

Energy

In addition to traditional fuels such as coal and natural gas, we also see transmission, smart grid and energy efficiency as vital parts of our resource mix.

Learn More

AEP's CEO on Sustainability



Play Video

Economy

We are advocating for federal resources to assist in retooling local economies as we also explore ways to reuse retired coal plants or plant sites.

Learn More

The Value of Electricity



Play Video

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Environment

Compliance is the foundation of our environmental efforts. We also set voluntary targets. Overall, our performance is very good.

Learn More

AEP Overview



Play Video

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Reports

This is AEP's fourth integrated report combining the Annual Report to Shareholders with the Corporate Sustainability Report. This is our seventh year of reporting our sustainability performance. This website — www.AEPsustainability.com — includes significant data and information about AEP's performance. This report is based largely on calendar year 2012 with exceptions for early 2013 data as noted. For more information about AEP, visit www.AEP.com.

GRI - Global Reporting Initiative

This report was developed according to the <u>Global Reporting Initiative</u> (GRI) Sustainability Reporting Guidelines Version 3.1 (G3). The GRI guidelines provide a voluntary reporting framework used by organizations around the world as the basis for sustainability reporting. We are using the G3.1 standards, as well as the Electric Utility Sector Supplement for reporting on industry-specific information. AEP self-declares an Application Level A for its 2013 report, which reflects a high level of transparency in our reporting.

• AEP 2013 Corporate Accountability Report - GRI Report (PDF)

Audit Review of This Report

AEP Audit Services performed a limited review of company performance statements contained within the Business Performance Section of the 2013 AEP Corporate Accountability Report. Financial information was reconciled with AEP's audited financial statements, if applicable, or to such other sources as deemed appropriate. Processes used in accumulating the significant nonfinancial data were reviewed and the data reconciled to the sources(s). The appropriateness of the context in which data are presented was also reviewed. Finally, forward-looking information was verified as consistent with other public information disclosed by AEP. Based upon our review as of April 19, 2013, we believe the information regarding Business Performance is appropriately stated, and that the processes followed in accumulating both the financial and nonfinancial information are reasonable.

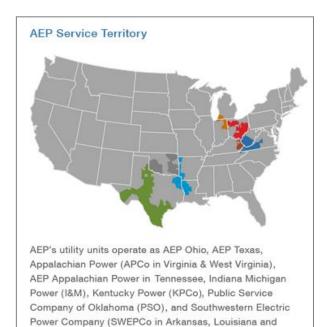
Richard A. Mueller

Vice President, Audit Services

Ristada Muller

Who We Are

AEP is based in Columbus, Ohio.



Company Overview 2012

American Electric Power has been providing electric service for more than 100 years and is one of the nation's largest electric utilities, serving 5.3 million customers in portions of 11 states.

GAAP Revenues (billions)	\$14.9
GAAP Net Income (millions)	\$1,262
GAAP Earnings Per Share	\$2.60
Cash Dividends Per Share	\$1.88
Service Territory	200,000 square miles
Transmission	40,000 miles
765-kV Lines	2,116 miles
Distribution	221,000 miles
Generating Capacity	37,600 MW ¹
Generating Stations	66 ²
Renewable Portfolio (hydro)	283 MW ³
Pumped Storage	586 MW ⁴
Renewable Portfolio (wind, solar)	1,994 MW ⁵
Total Kilowatt-hour Sales (million	ns) 213,000
Rail Cars	7,600
Barges	~3,100
Towboats	60
Harbor Boats	25
Total Assets (billions)	\$54.4
U.S. Customers (year-end, million	s) 5.3

- ¹ Does not include OVEC/IKEC or PPA's.
- ² Includes jointly owned facilities with other utilities.
- ³ Nameplate capacity, excludes pumped storage.
- ⁴ Nominal capacity.
- Wind and solar Power Purchase Agreements. Nameplate capacity.

AEP Economic Impact 2012 Employees (year-end) 18,5131 Wages \$2.2 billion 2 Construction Expenses \$3 billion 3 Local Taxes \$576.3 million State Taxes \$316.2 million Federal Taxes \$124.1 million Goods & Services (does not include fuel) \$4.8 billion \$741 million 4 Goods & Services from Diverse Suppliers \$1.6 billion 5 Remaining Value of all Contracts 60.054 thousand Coal Delivered (tons) Coal Average Purchase Price (per ton) \$49.22 Natural Gas Delivered (cubic feet) 220 billion \$3.01 Natural Gas Average Purchase Price (per MMBtu) Philanthropic Giving \$17.7 million 6 \$1.3 million 7 Economic Development Contributions

- ² Includes wages, incentives and fringe benefits (expensed and capitalized) and AEP's portion of certain payroll taxes.
- 3 Construction expenditures, not investments in subsidiary companies. Excludes discontinued operations.
- 4 Diverse suppliers are classified as Small Business, Small Disadvantaged Business, Women Owned Small Business, HUBZone Small Business, Veteran Owned Small Business, and Service Disabled Veteran Owned Small Business.
- 5 Supply chain purchased contracts and inventory system.
- ⁶ Includes Corporate and AEP Foundation grants.
- 7 Includes all grants and contributions by utility units to support economic development.

