

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:

In the Matter of:

APPLICATION OF DUKE ENERGY KENTUCKY, )  
INC. FOR (1) A CERTIFICATE OF PUBLIC )  
CONVENIENCE AND NECESSITY )  
AUTHORIZING THE CONSTRUCTION OF AN ) CASE NO.  
ADVANCED METERING INFRASTRUCTURE; (2) ) 2016-00152  
REQUEST FOR ACCOUNTING TREATMENT; )  
AND (3) ALL OTHER NECESSARY WAIVERS, )  
APPROVALS, AND RELIEF )

**ATTORNEY GENERAL'S RESPONSES TO DATA REQUESTS  
OF THE KENTUCKY PUBLIC SERVICE COMMISSION STAFF**

Comes now the intervenor, the Attorney General of the Commonwealth of Kentucky, by and through his Office of Rate Intervention, and submits the following responses to data requests of the Kentucky Public Service Commission Staff.

Respectfully submitted,

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*Certificate of Service and Filing*

Counsel certifies that: (a) the responses set forth herein are true and accurate to the best of his knowledge, information, and belief formed after a reasonable inquiry; (b) the foregoing is a true and accurate copy of the same document being filed in paper medium; (c) pursuant to 807 KAR 5:001 § 8(7)(c), there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and (d) the original and copy in paper medium is being filed with the Commission on August 16, 2016.

I further certify that in accordance with 807 KAR 5:001 § 4 (8), the foregoing is being contemporaneously provided via electronic mail to:

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this 15<sup>th</sup> day of August, 2016



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Assistant Attorney General

WITNESS/RESPONDENT RESPONSIBLE:

Alvarez

QUESTION No. 1

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Refer to the Direct Testimony of Paul Alvarez ("Alvarez Testimony"), page 6, line 1, which states that cost-benefit analysis is standard practice in smart meter applications, and to pages 19 and 20, where a bullet-point list of data supporting a cost-benefit analysis is presented.

- a. Other than the bullet-point items listed on pages 19 and 20, what items of data are typically provided by a utility in the "standard practice" statement?
- b. Identify the data items from pages 19 and 20, and others identified in the response above to Item 1.a., that Duke Energy Kentucky failed to include in its cost-benefit analysis.
- c. Explain why Mr. Alvarez believes that it is industry standard practice for a utility to request regulatory approval to upgrade or replace its meter system as part of a rate case and provide a list of those cases which reflect this practice, identifying the jurisdiction and citing the case number and style.
- d. Identify any cases submitted to the Kentucky Public Service Commission that include meter system upgrades or replacements (or other requests for certificates of public convenience and necessity) as part of a rate case.

RESPONSE:

- a. Mr. Alvarez' testimony states that the bullet-point items listed on pp. 19-20 are typically made available in rate cases. His testimony does not indicate that these items are typically made available in smart meter applications, though one can readily understand and appreciate how the bullet-point items would be critically important to evaluating the benefits claimed by a utility in a smart meter application. Mr. Alvarez believes this is one reason why it is important to combine smart meter applications with rate cases, so that the bullet-point items identified on pp. 19-20 are made available for review.

QUESTION No. 1

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In addition to the bullet-point items listed on pp. 19-20, items typically found in a rate case which would be valuable in evaluating the proposed benefits of a smart meter application are proposed rate designs. As discussed in my response to Question 6(c) below, the characteristics of some rate designs will impact the amount of benefits customers will collectively secure from smart meters and should therefore be a part of the cost-benefit analysis.

- b. None of the items listed on pp. 19- 20 are included in the Company's application, but the Company included benefits from several of the categories listed on pp. 19-20 in its cost-benefit analysis. The issue that Mr. Alvarez's testimony addressed is that without the benefit of information typically provided in a rate case, including the items listed on pp. 19-20 of his testimony, the reasonableness, assumptions, and probability of achievement of the benefits the Company estimates in its cost-benefit analysis cannot be determined.
- c. Mr. Alvarez's testimony (p. 6, line 1) states that providing cost-benefit analyses has become standard practice for smart meter applications. His testimony does not indicate that requiring smart meter applications be submitted as part of a rate case is standard practice today. Rather, his testimony lists several consumer benefits associated with examining smart meter applications in the context of a rate case, including: 1) the rate impact of stranded cost recovery can be determined in advance; 2) the shifting of several types of risk from shareholders to ratepayers is reduced; 3) The design of new rates made possible by smart meters can be determined in advance; and 4) the data required to properly evaluate the Company's cost-benefit analysis is more readily available. These consumer benefits form the basis of my recommendation that the Company's smart meter applications should be considered in the context of a rate case.

