

**BEFORE**

**THE PUBLIC UTILITIES COMMISSION OF OHIO**

<b>In the Matter of the Commission’s</b>	)	
<b>Review of the Ohio Power Company’s</b>	)	<b>Case 12-3129-EL-UNC</b>
<b>Distribution Investment Rider Work</b>	)	
<b>Plan Resulting from Commission</b>	)	
<b>Case No. 11-346-EL-SSO et al.</b>	)	

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**OHIO POWER COMPANY’S MEMORANDUM CONTRA TO OFFICE OF  
OHIO CONSUMERS’ COUNSEL’S APPLICATION FOR REHEARING**

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**I. Introduction**

The Office of the Ohio Consumers’ Counsel (OCC) filed an application for rehearing in this docket on June 28, 2013, confusing its role with that of the Commission and its Staff, asking the Commission to rely on its preferences versus following the path laid out by the Commission for Ohio Power Company (“AEP Ohio” or “Company”) to work the Commission Staff to develop a plan for the distribution investment rider (DIR). The facts are that the Company did meet with the Commission Staff to develop a plan, filed that plan with the Commission, and the plan meets the purpose of the establishment of the rider. The standard to be met in this case is not the preference of OCC as an intervenor. The standard is the cooperation of the Company and the Staff to provide the Commission with notice of plan to recover prudently incurred distribution infrastructure costs to maintain AND improve reliability. OCC’s application for rehearing incorrectly chooses to focus on only parts of the mission of the mechanism. The Commission order on May 29, 2013 (DIR Order) approving the plan focuses on the entirety of the purpose.

## **II. Response to OCC's Grounds for Rehearing**

AEP Ohio filed comments previously on February 1, 2013, responding to OCC's comments filed in this docket. Many of the issues raised in the application for rehearing were also raised OCC's prior arguments. AEP Ohio incorporates the points made in its previous comments in this memorandum contra the application for rehearing and asks the Commission to deny rehearing.

### **A. AEP Ohio's plan complies with the Commission's order in Case 11-346-EL-SSO et al.**

OCC incorrectly argues that the plan filed by Company does not comport with the structure ordered by the Commission in the August 8, 2012 Opinion and Order in Case 11-346-EL-SSO et al. ("ESP II Order"). OCC's argument appears to rely on the Commission language dealing with the quantification of reliability improvements expected. (OCC App. for Rehearing at 3-5). OCC ignores the entirety of the Company filing and ignores a basic underlying premise of the investment mechanism to **both maintain and improve reliability**.

#### **1. OCC's first ground for rehearing is without merit and relies on an incomplete view of the purpose of the Distribution Investment Rider.**

A review of the plan filed by the Company shows that AEP Ohio has quantified a tangible reliability improvement where applicable in the DIR Plan. These improvements are located under the column heading labeled "Measures for Reliability Improvements." As OCC states, AEP Ohio did work with Staff on each component of the plan and fully discussed the challenges of quantifying many of the given components since there are many asset renewal components to help address future reliability impacts, and not those which will be seen within a year of implementation.

As the Commission ordered the plan was to **both maintain and improve reliability**. It would appear that OCC believes that only programs that decrease the CAIDI/SAIFI numbers for the Company are worthy of inclusion in the program, but that assumption is false. The Commission understood when approving the DIR that replacing the aging infrastructure **before** it fails is an important aspect of the DIR program. In fact, in the justification for the DIR in the ESP II proceeding, the Company described the need to ensure existing distribution equipment did not fail.<sup>1</sup> The Commission then approved the plan to both maintain and improve reliability based on this testimony. The DIR can include day to day capital investment items and is a mechanism for a capital return on the dollars invested outside of waiting for the next rate case filing. As the Commission stated in its Entry on Rehearing in the Company's modified ESP II proceeding, "[t]he Commission found it necessary to adopt the DIR to maintain utility reliability as well as to maintain the general alignment of customer and utility service expectations." (11-346-EL-SSO et al., January 30, 2013 Entry on Rehearing at Para. 50.) The programs included in the DIR are related to the investment in the distribution operations related to customer service and are therefore properly included in the approved DIR focused on customer and utility service expectations. The Company and Commission Staff then worked together to develop a comprehensive plan to do both these actions.

As discussed with the Staff when complying with the ESP II Order to work cooperatively to devise a plan, there are many ways to quantify reliability impact outside of using an overall SAIFI/CAIDI value. Not everything done in the plan will be to address a current issue reflected in the SAIFI/CAIDI numbers. Workplans such as

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<sup>1</sup> The Company attached the testimony of Company witness Thomas Kirkpatrick from the ESP II proceeding describing the purpose of the request for the DIR program to both maintain and improve reliability.

underground cable replacement will have a huge reliability impact on those immediate customers served by that underground cable, although you will not see any impact in the overall CAIDI/SAIFI values due to the lower customer count affected by most underground subdivisions. If you focused on a SAIFI/CAIDI value only for a program such as that, you would think it would add little to no value to do the program, but in fact, the program is of huge significance to older subdivisions with aging underground cable.

The Company and Commission Staff presented the Commission with a plan that looked at the distribution system as a whole, addressed all the needs it could at this time, and recognized a structure to ensure ongoing interaction and adjustments based on what is learned as the plan is implemented or other issues arise. The Company is attempting to manage a distribution system and the plan approved by the Commission recognizes that fact. The attack on the Commission order is OCC's limited view of the overall purpose of distribution investment and on the work that the experts from the Company and the Staff, charged by the Commission to oversee the day-to-day operations of utilities, who worked cooperatively together to merge the reality of managing a company and the needs of the regulator in a comprehensive plan that would make sense. That is what the Commission approved and OCC's opinion focused on only part of the picture is not a valid ground for rehearing and should be denied.

The Company included an expected reliability improvement, where applicable, based on each individual program in the Workplan. Where a reliability improvement would not be expected, in such cases as proactive distribution infrastructure replacement, no improvement was reflected since that work would instead address future outages and ensure system performance does not deteriorate. The Company therefore has complied

with the Commission Order by quantifying the expected improvements based on each program of the DIR Workplan.

**2. OCC's second ground for rehearing reiterates its first and is also without merit because it relies upon false assumptions based on OCC's narrow view of the Commission's ESP II Order.**

In its second ground for rehearing, OCC relies upon the same contention that the Workplan approved by the Commission did not quantify reliability improvements, and therefore states that customers should not be required to pay for improvements. (OCC App. for Rehearing at 5-6.) OCC also suggests that the Company will not comply with future Commission orders making any representations in the Commission's DIR Order ineffective.

Again, OCC appears to provide an opinion without all the facts. As indicated above, the plan filed did indicate reliability improvement in a number of areas where improvement could be quantified. In other areas the plan provided real improvements to real customer subsets that cannot be quantified in a CAIDI/SAIFI number but will have an absolute impact on customers. And in still other cases the plan prevents potential future reliability problems by replacing aging infrastructure before it fails. These are the issues discussed and developed in the conversations with Commission Staff while working cooperatively to develop the plan. The Commission directed its Staff and the Company to work together to discuss these issues and develop the best way to present a plan in the absence of litigants questioning every move from their typical litigation positions. The Commission provided a process for the Company and its Staff to get into the details and develop a workable plan that would foster cooperation and oversight in the

coming years so the Commission Staff would understand the hurdles a utility deals with in its day-to-day practice running a distribution company.