2010 Economic Impact of the Electric Power Industry in the United States

Total Direct Economic Impact \$367.8 billion Total Indirect Economic Impact \$259 million

Direct Economic Impact1

510,1672 Jobs (generation, transmission and distribution) Federal Taxes (estimated) \$19.5 billion State & Local Taxes (estimated) \$27.2 billion

Supplier Economic Impact3

374,676 Jobs Federal Taxes (estimated) \$5.8 billion State & Local Taxes (estimated) \$4.9 billion Induced Economic Impact4 Jobs 1,286,055 Federal Taxes (estimated) \$13.6 billion

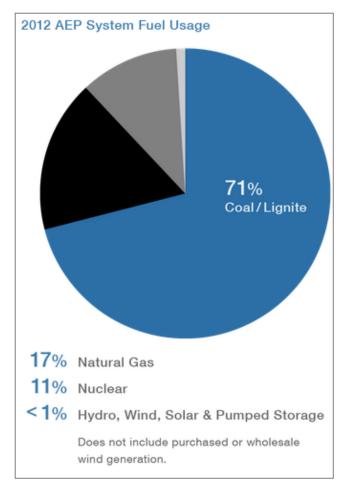
- \$10.1 billion State & Local Taxes (estimated) 1 Impact of the electric power industry given a level of
- ² Full time equivalent (FTEs) employees.

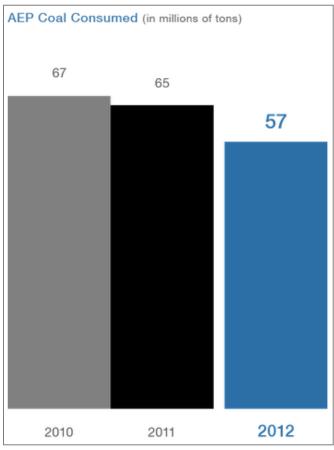
industry sales.

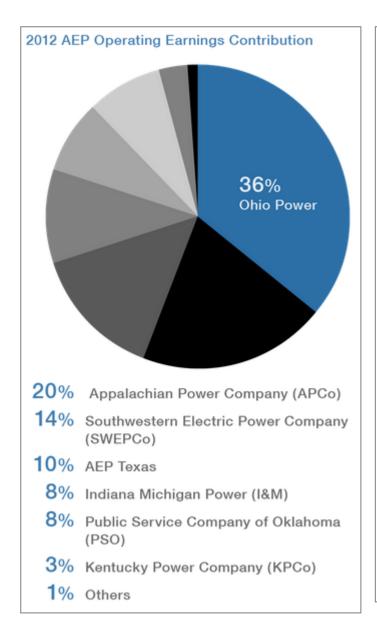
- 3 Impact of the electric power industry buying goods and services from other local industries.
- 4 Employee spending of direct and supplier impacted industries in the supply chain.

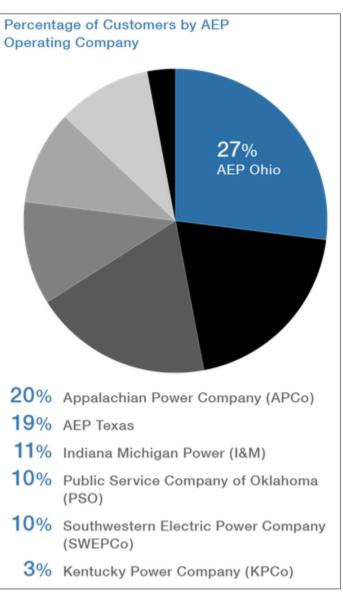
Source: Edison Electric Institute

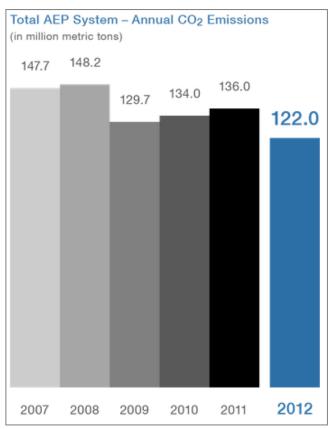
¹ Includes subsidiaries of AEP.