Examples of Commissions that have required smart meter/smart grid applications to be considered in the context of a rate case can be found below.

Application of Duke Energy Kentucky, Inc. for a CPCN for  
Advanced Metering Infrastructure, Etc.  
Case No. 2016-00152

Attorney General's Responses to Data Requests of the Kentucky Public Service Commission Staff

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<b>Jurisdiction</b>	<b>Case Number</b>	<b>Description</b>
<b>New York</b>	14-M-0101 (Order on DSIPs dated April 20, 2016, page 18.)	Reforming the Energy Vision – requires New York’s 6 IOUs to propose distribution system investment plans (DSIPs), including smart meters specifically, as part of rate cases.
<b>Indiana</b>	44720 (Order dated June 29, 2016, page 14.)	Duke Energy Indiana grid modernization application (Summary of IURC-approved settlement agreement in which the parties agreed that AMI be dropped from the current application, and that the parties would not oppose AMI projects proposed in a rate case subject to normal prudence review.)
<b>California</b>	Public Utility Code Chapter 769, ¶ (d)	“distribution infrastructure necessary . . . shall be proposed and considered as part of the next general rate case for the corporation.” (not specific to smart meters for Pacific Gas & Electric, Southern California Edison, and San Diego Gas & Electric)

- d. Mr. Alvarez is aware that in Case No. 2006-00172, *Application of The Union Light, Heat and Power Co. d/b/a Duke Energy Kentucky for an Adjustment of Electric Rates*, the Company sought and obtained Commission approval to deploy 40,500 AMI meters over a 3-year period utilizing PLC technology. This is the same pilot program that is discussed in the application in the current case. The estimated capital cost provided in the 2006 case was \$14 million. The company’s application in that case included a CPCN request, if the Commission found a CPCN was necessary. However, the Commission found that the CPCN was not necessary because the program did not represent a significant investment. Mr. Alvarez notes that as discussed in the settlement agreement attached to the Final Order in that case dated Dec. 21, 2006: “The revenue increase . . . includes recovery of costs, net of cost savings relating to Duke Energy Kentucky's implementation of [its AMI] program . . .” During the 2006 rate case, the parties and Commission staff doubtlessly had full opportunity to examine all of the factors set forth in the bulleted points in Mr. Alvarez’s testimony at pp. 19-20, as well as rate designs. In addition, the settlement agreement indicates that issues before the Commission in that case included, but were not limited to, the overall revenue increase, fuel costs, new rate designs, depreciation rates, and return on equity.

WITNESS/RESPONDENT RESPONSIBLE:

Alvarez

QUESTION No. 2

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Refer to the Alvarez testimony, pages 7-8. Provide the reasons why the undepreciated meter costs should be included in the cost benefit analysis.

RESPONSE:

Mr. Alvarez believes undepreciated meter costs should be included in the cost-benefit analysis based on the following: 1.) The assets would be rendered prematurely obsolete by the Company's CPCN if approved; 2) At some point, the Company will ask to recover the cost of these stranded assets from customers; 3) It is likely the Company's stranded asset cost recovery request would be approved, resulting in higher customer rates; and 4) The Company's argument for CPCN approval is based entirely on a customer cost-benefit analysis.

If a utility's CPCN will render used and useful assets prematurely obsolete, and customers are likely to pay for both new and obsolete assets simultaneously, the customer impact of obsolete asset cost recovery should be included in the customer cost-benefit analysis. Mr. Alvarez believes this is particularly true for CPCN cases, such as this one, in which the only argument the Company offers for CPCN approval is a favorable customer cost-benefit analysis.

Application of Duke Energy Kentucky, Inc. for a CPCN for  
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Case No. 2016-00152

Attorney General's Responses to Data Requests of the Kentucky Public Service Commission Staff

WITNESS/RESPONDENT RESPONSIBLE:

Alvarez

QUESTION No. 3

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Refer to the Alvarez testimony, page 9, lines 5-6, which state that "customers will pay carrying costs on the stranded assets until the next rate case is filed and adjudicated, which may be a number of years." Identify the carrying costs referred to in this statement.

RESPONSE: Carrying costs could include any or all of those listed below.

- Profits on rate base associated with stranded assets
- Taxes on profits
- Interest expense
- Depreciation expense
- Other expenses (such as those associated with stranded asset decommissioning and disposal)

WITNESS/RESPONDENT RESPONSIBLE:

Alvarez

QUESTION No. 4

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Refer to the Alvarez Testimony, page 16, lines 13-17. Explain why the AG would be denied "the opportunity to have a say in the offer, design, and promotional characteristics which determine the benefits that time-varying rates deliver" if time-varying rate schedules were proposed in a case that was not a rate case.