OCC's argument that the Company did not comply with the DIR Order and therefore are unlikely to comply with the DIR Order for the 2014 workplan is an inappropriate statement. OCC's indictment of the Company's actions in this docket to date is also an accusation that the Commission Staff did not follow the ESP II Order and that the Commission's approval of the plan also did not comply. OCC mistakes its preferences for how it would approach the issue (an approach that fails to recognize the very real need to replace aging assets before failure) with compliance with past Commission orders.

It only takes one read of the Workplan to see that the plan developed by AEP Ohio and the Staff seeks to understand the benefit to the customer, even without a linked SAIFI or CAIDI value. OCC mistakenly argues that it will be difficult to evaluate the effectiveness of the plan. (OCC App for Rehearing at 6.) Ignored by OCC is the fact that the Commission audits AEP Ohio on this work to ensure money is being spent correctly in these work plan categories. OCC should not use this rehearing application to provide it an avenue to assume the role of the Commission as prudency judge. The Commission has set up a check and balance for this rider mechanism. OCC should allow the Commission and its Staff to do its work and not be accused of unlawfully or unreasonably acting when it develops a system under its discretion and has the appropriate checks and balances in place to review actions in that action. OCC's request for rehearing should be denied.

**B. The DIR is properly focused on the merged Ohio Power Company distribution system as a whole and not a redundant application of programs in two distribution companies.**

OCC's third ground for rehearing seeks to force the Company to divide its efforts in its DIR Workplan into two separate categories to recognize that the merged AEP Ohio used to be two companies and therefore should be managed under a DIR for two companies. (OCC App. for Rehearing at 7-8.) OCC relies upon the two rate zones still in existence for AEP Ohio and the reliability standards established in 2010, when there were two different companies.

Ohio Power and Columbus Southern Power companies have officially merged into Ohio Power Company. Although distribution rates may be different for the two rate zones due to deferrals, the DIR rate for both zones is the same. More importantly, operationally there is only one company which is AEP Ohio. AEP Ohio can no longer split spend cost based on a company which no longer exists. The purpose of a merger is not to maintain pre-merger functions and operations. The Commission found the basis for the two rate zones based in the wrapping up of deferrals from past actions. Requiring ongoing separation of the business functions just to perpetuate the existence of separate companies that no longer exists voids the approved merger.

OCC argues that the fact that the AEP Ohio has two reliability standards for each of the former companies is a reason to require separation of the Workplan into two companies. That argument is also without merit because the reliability standards were set before the merger and are under review to recognize the merger. The fact is that Columbus Southern Power Company does not exist. AEP Ohio filed for new reliability standards in June of 2012 in Case No. 12-1945-EL-ESS. The Company has moved

operations to a combined company and has made filings to recognize that reality. OCC's argument seeks to ignore the reality of the merger. The Workplan developed by the Staff and Company and then approved by the Commission understands the DIR is more effective if it is allowed to operate and address the distribution system as a whole. OCC's ground for rehearing should be denied.

The OCC comments were also directly addressed in the Commission's Entry on Rehearing in the Company's modified ESP II proceeding where the Commission denied Kroger's request to separate the DIR into unique costs for unique parts of each rate zone. (11-346-EL-SSO et al., January 30, 2013 Entry on Rehearing at Para. 49.) Specifically, the Commission pointed out that the DIR is a new plan approved in the ESP (after the merger) and will address AEP Ohio as a whole. (Id.) The Commission pointed out that maintaining separate and distinct DIR accounts and actions would be continuing CSP and OP as separate entities and that is not the intent of the DIR. (Id.) The Commission already spoke on this matter in the modified ESP Rehearing and should apply that same position to the same argument being made under this docket. OCC's ground for rehearing should be denied.

**C. OCC's argument on the interaction between Staff and the Company is an improper request for rehearing of the ESP II Opinion and Order.**

OCC asserts in its fourth ground for rehearing that the Commission acted unlawfully or unreasonably by relying on information provided to its Staff in the development of the plan. (OCC App. for Rehearing at 8-9.) OCC ignores the fact that the Company was instructed to work with the Commission Staff to develop the plan and file the results with Commission in the ESP II Order. Any attack on the process provided by the Commission



in the development of this plan ordered in the ESP II Order is now an untimely request for rehearing of that August 2012 order.

AEP Ohio followed the Commission ESP II Order to work with Staff and develop a comprehensive DIR Workplan. The Commission ordered the Company to “work with Staff to develop the DIR plan and file the plan for Commission review in a separate docket by December 1, 2012.” (ESP II Order at 47.) The Company worked with the Staff and developed a plan and filed that plan as instructed by the Commission. The order did not state that every iteration of the plan needed to be docketed for OCC review and approval. Once a plan was agreed upon, then the plan was made available publically for comment and feedback.

OCC’s ground for rehearing is an improper and untimely request for rehearing of the August 2012 ESP II Order. The Commission approved the DIR mechanism, approved the audit process for the DIR spending, and instructed the Company to work with its Staff to develop the DIR Workplan in the ESP II Order. (ESP II Order at 46-47.) OCC now takes issue with the discretion exercised by the Commission in that proceeding and the interactions between the Commission Staff and the Company. According to R.C. 4903.10, and O.A.C. 901-1-35, OCC has thirty days from the Opinion and Order to seek rehearing. This completely separate compliance docket is not the appropriate place to appeal the initial Commission decision.

The process laid out by the Commission served to direct the Company to work with the Commission Staff to develop a DIR Work Plan, file the Work Plan in a public docket, and allowing for a comment period to ensure input on that result. The Company and Staff have complied with the Commission’s directive and developed a manner to revisit

the programs and learn from the implementation of the plan. OCC had the opportunity to raise specific concerns. Now the Commission can consider those comments and allow the Company to implement the plan with the Commission-ordered review process already in place. The Commission need not entertain the attack on the exercise of its discretion in setting up this process in the ESP II Order. OCC's ground for rehearing should be denied.

### **III. Conclusion**

Ohio Power respectfully requests the Commission consider the comments provided in response to the Application for Rehearing and uphold the May 29, 2013 Opinion and Order in this case.

Respectfully submitted,

//ss//Matthew J. Satterwhite

Matthew J. Satterwhite

Steven T. Nourse

Yazen Alami

AMERICAN ELECTRIC POWER CORPORATION

1 Riverside Plaza, 29<sup>th</sup> Floor

Columbus, Ohio 43215

Telephone: 614-716-1915

Fax: 614-716-2950

[mjsatterwhite@aep.com](mailto:mjsatterwhite@aep.com)

[stnourse@aep.com](mailto:stnourse@aep.com)

[yalami@aep.com](mailto:yalami@aep.com)

**Counsel for Ohio Power Company**

## CERTIFICATE OF SERVICE

I hereby certify that a copy of this Memorandum Contra Application for Rehearing was served on persons stated below via electronic transmission, this 8<sup>th</sup> day of July 2013.