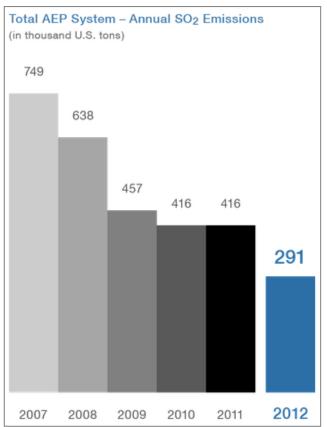


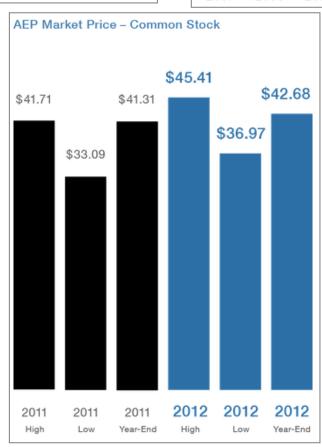








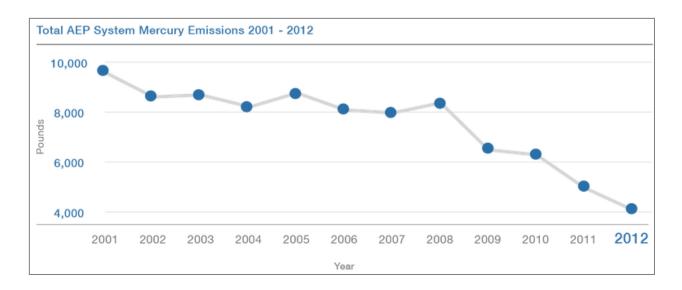


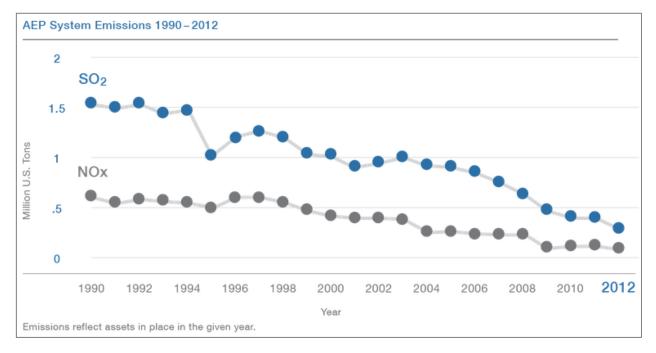


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Coal - AEP System Plants			
	2010	2011	2012
Total Delivered (thousands of tons)	64,614	62,956	60,054
Average Cost Per Ton	\$44.82	\$46.76	\$49.22

Natural Gas - AEP System Plants			
	2010	2011	2012
Total Delivered (billion cubic feet)	133.6	166.8	220.0
Average Price Per MMBtu of Purchased Natural Gas	\$4.80	\$4.48	\$3.01





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Statement of The AEP Board of Directors

The AEP Board of Directors has assigned responsibility for monitoring and overseeing the company's sustainability initiatives to the Board's Committee on Directors and Corporate Governance. This is the fourth year AEP has integrated its sustainability reporting with financial reporting. The Committee fully supports this approach. Stakeholders have expressed approval and appreciation for AEP's leadership with this integrated approach to corporate reporting.

Throughout the year, the Committee and company management reviewed the company's sustainability objectives, challenges, targets and progress. The Committee reviewed and discussed the final text of this report before recommending its approval by the full Board of Directors.

The AEP Board of Directors receives frequent reports both from management and from the Committee on Directors and Corporate Governance about the company's sustainability initiatives and from management and Board committees about the company's financial reporting and economic performance. Topics in this report have been the subject of active discussion at the Board and Committee meetings. All members of the Board reviewed the report in detail and at the conclusion of this review process the Board of Directors adopted a formal resolution approving the report.

The Board believes this document is a reasonable and transparent presentation of the company's plans and of its environmental, social and financial performance. The Board has emphasized to management that it will continue to be evaluated by its success in executing the company's strategic plan to meet stakeholders' and the Board's expectations, including being agile in responding to changing circumstances while respecting the commitments in this report.

Thomas E. Hoaglin

Thomas & Hoagl

Lead Director of the AEP Board of Directors

April 9, 2013

CEO Letter

Dear Friends,

It is my privilege to report to you on our business and to share AEP's road map for future growth. We've come through some difficult times, and we are very well positioned for the future and excited about our prospects. AEP has provided its shareholders with dividends for 411 consecutive quarters. And we are on course to continue executing our strategy: creating economic value while protecting the environment and improving the lives of those with whom we interact.

Safety is always our top sustainability priority. It was also our proudest accomplishment in 2012, when we achieved the best safety performance in AEP's history. No AEP employee or contractor lost his or her life in 2012 during the course of their work. We achieved our lowest recordable incident rate ever, and the severity of the injuries that did occur was down significantly. I speak for the Board of Directors and for all of our leaders when I say how profoundly grateful I am to the men and women of AEP who have honored the company with this accomplishment.

Our goal remains zero harm – zero fatalities, zero injuries. We have set our sights high, as we always do, and as we get better, the journey to zero gets harder. Yet with continued vigilance and determination, and an abiding commitment to look out for each other, I am confident we will continue to make progress.

I invite you to learn more about our safety performance.



The energy business is complex, exciting and in the midst of a major transformation. We provide a vital service that for more than a century has supported commerce, contributed to quality of life and strengthened our communities. And as the energy business changes, so do we. Recently, domestic production of oil and natural gas has increased, the price of natural

gas has fallen, and the cost of generating electricity from coal has gone up, a result of increasingly expensive environmental compliance requirements. At the same time, energy demand has remained stagnant because of weakness in the economy and gains in energy efficiency.

These changes have led to some positive outcomes that underpin our sustainable growth strategy, including greater fuel diversity, new jobs, grid modernization and a cleaner environment. AEP has become a more agile, innovative, adaptive and resilient company and has thus continued to create value for customers, shareholders and other stakeholders. We've also worked to strengthen our nation's energy security and its industrial competitiveness in the 11 states where we operate and in which we live.

