹.

RESPONSE: The Company is aware of such claim.

a. Is this concern of the vulnerability of the nation's electric grid shared by the company? If not, why not?

RESPONSE: Please see the Company's response to #6.

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- 8. With regard to cybersecurity in general, can the company unequivocally confirm that its system reliability is not vulnerable to a cybersecurity attack? If not, what could be the consequences? Please explain in detail as much as possible for the following:
 - a. the company, and
 - b. the company's ratepayers.

RESPONSE: While the Company takes cyber security seriously and has taken steps to protect it, the Company cannot guarantee that a breach could not occur. Consequences to the Company would include financial loss due to the inability to meet its firm obligations. Consequence to our customers would include the loss of service. Loss of service would negatively impact industrial customers from making their product(s), commercial customers from serving their customers and residential customer from having basic necessities such as heat and hot water.

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9. Please provide the names of the standards, protocols or policies which the company observes and/or implements in its maintaining its system reliability from cybersecurity threats.

RESPONSE: Please see the Company's response to Staff #115.

10. Please provide copies of the standards, protocols or policies which the company observes and/or implements in its maintaining its system reliability from cybersecurity threats.

RESPONSE: Please see the Company's response to Staff #115.

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- 11. With regard to cybersecurity in general, can the company unequivocally confirm that its ratepayers' privacy of data cannot be compromised or otherwise divulged to any individual or entity not associated with the company, or a qualified third-party which has issues a non-disclosure statement or the ratepayers? If not, what could be the consequences? Please explain in detail as much as possible for the following:
 - a. the company, and
 - b. the company's ratepayers.

RESPONSE: While the Company takes cyber security seriously and has taken steps to protect itself and its customers, the Company cannot guarantee that a breach could not occur. A consequence to the Company would include financial loss due to disruptions in billing as well as the costs to mitigate the affects of a breach. An intangible consequence would include the loss of trust from our customers. A consequence to our customers would include fraudulent use of confidential date for possible identity theft.

12. If a qualified third-party that has agreed to a non-disclosure statement and obtains ratepayers' private information, what guarantees exist that the information will not be disclosed, whether intentionally or unintentionally?

RESPONSE: The Company does not provide customer specific private information to third parties, unless required by law to do so. If served, for example, with a subpoena requesting private information on a specific customer, the Company would take appropriate action to safeguard the privacy of the information including, if necessary, filing a motion with the issuing court or administrative agency that the information be filed under seal.

13. Please provide the names of the standards, protocols or policies which the company observes and/or implements in its maintaining its ratepayers' privacy data from cybersecurity threats.

RESPONSE: Please see the Company's response to Staff #115.

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14. Please provide copies of the standards, protocols or policies which the company observes and/or implements in its maintaining its ratepayers' privacy data from cybersecurity threats.

RESPONSE: Please see the Company's response to Staff #115.

15. Given the vulnerability of the electric grid to cyberattacks, describe what analog (nondigital) means the company will have in place to insure reliability, including but not limited to the maintenance of legacy systems.

RESPONSE: Please see the Company's response to Staff #115.

16. What are the company's estimated costs to invest in order to fully implement Smart Grid?

RESPONSE: The Company defers to the electric providers on the estimated cost to fully implement a Smart Grid.

a. Do any cost estimates include results of any modeling that may show the degree of exposure to the following risks: (a) hacking; (b) electronic magnetic pulses (EMPs, whether related to solar flares or otherwise); and/or (c) weather events? If so, provide a list of the modeling software used to produce any estimates, the scenarios and sensitivities examined, and any and all such results.

RESPONSE: The Company defers to the electric providers on what scenarios are included and not included in such estimates.

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17. Please explain in detail what benefits, if any, the company expects its ratepayers to realize because of Smart Grid?

RESPONSE: The Company defers to the electric providers to discuss specific issues pertaining to an electric Smart Grid.

a. Does the company believe that societal benefits are to be considered in evaluating benefits? If so, detail those societal benefits and how they may be used in evaluations? If not, why not?

RESPONSE: The Company defers to the electric providers to discuss specific issues pertaining to an electric Smart Grid.

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18. Would the company agree to strict limits and/or caps on ratepayer costs? If not, why not?

RESPONSE: The Company assumes that this question is directed towards an electric Smart Grid. As such, the Company defers to the electric providers to discuss specific issues pertaining to an electric Smart Grid.

19. Would the company agree to allow ratepayers to opt-out of smart meter deployment? If not, why not?

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20. Can the company quantify measureable and significant benefits that the ratepayers will realize, including a monetary quantification of net savings (if any) to ratepayers?

21. Please explain in detail what detriments, if any, the company expects its ratepayers to realize because of Smart Grid? Include in the explanation both new costs as well as stranded costs.

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22. What are the company's estimated costs which the company expects the ratepayers to realize?

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23. What are the company's estimated costs which the company expects its shareholders, if any, to realize? Include in the explanation both new costs as well as stranded costs.

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24. Does the company agree that its costs to invest and implement Smart Grid will be different than other utility companies? If not, why not?

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25. Does the company agree that its ratepayers' benefits, whether financial or otherwise, may differ from one utility to another upon implementation of any Smart Grid technology? If not, why not?

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26. Can the company guarantee that the deployment of Smart Grid will not interfere with the regulatory compact whereby the ratepayers will receive safe, adequate and reliable service at fair, just and reasonable costs? If not, why not? Explain in detail.

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- 27. Answer the above question with the definition of "fair, just and reasonable costs" as being economically feasible for the end-user.
 - a. Provide any cost-benefit analysis that the company has run or will run to make the determination of economically feasible to the end-user.