//ss//Matthew J. Satterwhite

Matthew J. Satterwhite

Werner L. Margard Attorney General's Office Public Utilities Commission of Ohio 180 East Broad Street, 6 <sup>th</sup> Floor Columbus, OH 43215 <a href="mailto:Werner.margard@puc.state.oh.us">Werner.margard@puc.state.oh.us</a>	Joseph Serio Office of Ohio Consumers' Counsel 10 West Broad Street, Suite 1800 Columbus, OH 43215-3485 <a href="mailto:serio@occ.state.oh.us">serio@occ.state.oh.us</a>
Richard Sites Ohio Hospital Association 155 East Broad Street Columbus, OH 43215-3620 <a href="mailto:ricks@ahonet.org">ricks@ahonet.org</a>	J. Thomas Siwo Matthew W. Warnock Thomas J. O'Brien Bricker & Eckler LLP 100 South Third Street Columbus, OH 43215-4291 <a href="mailto:tsiwo@bricker.com">tsiwo@bricker.com</a> <a href="mailto:mwarnock@bricker.com">mwarnock@bricker.com</a> <a href="mailto:tobrien@bricker.com">tobrien@bricker.com</a>
Mark S. Yurick Zachary D. Kravitz Tast, Stettinius & Hollister, LLP 65 E. State Street, Suite 1000 Columbus, OH 43215 <a href="mailto:myurick@taftlaw.com">myurick@taftlaw.com</a> <a href="mailto:zkravitz@taftlaw.com">zkravitz@taftlaw.com</a>	Honorable Attorney Examiners Sarah Parrot Jonathan Tauber <a href="mailto:Sarah.parrot@puc.state.oh.us">Sarah.parrot@puc.state.oh.us</a> <a href="mailto:Jonathan.tauber@puc.state.oh.us">Jonathan.tauber@puc.state.oh.us</a>

# **ATTACHMENT**

**Testimony of Thomas Kirkpatrick**

**-filed March 30, 2012 in 11-346-EL-SSO et al.**

BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO

In the Matter of the Application of	)	
Columbus Southern Power Company and	)	
Ohio Power Company for Authority to	)	Case No. 11-346-EL-SSO
Establish a Standard Service Offer	)	Case No. 11-348-EL-SSO
Pursuant to §4928.143, Ohio Rev. Code,	)	
in the Form of an Electric Security Plan.	)	

In the Matter of the Application of	)	
Columbus Southern Power Company and	)	Case No. 11-349-EL-AAM
Ohio Power Company for Approval of	)	Case No. 11-350-EL-AAM
Certain Accounting Authority	)	

DIRECT TESTIMONY OF  
  
THOMAS L. KIRKPATRICK  
  
IN SUPPORT OF AEP OHIO'S  
  
MODIFIED ELECTRIC SECURITY PLAN

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THOMAS L. KIRKPATRICK

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BEFORE  
THE PUBLIC UTILITIES COMMISSION OF OHIO  
DIRECT TESTIMONY OF  
THOMAS L. KIRKPATRICK  
ON BEHALF OF  
OHIO POWER COMPANY

1    **PERSONAL DATA**

2    **Q.     WHAT IS YOUR NAME AND BUSINESS ADDRESS?**

3    A.     My name is Thomas L. Kirkpatrick. My business address is 850 Tech Center Drive,  
4           Gahanna, OH 43230.

5    **Q.     BY WHOM YOU ARE EMPLOYED AND IN WHAT CAPACITY?**

6    A.     I am employed by Ohio Power Company as Vice President of Distribution Operations  
7           for AEP Ohio (the Company).

8    **Q.     WHAT IS YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL**  
9       **EXPERIENCE?**

10   A.     I hold a Bachelor's Degree in Electrical Engineering from Gannon University with  
11           a focus on power systems. I am also a member of the Institute of Electrical and  
12           Electronics Engineers, a registered Professional Engineer in the State of Ohio, and  
13           have completed AEP's Management Development Program at The Ohio State  
14           University.

15           I began my career with AEP in 1980, where for more than 25 years, I held  
16           progressively responsible positions in a broad range of functional areas including  
17           vice president – Distribution Operations, vice president – Distribution Asset  
18           Management, and Distribution project lead in support of the merger of AEP and  
19           Central and Southwest Corporation. I have also worked outside of AEP at Patrick

1 Engineering, Inc. as Vice President – Energy Practice and at Davies Consulting,  
2 Inc. as Senior Vice President – Energy Practice. I was named to my current  
3 position in September 2010.

4 **Q. WHAT ARE YOUR RESPONSIBILITIES AS VICE PRESIDENT OF**  
5 **DISTRIBUTION OPERATIONS FOR AEP OHIO?**

6 A. I am responsible for overseeing the planning, construction, operation and  
7 maintenance of the distribution system. My duties include extension of service to  
8 new customers, the safe and reliable delivery of service to our customers and  
9 restoration of service when outages occur. My responsibilities also include all  
10 meter service related activities, including meter reading and the oversight of AEP  
11 Ohio's distribution system vegetation management program, asset management  
12 programs, reliability programs and major capacity programs.

13 **PURPOSE OF TESTIMONY**

14 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

15 A. The purpose of my testimony is to explain how AEP Ohio maintains the present  
16 distribution system, including the current vegetation management program. I  
17 propose that the Commission continue their support of the ongoing Enhanced  
18 Service Reliability Plan. I describe the current state of the AEP Ohio distribution  
19 system and the need for ongoing capital investment. Next, I will discuss some  
20 examples of the types of investments a Distribution Investment Rider (DIR) would  
21 provide. Finally, I discuss the volatility associated with major storms in Ohio and  
22 the need to establish a Storm Damage Recovery Mechanism.

23 **CURRENT DISTRIBUTION RELIABILITY PROGRAMS**



1    **Q.    PLEASE BRIEFLY DESCRIBE AEP OHIO’S SERVICE TERRITORY.**

2    A.    AEP's distribution system in Ohio includes approximately 1,500 distribution  
3        circuits and approximately 31,000 miles of primary overhead distribution lines and  
4        approximately 6,600 miles of primary underground distribution lines operated at  
5        voltages from 4.16kV to 34.5kV. Residential and most commercial customers are  
6        served at secondary voltages via approximately 470,000 overhead and underground  
7        distribution transformers. AEP also operates and maintains approximately 530  
8        distribution substations.

9    **Q.    HOW DOES AEP OHIO MAINTAIN AND IMPROVE RELIABILITY ON**  
10   **ITS DISTRIBUTION SYSTEM CURRENTLY?**

11   A.    AEP Ohio uses various combinations of programs to maintain and improve its  
12        distribution infrastructure. These programs are designed to minimize the impact of  
13        service interruptions to customers and can be divided into four major categories:

- 14            • Distribution Asset Management Programs;
- 15            • Distribution Capacity Additions;
- 16            • Distribution Vegetation Management Program; and
- 17            • gridSMART<sup>®</sup> Program.