We would all be well served by a national energy strategy and sound public policies to facilitate the generation and delivery of energy. America needs to diversify its fuel sources, invest in transmission systems, replace aging infrastructure, stimulate energy efficiency and finalize a long-term solution to the problem of spent nuclear fuel. Such national energy priorities must be achieved with due consideration of the economic consequences of each option, with all stakeholders having been given a voice in the decision-making process.

Energy can accelerate economic growth and create widespread prosperity. But it requires policy makers, regulators and industry leaders to come together to make reasonable plans with consumers, communities, and other stakeholders who are concerned about the environment, job growth, national security and other key issues. Without such plans, the nation's long-term economic health will continue to be at risk.

Sustainability has many definitions, but at its core is a vision we all share: broad prosperity, a clean and healthy environment, and vibrant communities in which our families, neighbors and children can thrive.

A Strong Performance In 2012

With a strong balance sheet, a stable base of investors, solid financial performance in 2012 and a sound strategy for the future, AEP is poised to deliver robust financial returns to its investors and to help accelerate economic growth for its customers and communities.

2012 was a year of transition but also one of progress. We have greater clarity about our future in Ohio, a sensible transmission growth strategy, regulated utilities that are delivering strong returns on our investments, and a sturdy platform from which to invest in our core businesses. That is why we are committed to achieving annual earnings growth of 4 percent to 6 percent.

In 2012, we also maintained our investment-grade credit ratings, made contributions to our qualified pension plan, and began to recover deferred costs that had been mounting in some jurisdictions for the past few years at the direction of regulators. In a decision that reflects confidence in our business plan, early in 2013 our Board of Directors increased the target payout ratio range of AEP's dividend to 60 percent to 70 percent of consolidated earnings. This brings us more in line with our regulated peers.

We took actions last year to identify sustainable cost savings opportunities and improve processes, which led to greater efficiencies. Faced with a rapidly changing operating environment, we conducted an organizational review to identify opportunities to be more agile, focus more on customer service and allow us to prudently reallocate resources to high-growth areas of our business, such as transmission. We will continue to reposition our business to accommodate the need for quality customer service and pursue growth in our regulated businesses. These are all indicators of our financial strength.

A strong, healthy organizational culture is imperative to business success. An employee culture survey last year told us that our employees are deeply committed to the company, to its customers and to the safety of one another. But it also showed us that we have areas to work on if we are to successfully implement our strategy. We held nearly 60 focus group meetings across our service territory in early 2013 to seek employees' ideas and to help us develop a culture that will support stronger leadership throughout the organization, strategic alignment across the company, employee engagement and more meaningful performance recognition.

We will work hard this year and in the years to come to ensure that employees have the skills and tools to keep pace with the dynamic changes happening in our business.



Investing In The Future

Regulated utilities constitute the largest portion of AEP's business, producing and distributing electricity to more than 5.3 million customers in 11 states. We will use this platform as a growth springboard and will invest approximately \$3.6 billion in 2013 and \$3.8 billion in 2014 and 2015,

respectively, primarily in our regulated businesses. These investments will keep the power on, serve new customers and deliver quality service to all of our customers. Our operating companies work tirelessly to maintain positive, open relationships with regulators, legislators and key stakeholders to ensure that our capital investments are needed and supported.

We are successfully pursuing a strategy to create separate transmission companies in our jurisdictions. These investments along with our transmission joint venture projects, all held within AEP Transmission Holding Company, LLC (AEPTHCo), improve service and reliability for our customers and deliver value to our shareholders. From 2010 through the end of 2015, AEPTHCo is forecasted to invest approximately \$3 billion in its business. And these investments

are having an impact. AEPTHCo contributed \$0.09 per share to earnings in 2012, 50 percent more than in 2011; this is expected to increase to an estimated \$0.36 per share in 2015.

With greater certainty about the future in Ohio, we are moving forward with the process of separating our Ohio generating assets from AEP Ohio, known as corporate separation. AEP Ohio is our largest operating company, representing 29 percent of retail revenues system-wide in 2012, and is undergoing the biggest transformation among our operating companies. Once corporate separation is complete, AEP Ohio will be a "wires only" transmission and distribution company. Through 2012, 51 percent of AEP Ohio's retail customer load had switched generation providers, some of which is now served by our own retail provider. Through our competitive retail and wholesale power marketing business and with the eventual availability of more than 8,000 MW of generation in Ohio on the market, we will be a strong contender.

To comply with new and pending environmental regulations, we expect to retire approximately 5,500 MW of generation by the end of 2016 and convert to natural gas or install or upgrade environmental control systems on nearly 11,000 MW of generating capacity. This will cost between \$4 billion and \$5 billion and is in addition to the \$7 billion we have spent since 1990 to significantly reduce air emissions from our coal plants. We understand the intent of the regulations. We also remain concerned about grid reliability due to the timing and scope of plant retirements across the United States, the need for new or replacement transmission or generation to support the grid in the absence of retired coal units, and the need to upgrade and expand the existing transmission system across the country.