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28. Regarding time of use (TOU) rates, can the company confirm that low-income ratepayers will not be disproportionately affected more than non-low-income customers? If not, why not? (Provide in the answers in any studies, reports, analyses and relevant data.)

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- 29. With regard to TOU rates, does the company have any history with any such programs? If so, explain in detail with particular facts as to:
 - a. the number of customers who participated;
 - b. whether they remained on the program;
 - c. whether they saved money on their bills; and
 - d. whether the customers ultimately reduced their usage.

- 30. What proposals will the company present to deal with technological impediments to the broad use of Smart Grid, including but not limited to the following:
 - a. low and fixed-income individuals who do not have Internet resources at their home;
 - b. multiple forms of telecommunications technology used to access information (i.e., analog, cellular, VOIP); and
 - c. multiple and proprietary technology and software options in the market that may lead to issues of compatibility?

31. Assume: Full deployment of Smart Grid at the residential ratepayer level consisting of a household with only Energy Star appliances, an HVAC system with at least a 15 SEERS rating, etc. and any smart grid apparatuses/equipment for interconnectivity with the electricity provider (including generation, transmission and distribution).

- a. Does the company agree that if full deployment of the magnitude described in the above question occurs, the average residential ratepayer could experience a significant capital outlay?
- b. If so, what are the projected costs?
- c. If no costs are anticipated by the electric provider, why not?

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32. In regard to appliances, such as refrigerators or lighting, does the company agree that in the long run, it is cheaper for the end-user himself/herself to make that capital outlay for the purchase of the appliance or lighting than have the company provide the appliance(s) and build the costs into the company's ratebase which would then include a profit component for the company on angoing basis?

RESPONSE: Please see the Company's response to #18.

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33. Confirm that the Smart Grid depends, at least in part, if not exclusively, on telephony (whether landline, fiber optic, wireless or VOIP) at the end-user level for the end-user to participate in his/her altering his/her electricity usage patterns or behavior.

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34. If the answer to the above question is in the affirmative, confirm that limited access or even complete absence of access to telephony will interfere with, if not prevent, the deployment of the Smart Grid at the end-user level.

35. If the company intends to install infrastructure / software allowing for the transmission of Smart Grid / Smart Meter data over its distribution / transmission conductors and networks, provide estimates, or actual numbers, for the costs of doing so.

- 36. Is there a standard communications' protocol that the company will deploy in its Smart Grid that will be interoperable regardless of the communications provider?
 - a. If not, explain how the company plans on addressing any problems that might arise.

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37. If improved reliability is the goal of Smart Grid / Smart Meter, would it not be more costeffective to invest in infrastructure hardening (for example, utilizing protocols and standards developed and implemented by many utilities in hurricane-prone regions)?

- **38.** Describe the company's plans to avoid obsolescence of Smart Grid / Smart Meter infrastructure (both hardware and software) and any resulting stranded costs. (This question and the subparts should be construed to relate to both the Smart Grid Investment Standard as well as the Smart Grid Information Standard.)
 - a. Describe who would pay for stranded costs resulting from obsolescence.
 - b. With regard to the recovery of any obsolete investment, explain the financial accounting that should be used (as in account entry, consideration of depreciation, time period involved, etc.).

39. With regard to interoperability standards, does the company agree that Smart Grid equipment and technologies as they currently exist, and are certain to evolve in the future, are not a one size fits all approach to the Commonwealth?

- 40. Is dynamic pricing strictly defined as TOU?
 - a. If not, explain why not.
 - b. Is the company requesting that dynamic pricing be voluntary or involuntary, if at all?

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- 41. Please explain in detail whether the company has any dynamic programs in place in Kentucky.
 - a. For each program, provide the number of participants.
 - b. For each program, state whether those participants on aggregate have saved costs on their bills.
 - c. For each program, state whether those participants on aggregate have saved costs on their bills.
 - d. For each program, state whether each participant has saved costs on his/her/its bills. (The question is not intended to request any private identifier information.)

RESPONSE: Not applicable.

42. Does the company recommend the Commission to formally adopt the EISA 2007 Smart Grid Investment Standard? If not, why not?

RESPONSE: No. As stated in the Joint Brief filed on January 13, 2012 in Case No. 2008-00408, the Company believes formal adoption is not necessary to achieve the Commission's goals of promoting increased energy efficiency and Smart Grid development.

43. Does the company recommend the Commission to formally adopt the EISA 2007 Smart Grid Information Standard? If not, why not?

44. Does the company recommend issuing an IRP Standard?

RESPONSE: Not applicable.

a. If so, what concerns does the company have with a standard, including "priority resource," especially as it relates to cost-effectiveness?

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b. What concerns would the company have with a standard as it affects CPCN and rate applications?

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45. Does the company agree that any investment in grid modernization infrastructure should be done before deploying TOU rates or dynamic pricing? If not, why not?

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46. Regarding the Kentucky Smart Grid Roadmap Initiative (KSGRI), does the company believe that it provides the fundamental basis for the Commonwealth as a **whole** to proceed with Smart Grid given its lack of incorporating all electric utilities such as municipalities and the TVA, along with its distribution companies? If yes, please explain why. If not, please explain why not.

RESPONSE: The Company is not aware of the KSGRI.

47. Does the company believe that the Commonwealth's electric industry is, or will become, so interconnected that all electric entities in any way involved or associated with the generation, transmission and / or distribution of electricity should be included and participate to some degree with Smart Grid if it is to come to fruition? If yes, please explain why. If not, please explain why not.

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48. Does the company believe that any Smart Grid Investment will trigger a CPCN case? If not, why not??

49. Does the company believe that Dynamic Pricing should be economically feasible for the enduser and be supported by a cost- benefit analysis?

50. If additional education is contemplated with the deployment of the Smart Grid, please explain in detail if known or contemplated.