18   **Q.    PLEASE BRIEFLY DESCRIBE AEP OHIO’S CURRENT DISTRIBUTION**  
19   **ASSET MANAGEMENT PROGRAMS.**

20   A.    The distribution asset management programs are designed to optimize expenditures  
21        and system performance. AEP Ohio executes a variety of ongoing Distribution

1       Asset Management Programs. For example, some of these programs and their roles  
2       with respect to distribution system reliability are as follows:

- 3       • *Overhead Circuit Facilities Inspection and Maintenance Program:* Under this  
4       asset program, AEP Ohio visually inspects its overhead facilities to identify and  
5       correct conductor, hardware and equipment deficiencies and other potential  
6       problems before they cause service interruptions.
- 7       • *Pole Inspection and Maintenance Program:* The objective of this asset program  
8       is to maintain and prolong the structural integrity of AEP Ohio's wood poles. In  
9       order to maintain and extend where possible the useful life of these assets, AEP  
10      Ohio conducts a pole inspection and maintenance program designed to inspect,  
11      treat, reinforce and/or replace wood poles on a continual basis.
- 12     • *Pad-Mount Equipment Program:* The objective of this program is to visually  
13     inspect and perform any corrections required on the external, above-ground  
14     portions of underground distribution facilities (pad-mount transformers,  
15     pedestals, switchgear, etc.) on an ongoing basis.
- 16     • *Recloser Maintenance / Replacement Program:* The objective of this program is  
17     to inspect and test in-service recloser units for reliable operation and to maintain  
18     or replace, as needed, those units that are not operating properly or require  
19     maintenance.
- 20     • *Line Capacitor Program:* AEP Ohio has distribution line capacitor banks in  
21     service within the Company's service territory. AEP Ohio conducts an annual  
22     check of capacitor banks in service to ensure reliable and accurate operations.
- 23     • *Network System Program:* The objective of this program is to ensure reliable  
24     service to our network system customers through preventive maintenance,  
25     inspections and reactive maintenance of our urban underground networks and  
26     through capital replacement of equipment as necessary.
- 27     • *Underground Cable Program:* The objective of this program is to address  
28     underground cable deficiencies by restoring the integrity of the cable through  
29     either cable injection or cable replacement. This initiative targets high capacity  
30     underground cables in our distribution substations and circuits as well as  
31     underground residential cables such as those that serve residential subdivisions,  
32     thereby minimizing the likelihood of future service interruptions to our  
33     customers.
- 34     • *Cutout and Surge Arrestor Program:* This program targets replacement of  
35     known deficiencies present in selected aged, cutouts and surge arrestors on the  
36     distribution system.

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**Q. WHAT IS THE PURPOSE AND NEED OF THE SECOND PROGRAM CATEGORY OF DISTRIBUTION CAPACITY ADDITIONS?**

A. Capacity additions represent new capital invested to meet the needs of growth due to expansion and increased load. AEP Ohio routinely completes capital investments to serve new load and prevent overloading of existing equipment.

**Q. PLEASE DESCRIBE AEP OHIO'S THIRD MAJOR CATEGORY OF PROGRAMS CURRENTLY, THE DISTRIBUTION VEGETATION MANAGEMENT PROGRAM.**

A. AEP Ohio has approximately 31,000 miles of primary voltage overhead distribution lines that require varying levels of vegetation management. The Company's vegetation management program is a comprehensive, integrated program that employs a variety of practices such as mechanized trimming including aerial sawing; manual trimming including roping and hand climbing; brush mowing; and herbicide applications. These practices are conducted in accordance with standards established by the American National Standards Institute (ANSI), the Occupational Safety and Health Administration (OSHA), the International Society of Arboriculture (ISA) and the National Electrical Safety Code (NESC), as they relate to, among other things, the pruning and removal of trees (arboriculture), safety and worker protection, work clearances and training requirements, and safety clearance guidelines.

Previously, AEP Ohio's vegetation management program was a mix between a performance-based approach, which prioritized work on AEP Ohio's

1 facilities after taking into consideration a number of input variables, and a cycle-  
2 based approach, which maintains every distribution circuit on a four-year cycle.  
3 Since the Commission approved movement to a cycle-based approach for AEP  
4 Ohio's distribution system in Case No. 08-917-EL-UNC and Case No. 08-918-EL-  
5 UNC, AEP Ohio has been migrating from a performance-based approach to a  
6 cycle-based approach under the Enhanced Service Reliability Rider (ESRR).  
7 Converting to a cycle-based approach, as previously approved by the Commission,  
8 was based on a five-year implementation program to convert all distribution  
9 circuits to a cycle-based four-year maintenance cycle. The ESP provided additional  
10 funding over base levels for the first three years of the five year transition to the  
11 cycle-based program. The cycle-based approach has been shown to be more  
12 effective in reducing the frequency and duration of circuit outages, as was  
13 previously discussed in Case No. 08-917-EL-UNC and Case No. 08-918-EL-UNC.

14 **Q. HAS AEP OHIO EXPERIENCED ANY BENEFITS BY INCREASING ITS**  
15 **SPENDING ON VEGETATION MANAGEMENT?**

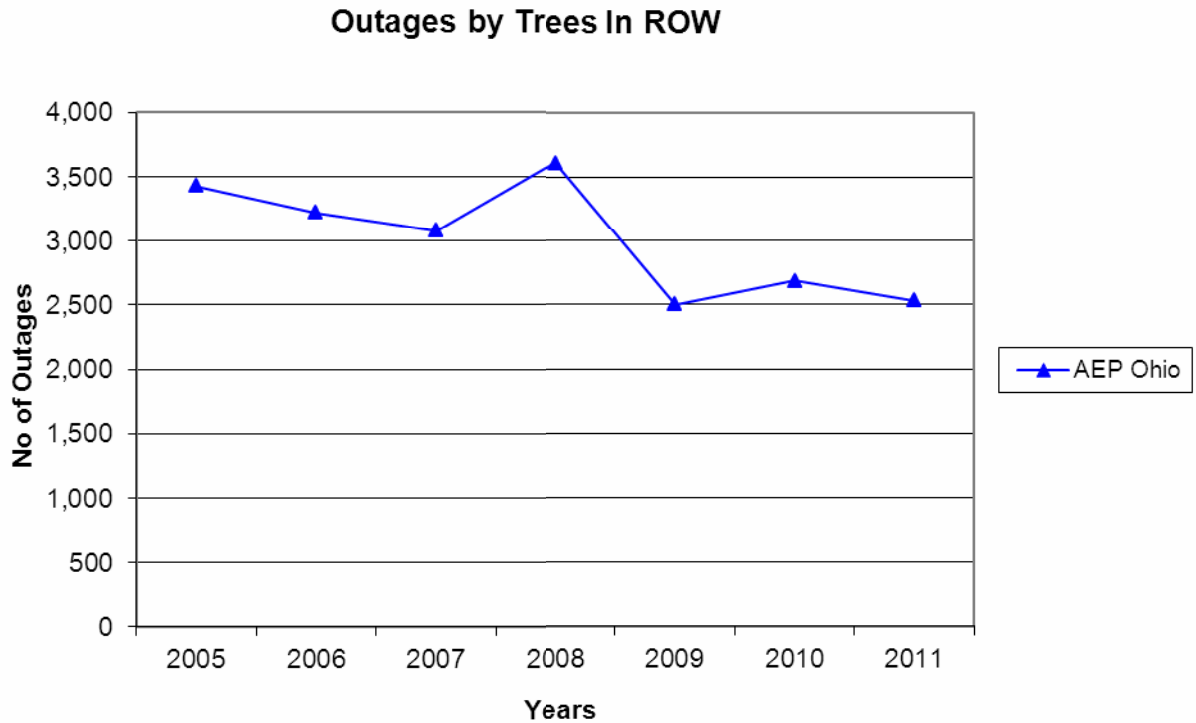
16 A. Yes. Increased spending since initiation of the ESRR in the 2008-2009 time period  
17 has led to reductions in tree-caused outages, resulting in improved reliability to the  
18 customer. Referring to Chart 1, AEP Ohio was experiencing a gradual increase in  
19 the number of tree-related circuit outages<sup>1</sup> from 2005 – 2008. After initiation of the  
20 ESRR, there was a sharp decline in the number of outages caused by trees located  
21 in the rights-of-way, and this reduction has generally been maintained despite the  
22 potential impacts of a challenging year with respect to weather in 2011.