Overall, the scope and timing of these projects represent large costs for our customers to bear, and they put the reliability of the bulk power system unnecessarily at risk. We continue to be vocal advocates of rational rulemaking that considers the economic impacts of new regulations along with the environmental benefits.



An agreement reached in February 2013 to modify our 2007 New Source Review consent decree will accelerate original plans to reduce sulfur dioxide emissions on our Rockport Plant in Indiana while maintaining our flexibility to choose the technology to do it. It also will require the retirement or refueling with natural gas of other coal units and the addition of 200 MW of wind energy to serve our

Indiana Michigan Power customers. This agreement, awaiting court approval, is a win for our customers and for the environment because of the flexibility it affords and the reduced environmental impacts that will result.

As national discussions about climate change continue, we are engaged in the United States and internationally. Climate change is a significant sustainability concern that carries with it operational and financial risk. Our position that this issue must be addressed globally has not changed and we continue to work toward our goal to reduce our carbon emissions by 10 percent from 2010 levels by 2020. The retirement of coal-fired units will support these reductions, as will the increased diversity of our fuel mix.

You can learn more about AEP's climate policy position and strategy here.

Resiliency and Reliability

We face increasing challenges to the resiliency of the electric grid. The recent severity and frequency of storms has been a blow to our industry and the infrastructure that produces and delivers electricity. During AEP's 107-year history, 2012 will be remembered as a year when our system sustained unprecedented physical damage from weather events. Tornadoes, an unexpected hurricane-like wind storm (known as a "derecho") and Super Storm Sandy crumpled thousands of transmission towers and distribution poles, snapped thousands of miles of wire and damaged or destroyed other equipment, leaving millions of customers in the dark and causing hundreds of millions of dollars in damage. I am proud of what our employees accomplished to restore customers safely and as quickly as possible in our service territory and across the country. The magnitude of these events is driving an industry-wide research project to improve the resiliency of the grid.

Resource Diversity

We believe in a balanced resource portfolio to supply our customers' needs, to mitigate risk and to provide for a secure energy supply in the future. Coal will continue to be a key part of the fuel mix, as will natural gas, renewable energy, nuclear, hydro and energy efficiency. Rounding out this resource mix are transmission and smart grid. This combination of resources gives us the balance and flexibility we need for the future. We have already taken steps to diversify the fuels we use to generate electricity and will continue to do so.

We brought new natural gas and coal plants on line in 2012. In early 2012, the 580-MW, combined-cycle natural gas-fired Dresden Plant in Ohio began commercial operation. And in December 2012, the 600-MW <u>John W. Turk, Jr.</u>, ultra-supercritical coal-fired plant began commercial operation in southwest Arkansas.

The Turk Plant is one of the cleanest and most efficient pulverized coal plants in the United States, using less fuel and producing fewer emissions compared with traditional pulverized coal plants. This is an example of AEP's leadership to further advance coal generating technologies. In addition to contributing to a more balanced fuel mix for that region, the plant created 109 new local jobs and will generate long-term direct and indirect economic benefits to the region.



We have also increased our use of natural gas by 130 percent since 2009 due to low gas prices and the availability of our combined-cycle gas plants. Our use of renewable energy has increased to nearly 2,000 MW, with more to come. Energy efficiency is making strong gains in our states, as are demand response programs. We are investing in our Cook Nuclear Plant in Michigan to ensure that

it continues operating smoothly for another 20 years. And our 17 hydroelectric and pumped storage plants continue to be a reliable source of emissions-free electricity. Overall, we expect our coal-fired generating capacity to be around 46 percent in 2020 compared with 65 percent in 2012. These are the hallmarks of a more balanced, diverse resource mix that provides real energy security for the future.

AEP Continues Strong Record of Innovation

As would any organization striving to become more sustainable, we not only stay focused on the future, we plan for it and sometimes strive to shape it. Innovation has enabled us to meet challenges over and over again that improved our efficiency, our reliability and our customer service. We are an innovative and creative organization, and we have thrived for more than 100 years on the strength of our "intrapreneurs" – the many employees throughout the company who create and help deploy new technologies and services or who simply find better ways to do their jobs and serve our customers. The construction of the Turk Plant in Arkansas is an example of this spirit and commitment.



Our Transmission business exemplified our innovative spirit in 2012, developing a new high-capacity, low-profile 345-kV line design that offers a high capacity alternative to conventional 345-kV or higher extra-high voltage lines. Once commercialized, the new line will enable better use of rights of way than traditional 345-kV or 500-kV lines. As a result, the

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new design will help to lessen siting challenges and be less costly per megawatt-hour of energy delivered. Patents for this new design are pending with the U.S. Patent and Trademark Office.

In addition, our Transmission team developed ways to accelerate the construction and installation of critical electrical facilities to better serve the growing demand for electric service from oil and gas producers. These new technologies and practices enable AEP to serve these customers in an expedited manner, supporting local economic growth and job creation.

I invite you to read more about these and other technology breakthroughs in **Innovation and Technology.**

Sustainability Governance, Reporting and Stakeholder Engagement

We have built on our heritage of innovation to become a company that can respond to, and anticipate, the expectations of stakeholders and the public regarding our environmental, social, operational and economic performance. Our capacity for positive and dynamic interaction with our stakeholders will be increasingly vital to our business success in the years to come.