RESPONSE: The AG has limited resources to litigate Company proceedings. As it stands, the hypothetical situation Staff refers to in Question 4 (time-varying rates proposed outside of a rate case) involves at least 3 different Company proceedings: 1) This CPCN; 2) a future rate case; and 3) a case on time-varying rates. Such an approach weakens the AG's litigation opportunity simply by stretching limited AG resources across 3 different proceedings. It is my understanding that litigation efficiency is a Commission goal as well as an AG goal. Finally, it is worth mentioning that customers ultimately foot the bill for litigation, and that three different proceedings will likely be much more costly to litigate than a single proceeding.



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WITNESS/RESPONDENT RESPONSIBLE:

Alvarez

QUESTION No. 5

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Refer to the Alvarez Testimony, page 17, lines 8-11. Explain why the AG would be denied "the opportunity to state its opposition to default demand rates, increasing the likelihood that such rates could become some type of presumptive outcome of smart meter deployment in the future" if a default demand rate was proposed in a case that was not a rate case.

RESPONSE: See response to Staff question 4 above.

WITNESS/RESPONDENT RESPONSIBLE:

Alvarez

QUESTION No. 6

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Refer to the Alvarez Testimony, page 22.

- a. Refer to the first bullet point. Identify the parameters that Mr. Alvarez and the AG would propose to accomplish the recommendation set forth in this bullet point.
- b. Refer to the third bullet point. Clarify the intent of this bullet point and explain why the Commission should address rate design parameters in this proceeding.
- c. Refer to the fourth bullet point. Explain why it is necessary to establish specific requirements for a time-varying rate option in this proceeding rather than waiting until the proceeding in which such a rate option is proposed.

RESPONSE:

- a. In the event the Commission elects to consider, and then approves, the CPCN submitted by the Company, Mr. Alvarez believes the parameters the Commission should seek to define in advance, related to the write-off of assets made obsolete by the CPCN, include:
  1. The total dollar amount of stranded assets for which recovery is authorized;
  2. The timeframe over which stranded asset costs will be recovered from customers;
  3. Other determinants of rate impact as listed in the response to Question 3
    - o Profits on rate base associated with stranded assets
    - o Taxes on profits
    - o Interest expense
    - o Depreciation expense
    - o Other expenses (such as those associated with stranded asset decommissioning and disposal)
- b. The intent of this bullet point is to prohibit, limit, or place conditions upon, certain types of rates enabled by smart meters the AG believes to be detrimental to customers. These include mandatory demand rates, and mandatory time-varying rates.

QUESTION No. 6

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- c. In the event the Commission elects to consider, and then approves, the CPCN submitted by the Company, the characteristics of time-varying rate designs and associated promotional efforts will impact the type and amount of benefits customers will collectively secure from such rate designs. Such benefits should be a part of the cost-benefit analysis. Mr. Alvarez notes the Company includes no benefits from time-varying rate designs in its benefit-cost analysis and makes no commitment to offer time-varying rates (on a voluntary basis). Smart meters enable time-varying rates; such rates could be offered by the Company to its customers on a voluntary basis; and such rates could (depending on characteristics) serve to improve the overall cost-benefit ratio for all customers.

WITNESS/RESPONDENT RESPONSIBLE:

Alvarez

QUESTION No. 7

Page 1 of 1

State whether Mr. Alvarez and the AG are supportive of the depreciation lives requested by Duke Kentucky for the proposed meters and modules. If they are not supportive, provide a specific recommendation regarding depreciation lives.

RESPONSE:

The depreciation lives sought by the Company for smart meters and gas meter communications modules are consistent with those sought by other utilities for these devices. However, Mr. Alvarez has two concerns Staff should consider. First, the experience regarding the actual lives of these devices is limited as they are relatively new. For example, smart meters were not installed in great numbers until about 2009 or so, meaning that the estimated 15-year life will not be verifiable until approximately 2024 (or perhaps slightly earlier if the smart meters begin to fail in large numbers in advance of the estimated useful life). With 6 or 7 years' experience at this point, Mr. Alvarez is not aware of smart meters failing in large numbers. Second, he notes that these depreciation lives are significantly in excess of manufacturers' warranties on these devices. If the meters last the full 15 years, it should not pose a problem for ratepayers.

From a broader perspective, Mr. Alvarez believes Staff's concern with the impact that the proposed depreciation lives will have on customer rates is well-placed. Mr. Alvarez encourages Staff to explore this and any other as of yet unknown rate impact issues. Any uncertainty associated with the CPCN as submitted supports his recommendation that such a CPCN be considered as part of a base rate case.