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<sup>1</sup> Based on IEEE-1366 definitions for Major Storms.

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Chart 1



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3 In order to continually manage vegetation growth on the distribution system,  
 4 AEP Ohio proposes to complete the Commission-approved Enhanced Service  
 5 Reliability Plan, designed to transition from a performance-based program to a four  
 6 year cycle-based trimming program for all of the Company's distribution circuits.  
 7 The Enhanced Vegetation Program will capture continued improvement in  
 8 reliability due to reduced tree-related interruptions.

9 **Q. IS AEP OHIO REQUESTING THE ENHANCED SERVICE RELIABILITY**  
 10 **PLAN BE CONTINUED IN THIS ESP FILING?**

11 A. Yes. The Enhanced Service Reliability Plan as originally proposed by AEP Ohio  
 12 and subsequently approved by the Commission was designed to be implemented

1 over a five-year period. The previous ESP approved funding for the 2009-2011  
2 period. Due to the delay in resolving the current ESP case and an increase in the  
3 expected costs to complete the implementation of the cycle-based trimming  
4 program compared to the initial estimate developed over five years ago, it is now  
5 necessary to extend the implementation period into a sixth year (2014). Funding  
6 for the completion of the implementation period (2012-2014), as shown in Chart 2,  
7 is required to complete the conversion from a performance-based approach to a  
8 cycle-based approach.

9 **Chart 2**

<b>AEP Ohio - Enhanced Service Reliability Plan</b>							
	<b>Case Nos. 08-917 &amp; 08-918</b>			<b>Case Nos. 11-346 &amp; 11-348</b>			
<b>Period</b>	<b>2009</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
<b>O&amp;M</b>	\$26M	\$28M	\$30M	\$30M	\$34M	\$34M	\$182M
<b>Capital</b>	\$5 M	\$7M	\$8M	\$5M	\$5M	\$5M	\$35M

10

11 The dollars in Chart 2 reflect incremental funding above the base. The base  
12 O&M, as established in Case Nos. 08-917-EL-SSO and 08-918-EL-SSO, is  
13 approximately \$20.6 million and the base capital is approximately \$3.6 million on  
14 an annual basis. The incremental funding projected for 2014 includes funding for  
15 both the completion of the implementation period (\$16 million), as well as the  
16 annual incremental amount over the base amount required to maintain the cycle  
17 program (\$18 million) for those circuits already on the cycle-based program.

18

19

1   **Q.    ONCE THE IMPLEMENTATION PERIOD IS COMPLETE, WILL**  
2       **ADDITIONAL FUNDS ABOVE CURRENT BASE SPENDING LEVELS BE**  
3       **REQUIRED TO MAINTAIN THE CYCLE-BASED VEGETATION**  
4       **MANAGEMENT PROGRAM?**

5    A.   Even though the conversion to a four year cycle-based vegetation management  
6       program is expected to be completed in 2014, an incremental amount above the  
7       current base level of O&M will be required to maintain the program going forward.  
8       As discussed above, an incremental \$18 million will be required on an ongoing  
9       annual basis to maintain the cycle program in future years, subject to any  
10      adjustments proposed in annual compliance filings.

11   **Q.    FINALLY, PLEASE DESCRIBE THE CURRENT PROGRESS OF THE**  
12       **FOURTH CATEGORY, WHICH IS THE gridSMART® PROGRAM.**

13   A.   The gridSMART® – Phase 1 project was designed to explore the gridSMART®  
14       technologies, develop the communication interfaces, and fine tune the details of the  
15       processes for operating the gridSMART® system. AEP Ohio believes that the  
16       experience gained to date during Phase 1 installations has prepared us for a more  
17       efficient and effective implementation to our broader customer base and service  
18       territory throughout Ohio. For the remainder of the gridSMART® - Phase 1 period  
19       through the end of 2013, AEP Ohio will complete implementation of all the  
20       initiatives, as well as complete the 24 months of data collection and acquisition  
21       required by the Department of Energy as part of their funding program.

22               The Company proposes to maintain the existing gridSMART® rider for the  
23       recovery of the cost of assets already installed or planned to be installed as part of

1 the completion of the gridSMART® - Phase 1 project. The rider is proposed to be  
2 continued through the completion of Phase 1, which is expected to be completed by  
3 December 31, 2013. Upon completion of gridSMART® - Phase 1, the rider assets  
4 could be included in rate base in a future distribution rate case or other regulatory  
5 filing. Please see Company witness Roush for explanation of the existing  
6 gridSMART® rider recovery mechanism.

7 **Q. WHAT ARE THE FUTURE EXPECTATIONS FOR THE gridSMART®**  
8 **PROGRAM?**

9 A. AEP Ohio is encouraged by the results observed to date by the Phase 1 project and  
10 will be working with Staff and others to develop a long-term strategy for additional  
11 gridSMART® deployment where benefits to customers, such as improved reliability  
12 and improved customer awareness of energy usage, justify the expense. Going  
13 forward, it is the intent of AEP Ohio to expand elements of a gridSMART®  
14 program throughout the AEP Ohio service territory as part of normal business  
15 through the DIR and in concert with Staff.

16 **Q. DOES THE CURRENTLY PROPOSED DIR INCLUDE FUNDING FOR A**  
17 **SYSTEM-WIDE DEPLOYMENT OF SMART METERS?**

18 A. No, it does not. If in the future, AEP Ohio, in conjunction with the Commission  
19 and the Staff, proposes to implement a system-wide deployment of smart meters,  
20 AEP Ohio would submit an updated plan, which would include a plan for full cost  
21 recovery of all associated costs.

22 It is also expected that a full system-wide deployment of smart meters  
23 would require the early retirement of the current meters. Because of the expected



1 volume of meters to be displaced by smart meters, it is proposed that the remaining  
2 net book value (NBV) of the retired meters be set up as a regulatory asset and  
3 recovered in a future filing. In the current gridSMART® - Phase 1 program, the  
4 volume of retired meters is relatively small, and the lost value of the retired meters  
5 is recovered in the over/under accounting process approved for the non-FAC riders  
6 in the 2009 – 2011 ESP. Company witness Mitchell discusses the accounting  
7 proposal in more detail.