Effective engagement occurs when companies and stakeholders disclose important information to one another about their activities and future plans. We started to report on our environmental, social and economic activities and plans in 2007; and, in 2010, we became one of the first companies in the United States to integrate our sustainability report with our annual shareholder report. This approach gives a more holistic and comprehensive view of our company and a better understanding of the interdependencies of our financial and nonfinancial performance.

We also began an extensive effort to engage our stakeholders in 2007, meeting with national and regional stakeholders at corporate headquarters in Columbus, Ohio, and with local stakeholders at some of our power plants and operating company headquarters in our service territory. As we moved forward, we realized that it is vitally important for us to be able to prioritize and respond to the issues that our stakeholders consider important and take those issues into account whenever possible.

As we have done since 2007, we held a number of meetings and conference calls with key stakeholders in 2012, and we also conducted a survey of more than 250 internal and external stakeholders. This important work helps us to adjust priorities and guides our reporting.

I invite you to learn more about this assessment.



Stakeholder engagement, although sometimes contentious, has always been productive for us. It has helped us to expand our thinking in many ways and has allowed us to be open and candid about our positions and activities in the realm of public policy.

Board Changes

We will greatly miss the wisdom and guidance of James Cordes, who was elected to our Board of Directors in 2009 and is retiring this year. Jim's decades of experience in the natural gas pipeline business have proved invaluable to us. We wish him all the best in his future endeavors.

Three new directors have joined the board in the past year: Sandra Beach Lin, former president and CEO of Calisolar, Inc. (now Silicor Materials); Steve Rasmussen, CEO of Nationwide; and Oliver G. "Rick" Richard III, former chairman, president and CEO of Columbia Energy Group. Already, the board has benefited from the range of backgrounds, skills and perspectives that Sandy, Steve and Rick bring to our deliberations.

A Promising Future

An energy renaissance is under way in America. The nation is becoming more self-reliant on indigenous resources, including a diversity of fossil fuels, renewable energy and conservation. Safe, reliable and affordable energy has long been the backbone of the U.S. economy, delivering comfort to customers, a competitive edge to businesses and a quality of life to citizens that others seek to emulate. But many of us take energy for granted; we assume that power will always be there wherever we need it and whenever we want it. We learned during several severe weather events in 2012 that no matter how well prepared we are, this may not always be the case. We face harder lessons ahead if we do not gain traction on a national energy policy for the next generation.

Just as customers want price signals to help them use energy more efficiently, our industry needs incentives and changes to electricity markets to encourage the significant, long-term investments that are needed for a robust, reliable electric grid in the future. At AEP, we already have the future in focus.

We are putting steel in the ground as we rebuild and expand our transmission system. We are working with regulators to improve the reliability of our distribution system while moving forward with new smart grid technologies to increase the efficiency of our system and give customers more control of their energy use. We are retiring older coal-fired units, thus reducing our environmental impacts. But coal will be part of our fuel mix as well as the nation's fuel mix for the foreseeable future. Our commitment is to ensure that we are using it in the safest and most efficient way possible with the least amount of environmental impacts. To that end, we continue to champion research and development of new technologies and to enhance our operating and maintenance practices to continually improve our environmental performance.

AEP is a proven industry leader and innovator, and we are putting our knowledge and efforts to work helping our businesses, homes and communities to be safe, secure and prosperous. From developing new power line designs, to streamlining processes that allow us to serve customers faster and more cost efficiently, we are helping America's industry to be more competitive, creating new jobs and supporting economic expansion where it is needed most. Energy is proving to be the accelerator of economic growth America needs.

I am very proud to lead AEP as we move forward together with a clear sense of purpose. We have made much progress, and we have more to accomplish. We invite you to join us and to learn more about who we are, what we have achieved and our plans for the future.

Nicholas K. Akins

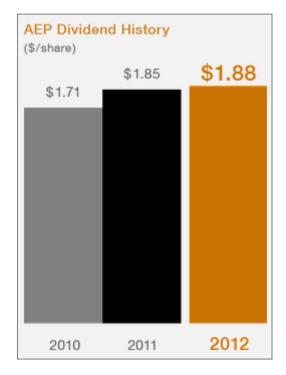
President & Chief Executive Officer

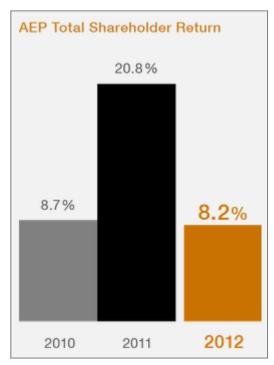
Votabel & China

April 2013









Leadership & Strategy

Leadership Message

"The energy business has changed dramatically during the past few years and so has AEP. These changes have led to some positive outcomes, including greater fuel diversity, environmental gains, new jobs and grid modernization."