8 **PROPOSED DIR**

9 **Q. PLEASE EXPLAIN THE PURPOSE OF THE AEP OHIO DIR.**

10 A. The purpose of the AEP Ohio DIR is to provide capital funding for distribution  
11 assets detailed in the FERC Chart of Accounts, including, but not limited to:

- 12 • Support the distribution asset management programs described in this  
13 testimony to maintain and improve the reliability of the distribution  
14 system by dedicating sufficient resources;
- 15 • Enable customers' and the distribution utility's expectations to be  
16 aligned;
- 17 • Provide for distribution capacity and infrastructure additions driven by  
18 customer demand; and
- 19 • Support the continued implementation of advanced technology and  
20 gridSMART® program elements that have been successfully  
21 demonstrated in the current demonstration project.

1 **Q. WHY IS ADDITIONAL CAPITAL INVESTMENT REQUIRED TO**  
2 **SUPPORT DISTRIBUTION RELIABILITY?**

3 A. The failure of aging infrastructure continues to be the primary cause of customer  
4 outages and reliability issues. This funding would allow AEP Ohio to move from a  
5 reactive response for equipment failures to a more proactive replacement strategy  
6 that identifies, replaces and/or refurbishes assets with a high likelihood of failure.  
7 AEP Ohio will continue to require capital investment to respond reactively to  
8 failing equipment; however, it is prudent for AEP Ohio to take a more proactive  
9 approach to asset replacement as it is increasingly difficult to sustain and provide  
10 the level of reliability that our customers expect. Additionally, certain components  
11 of the aging distribution infrastructure do not support the advanced technologies of  
12 gridSMART®. Expansion of gridSMART® can be utilized to reduce customer  
13 outage duration. While the Phase 1 demonstration project is not yet complete,  
14 preliminary benefits from the implementation have been evaluated. Working with  
15 Staff, these benefits will form the basis for development of the continuing  
16 implementation of gridSMART®.

17 Company witness Powers explains the need for ongoing capital investment  
18 to sustain critical investments that benefit customers by maintaining and improving  
19 service reliability. As I explained above, the need for capital investment on a  
20 system as large as that of AEP Ohio is continuous as assets reach the end of their  
21 expected lives. Additionally, significant numbers of assets installed during periods  
22 of rapid expansion of the electric infrastructure, such as during the 1950's and the  
23 1970's, are now reaching the end of their expected lives, which will require an

1 increase in capital investment to replace. AEP Ohio's existing capital budget  
2 already forecasts an annual investment in excess of \$150 million in its distribution  
3 assets as part of its normal business for the foreseeable future. The DIR would  
4 provide a method to enable the continued investment in the distribution system,  
5 fund additional needed investment on an ongoing basis, and minimize the  
6 regulatory lag associated with the traditional recovery methods of this important  
7 investment that benefits customers. Company witness Allen provides additional  
8 detail on how the DIR will function.

9 **Q. HOW WILL AEP OHIO CHOOSE ASSETS FOR DISTRIBUTION**  
10 **INVESTMENT?**

11 A. AEP Ohio will perform analyses of historical performance of AEP Ohio assets over  
12 time to predict future asset performance as well as compare historical performance  
13 against Commission-established reliability standards. AEP Ohio is also in  
14 communication with Commission Staff throughout the year both through formal  
15 rule submissions and informal discussions concerning the reliability of the system  
16 and the Company's aging assets. In fact, the Commission Staff continuously  
17 monitors each electric utility's distribution system reliability through service  
18 complaints, electric outage reports, and compliance with the provisions of the  
19 administrative rules found in Chapter 4901:1-10. The input provided by  
20 Commission Staff and the type of analyses planned by the Company will provide an  
21 indication of expected asset performance in the future so that targeted investment  
22 strategies can be developed proactively. Currently, AEP Ohio is evaluating several  
23 asset categories, with the focus on identifying specific assets with a high

1 probability of failure. While life cycle analysis provides guidance on when the  
2 probability for failure may occur, AEP Ohio will also use field diagnostics to  
3 determine whether specific assets should remain in service past their predicted life.  
4 These inspection programs include pole inspections, underground cable  
5 diagnostics, and detection of deterioration through Infra-red (IR) testing and  
6 measurement of electro-magnetic interference (EMI). Charts 3 and 4 below  
7 illustrate failure rates of distribution pole and transformer assets as they age.