- Nick Akins, President and Chief Executive Officer

AEP's Board of Directors



From Left to Right:

John F. Turner, Lionel L. Nowell III, Steve Rasmussen, Richard C. Notebaert, Linda A. Goodspeed, Oliver G. Richard III, Thomas E. Hoaglin, Nick Akins, Michael G. Morris, James F. Cordes, Sandra Beach Lin, Richard L. Sandor, Ralph D. Crosby, Jr., David J. Anderson, Sara Martinez Tucker

Our Philosophy

AEP has been in business for more than a century. Our job is to produce and deliver electricity safely and reliably to more than 5.3 million customers in 11 states. Today, there is no statement more relevant in describing our business, our commitment to our customers and our contributions to society as that made by George N. Tidd, president of American Gas & Electric, in 1934. The company was renamed American Electric Power in 1958. This philosophy continues to guide us today.

"Our job is generating electricity and getting it to where it's used. We're in this business because it is concerned with the supply of a fundamental requirement of modern living, because it's an honorable one, because we like it, and because we want to earn a living at it.

We aim to give one kind of service to everyone... the best that's possible. That means supplying our customers with what they want when they want it. It means being courteous at all times and maintaining attractive, easy-to-do-business-with offices.

It means doing everything we can to keep complaints from arising, and it means prompt and fair handling of those that do.

We are a citizen of each community we serve and take an active part in its affairs. Like any other citizen, we want our neighbors to think well of us. Besides, it makes good business sense. We prosper only as the community prospers; so we help it thrive in every way we can.

Such is our job as we see it. We are trying to do it well and to do it better all the time."

Strategic Goals

Our focus is on executing our strategy to grow and invest in our regulated businesses; deliver superior service to our customers; provide a collaborative, rewarding work environment for our employees; develop our competitive businesses; and deliver value to our shareholders. To achieve our strategic objective of 4 percent to 6 percent earnings growth, we are executing on the following goals:

- Optimize regulated utility returns: AEP's financial objectives are to earn our allowed returns by prudently investing capital for our customers and maintaining our investment-grade credit ratings.
- **Grow our transmission business**: AEP Transmission's growth strategy depends on building and cultivating a portfolio of businesses under the AEP Transmission Holding Company. For the year ending Dec. 31, 2013, AEP Transmission Holding Company projects it will contribute \$67 million in earnings. Our portfolio consists of:
 - AEP Transmission Company A holding company for state-regulated transmission companies, or Transcos.
 - Joint ventures Joint ventures with other utilities are longer-term projects offering FERC formula rates and other rate mechanisms that provide a higher return on equity.
 - Transource Energy A competitive business started in 2012, Transource focuses on developing projects within and beyond the AEP service territories, with flexibility to add projects and partners as opportunities arise.

- **Transform our generation business**: External factors continue to call for significant changes in our generating fleet. We will do this by:
 - o Diversifying our fuel mix.
 - Complying with environmental regulations by retiring approximately 5,500 megawatts (MW) by the end of 2016 and refueling or retrofitting nearly 11,000 MW of coal-fired generation between now and 2020.
 - o Improving the operational performance of our generation fleet.
- **Build our competitive business platform**: AEP formed a new Energy Supply organization in late 2012 to oversee this business unit. Its objectives include:
 - o Achieving corporate separation in Ohio by Jan. 1, 2014.
 - o Integrating competitive generation with our retail and wholesale businesses.
 - o Investing capital conservatively.
 - Mitigating risk and volatility through hedging activity.
- Improve the health of our organizational culture: Culture is a business imperative to successfully execute on our strategy, yet it is abstract and subjective. It's our job to reach out to all of our employees, communicate the strategy and vision, and focus on how each business unit can contribute to AEP's overall strategy and vision so all employees know exactly what their roles are.



AEP's Executive Team

Lana L. Hillebrand, Senior Vice President and Chief Administrative Officer; David M. Feinberg, Executive Vice President, General Counsel and Secretary; Nicholas K. Akins, President and Chief Executive Officer; Brian X. Tierney, Executive Vice President and Chief Financial Officer; Dennis E. Welch, Executive Vice President and Chief External Officer; Robert P.

Powers, Executive Vice President and Chief Operating Officer; and Lisa M. Barton, Executive Vice President, AEP Transmission.

Corporate Leaders and Governance

Materiality Assessment

Materiality is central to disclosure and investment performance. We consider material issues to be those that have affected, or that are reasonably likely to affect, the company's reputation, liquidity, capital resources or results of operations. Material issues can also include those that stakeholders consider important to their interests and to AEP's sustainability.

To prepare this 2013 Corporate Accountability Report, AEP conducted a <u>materiality assessment</u> to ensure that we were reporting on sustainability issues of importance to our stakeholders and our business and to identify potential improvements in our presentation of information. This represents a change in the approach to and engagement of our stakeholders. It provided us an opportunity to ensure that issues deemed to be material by our stakeholders align with our business strategy and risks. Understanding these linkages allows us to be more focused in our engagement and to allocate resources where there is the greatest opportunity for sustainable growth while mitigating potential risks.

We sought opinions from more than 250 internal and external stakeholders. This outreach extended to the six-member Committee on Directors and Corporate Governance and the Chairman of the AEP Board of Directors, all of whom completed the survey. This committee has oversight of AEP's sustainability reporting and initiatives and was deemed the most appropriate Board engagement for this first assessment. In the future, we will engage the entire Board.