8 **Chart 3**

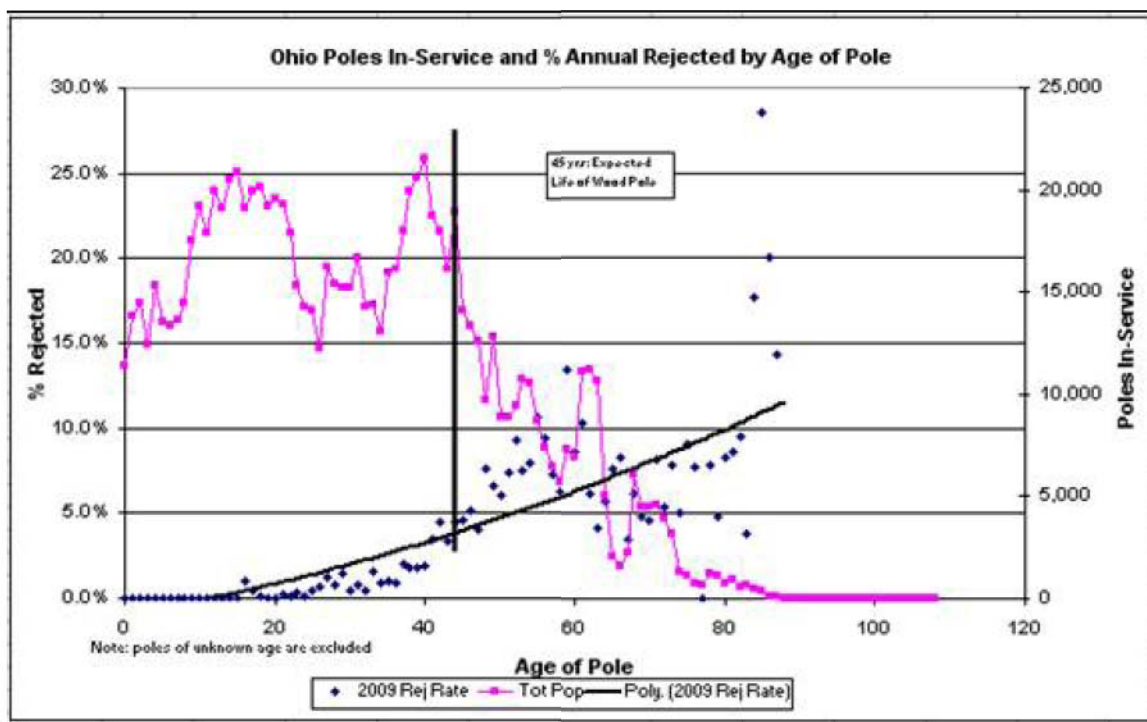
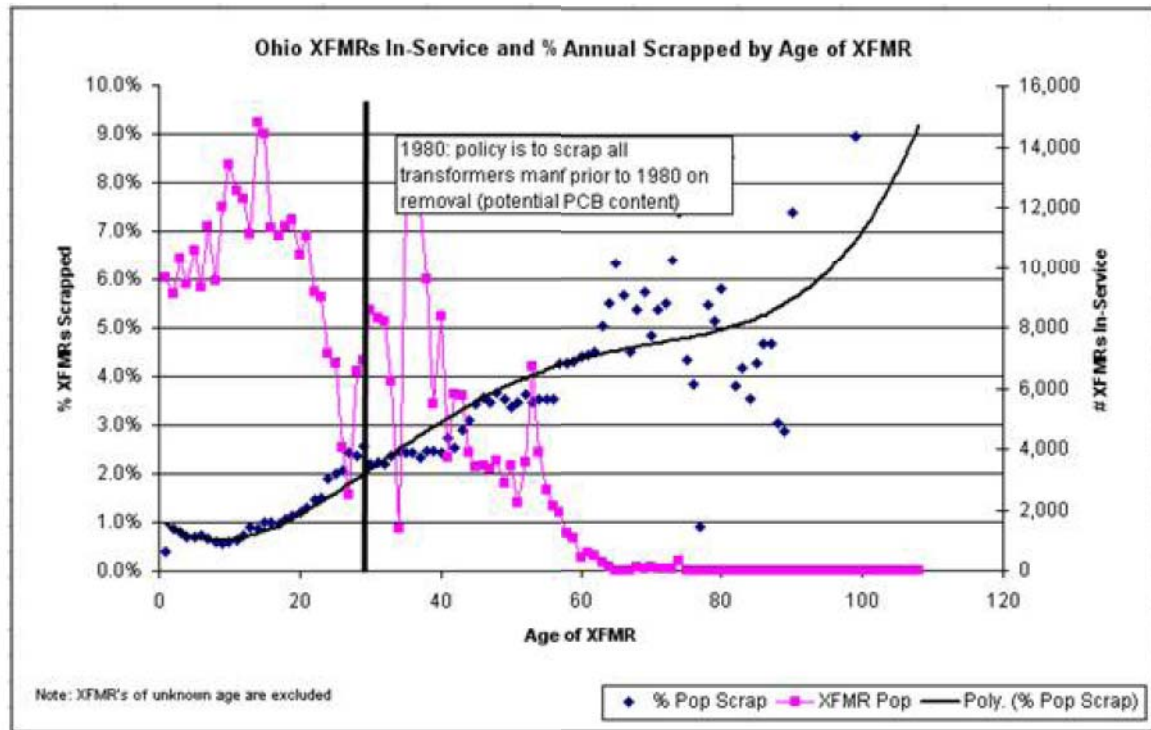


Chart 4



Life cycle analysis, such as this, provides impetus to look more deeply at these assets to determine whether proactive replacement programs are in order. While this provides guidance on when the probability for failure may occur, AEP Ohio will also use field diagnostics as discussed above to determine whether specific assets should remain in service past their predicted life. In addition, AEP will identify the impact of the performance of different types of assets utilized in the distribution system to target asset investment that will impact the largest number of customers. Examples of asset classes that impact large numbers of customers include distribution substation assets such as circuit breakers, regulators and switches, power cable systems in distribution substations and circuit exits, and underground residential cable systems that impact large customer groups. Finally,

1 the Commission reviews AEP Ohio's performance against established reliability  
2 standards, and any non-performance with respect to these standards will also serve  
3 as an impetus for AEP Ohio to target additional investment through the DIR. The  
4 failure to meet reliability standards results in discussions with Staff that  
5 subsequently result in plans to ensure future compliance with the standards.

6 **Q. CAN YOU GIVE AN EXAMPLE OF AN ASSET THAT WOULD PROVIDE**  
7 **SIGNIFICANT BENEFIT TO THE CUSTOMER IF IT WAS INCLUDED IN**  
8 **THE DIR?**

9 A. Yes. Distribution substation circuit breakers that control the flow of electricity to  
10 each of the AEP distribution circuits are critical assets. Failures of these devices  
11 could result in long duration outages for entire feeders and in many cases may  
12 extend outages unnecessarily to other components of the substation. For example,  
13 there are almost 400 distribution circuit breakers in AEP Ohio over 40 years old.  
14 Many of these circuit breakers no longer have spare parts to facilitate maintenance  
15 and repair. By proactively replacing the assets prior to forecasted failure instead of  
16 waiting for these assets to fail, overall reliability of this asset type would improve  
17 as failures and subsequent customer interruptions can be avoided before they  
18 happen. Additionally, preventing outages that may be long in duration, such as  
19 these related to distribution substation circuit breakers, will also help performance  
20 with respect to established reliability standards.

21

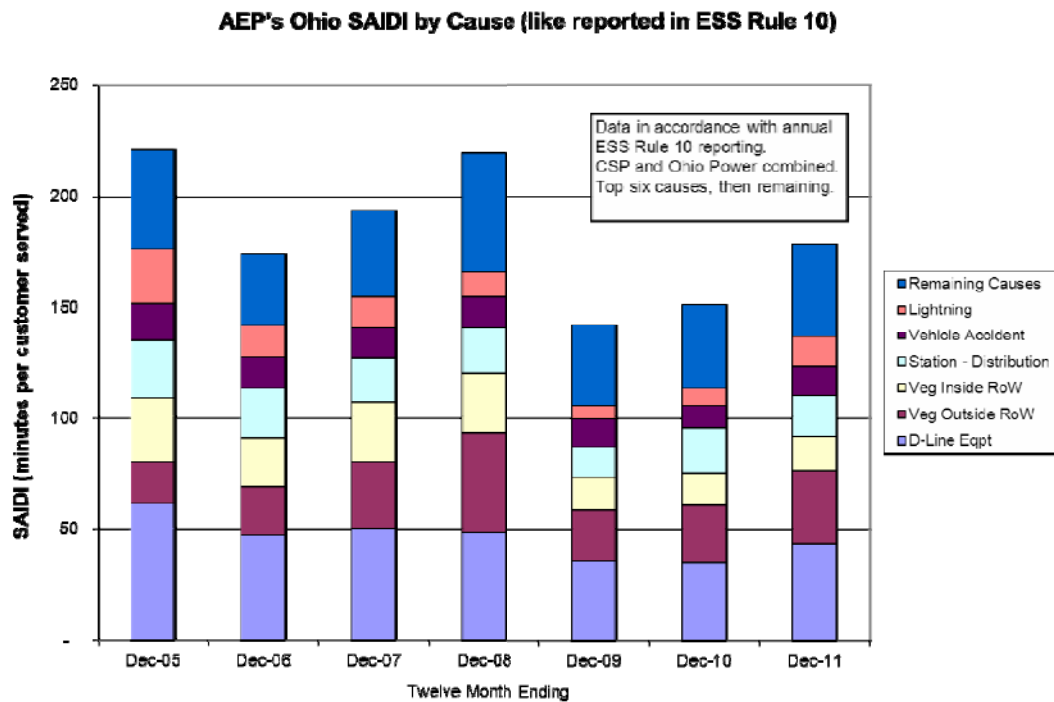
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23

**Q. WHAT IS THE CURRENT STATE OF THE ASSETS ON THE AEP OHIO DISTRIBUTION SYSTEM?**

A. The AEP Ohio distribution system is comprised of assets ranging from new to equipment installed more than fifty years ago. Distribution substation and distribution line assets comprise the second highest cause of failure on the distribution system after tree related outages as seen in Chart 5 below.

### Chart 5



Continuance of the ESSR will help address tree-related outages. Additional investment in the distribution assets through the DIR is needed to positively impact the equipment failure related causes of customer outages.

1   **Q.    HOW DOES AEP OHIO ALLOCATE ITS DISTRIBUTION CAPITAL**  
2   **INVESTMENT?**

3   A.    AEP Ohio allocates its capital investment on an annual basis given the current  
4   needs of the distribution system. Following standard industry practice, a hierarchy  
5   of priorities is used to rank the multitude of system needs against the available  
6   funding. Customer service projects to accommodate new and existing customer  
7   requests are typically given the highest priority. Capacity planning projects  
8   required to ensure compliance with Ohio rules and statutes is also given a high  
9   priority. Capital projects performed in a reactive or responsive manner to  
10   equipment failure, emergency, or other service interruption are also given a high  
11   priority. Finally, capital projects in support of reliability needs are designed to  
12   implement solutions to reliability concerns prior to customer impacts. These final  
13   types of capital projects are typically driven by an inspection and evaluation  
14   program or an observation of performance trends in similar assets that identifies  
15   assets in danger of failure. This last category of project would be the primary focus  
16   of the incremental investment made through the DIR.

17   **Q.    WHY DOES AEP OHIO NEED A RIDER FOR DISTRIBUTION**  
18   **INVESTMENT VERSUS ONGOING REPLACEMENT THROUGH**  
19   **NORMAL PROCESSES?**

20   A.    The asset management and reinvestment programs described earlier are designed to  
21   address aging and deteriorating infrastructure, however are not funded at the level  
22   needed to sustain or improve the failure trends. As illustrated in Charts 3 and 4  
23   failure rates will continue to rise as assets age, outpacing AEP Ohio's ability to



1 keep up with replacements with current funding levels. Significant investment for  
2 infrastructure is needed to fund reliability programs and technology upgrades to  
3 address customer expectations. Funding this incremental investment as a rider  
4 reduces regulatory lag. The presence of a DIR mechanism will provide more  
5 certainty for electric customers that they will receive the safe and reliable service  
6 they expect through the increased investment in the system.

7 **Q. HOW DOES AEP OHIO KNOW THAT ITS RELIABILITY**  
8 **EXPECTATIONS ARE ALIGNED WITH ITS CUSTOMERS?**

9 A. AEP Ohio understands that electric service will not be perfect, but that does not  
10 prevent the Company from expecting quality service for its customers. As  
11 indicated by Company witness Powers, AEP Ohio starts with the assumption that  
12 its customers also expect safe and reliable service. To help determine what that  
13 means to customers, AEP Ohio administers customer. Customer survey results for  
14 2011 show that a large percentage of customers are satisfied with their level of  
15 service and have an expectation that their service needs will remain the same in the  
16 future. Specifically, 71% of residential respondents and 73% of commercial  
17 respondents indicated their service reliability expectations would stay the same  
18 over the next 5 years. Another 19% of residential respondents and 20% of  
19 commercial respondents believe their future reliability expectations will increase  
20 over the next five years. Together that means that AEP Ohio is working to address  
21 its aging infrastructure to ensure that the 90% of residential respondents and 93%  
22 of commercial respondents see their service maintained or improved in the next 5  
23 years.

1    **OTHER INITIATIVES**

2    **Q.    PLEASE DESCRIBE AEP OHIO’S REQUEST OF MAJOR EVENT**  
3       **DAMAGE RESTORATION O&M EXPENSE.**

4    A.   Major events are classified as a period of time when the electric delivery system is  
5       faced with challenges beyond its normal design criteria. Major storms are  
6       determined based on the methodology outlined in IEEE Standard 1366 - 2003,  
7       IEEE Guide for Electric Power Distribution Reliability Indices, as adopted by the  
8       Ohio Commission in the standards established in O.A.C 4901:1-10-10(B).

9    **Q.    WHY IS AEP OHIO PROPOSING A STORM DAMAGE RECOVERY**  
10       **MECHANISM?**

11   A.   Given the volatility of major storms and major storm damage restoration O&M  
12       expenses from year to year, AEP Ohio is proposing that a Storm Damage Recovery  
13       Mechanism be created in the amount of \$5.0 million per the approved settlement in  
14       the 2011 AEP Ohio distribution rate case (Case Nos. 11-351-EL-AIR and 11-352-  
15       EL-AIR) beginning with calendar year 2012 to recover only the incremental  
16       expenses incurred as a result of major storm events. This mechanism is necessary  
17       to preserve forecasted O&M for planned maintenance activities. If funds are  
18       constantly diverted to cover the expense of major storms, it disrupts the completion  
19       of planned maintenance and ultimately has an impact on the reliability of the  
20       system. This mechanism is further discussed by Company witnesses Mitchell.

1   **Q.     WOULD THE STORM DAMAGE RECOVERY MECHANISM INCLUDE**  
2       **CAPITAL COSTS INCURRED AS A RESULT OF A MAJOR STORM?**

3   A.    No. Capital costs would become a component of the DIR or would be included in  
4       rate base in the next distribution rate case.

5   **Q.     DOES THE LEVEL OF SPEND ON VEGETATION MANAGEMENT**  
6       **IMPACT THE DAMAGE CAUSED BY MAJOR STORMS?**

7   A.    In my experience in the industry, I do not believe that vegetation management  
8       practices have a significant impact on damage caused by major storms. Although  
9       increased vegetation management activity may reduce the impact of minor storms,  
10      the damage caused by major storms is typically unaffected by vegetation that would  
11      be controlled through a vegetation management program. Much of the damage  
12      caused by vegetation during a major storm is caused by vegetation from outside the  
13      right-of-way that would have not been part of the vegetation management program.  
14      Therefore, I do not expect the impact from major storms to be reduced as we  
15      continue to make progress on our vegetation management program.

16   **SUMMARY**

17   **Q.     PLEASE SUMMARIZE YOUR TESTIMONY.**

18   A.    In my testimony, I discussed how AEP Ohio maintains the present distribution  
19       system, including vegetation management. I then proposed the continuation of the  
20       current ESSR to complete the Commission approved transition of the vegetation  
21       management program to a four-year cycle-based program. I then described the DIR  
22       and how it would provide a mechanism to continue to invest in a reliable  
23       distribution system. Both the continuation of the ESRR and the implementation of

1           the DIR will result in benefits to customers equal to or greater than the costs to  
2           customers. Finally, I discussed the volatility associated with major storms in Ohio  
3           and the need to establish a Storm Damage Recovery Mechanism.

4   **Q.   DOES THAT CONCLUDE YOUR DIRECT TESTIMONY?**

5   A.   Yes, it does.

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