The feedback we received from the survey helped us to prioritize AEP's environmental, social and governance (ESG) performance and to rank those issues based on their importance to stakeholders and to AEP. This report reflects the outcome of this process.

Although we reached out to many external stakeholders, we did not receive as robust a response as we had hoped for. We would have especially liked a greater response rate from customers, NGOs and governmental stakeholders and will work harder to engage them in the next survey. AEP worked with MetaVu and CRD Analytics on the assessment, which involved an objective, strategic review of AEP's existing materiality model (issues, stakeholders, methodology, visual charts and stakeholder communications, etc.). It was important to us to include an investment analyst's perspective in this process, which CRD Analytics represented.

We also sought to understand key changes in reporting expectations as presented by the Global Reporting Initiative (GRI), the International Integrated Reporting Council (IIRC) and the Sustainability Accounting Standards Board (SASB). We aligned those changes in the standards with our material risks as identified by management, the Risk Executive Committee and the Board of Directors, to assure that we were measuring and reporting in a meaningful and useful fashion.

Shifting Priorities

In 2012, we reported on more than 80 issues; we condensed that list to 36 issues and, of those, 15 continued to be issues of high priority for internal and external stakeholders. Those are the issues we are focusing on most intently.

The survey received a 56.3 percent response rate, which exceeded expectations. Participants ranged from AEP Board of Directors members, investors and employees to customers, suppliers (fuel and non-fuel), non-government organizations, contractors, labor unions and trade organizations.

Issues of High Priority for Internal & External Stakeholders			
Stakeholder Group	Respondents	% of Total	
AEP Senior Manager	35	24.3%	
AEP Employee	34	23.6%	
Contractor	16	11.1%	
Supplier-Non-Fuel	13	9.0%	
Invester	9	6.3%	
AEP Board of Directors	7	4.9%	
Non-governmental Organizat	ion 7	4.9%	
Supplier-Fuel	7	4.9%	
Customer	5	3.5%	
Labor	5	3.5%	
Trade Organization	3	2.0%	
Other	3	2.0%	
Total	144	100.0%	

Not surprisingly, there are changes in priorities among stakeholder groups. Some issues, such as environmental performance (including climate change) remain a high priority for AEP and its stakeholders. These issues have long dominated many of our conversations with stakeholders and led us to set goals to improve and enhance our environmental performance and reduce CO₂ emissions. Environmental performance and regulation uncertainty continue to be significant issues to the company and to society and thus remains a material issue to AEP, as reflected by the amount of time, effort and financial resources we devote to our environmental performance and

compliance. We have continued to be transparent about our environmental efforts while narrowing the focus of our reporting.

At the same time, other issues have risen to the top. This new assessment shows that energy reliability and security, the business value and cost of electricity and innovation and technology are also top areas of interest. We attribute this to the rapidly changing business and operating environment, which is driving a major transformation of our company and our industry. It may also reflect heightened awareness of reliability issues in the wake of several severe weather events in 2012 that caused massive power outages.

This assessment was compared with the material risks of the company to validate the relevance and importance of each issue to AEP and its stakeholders. This exercise helped us to level-set our performance with the expectations of our many diverse stakeholders as we move forward and give greater focus to our performance reporting.

Resource Diversity



A balanced and reliable energy future

Our energy security as a nation depends on using multiple sources of energy. A diverse fuel mix is an insurance policy in the event that changing conditions or economic circumstances make any given fuel source impractical or impossible.

We project that our fuel generating capacity will shift from 60 percent coal and 23 percent natural gas in 2013, to 46 percent coal and 33 percent natural gas by 2020. The remainder of our resource needs will be filled by renewable energy, nuclear, hydroelectric and pumped storage, and energy efficiency and demand response programs. Although demand response and energy efficiency capacity does not represent a physical asset, it does represent avoided capacity.

National electricity consumption is predicted to grow at an annual average rate of 0.7 percent between 2011 and 2040, according to the <u>U.S. Energy Information Administration's</u> (EIA) Annual Energy Outlook 2013 Early Release Overview. Socioeconomic and market factors as well as additional energy efficiency rules, such as new appliance and building efficiency standards, may slow the growth of energy consumption somewhat. Despite these forces, energy demand is expected to continue its modest growth rate for the foreseeable future.

As we seek to balance our fuel mix, we are looking at resources in a different light. In addition to traditional fuels such as coal, natural gas, nuclear and hydroelectric power, we also see transmission, smart grid and energy efficiency as vital parts of our resource mix. This will ultimately drive us to using less coal. Although coal is challenged by regulations, it remains an

important resource to ensure a reliable, secure energy future. Through the development of shale gas, the growth of renewable energy, the advancement of smart grid technologies and the development of transmission, we now have new and broader resource opportunities.

Our decision to build the 600-megawatt (MW) John W. Turk, Jr., Power Plant in southwestern Arkansas exemplifies our continued commitment to the responsible use of coal as a fuel source. The Turk Plant is the first coal-fired plant AEP has built in more than two decades and represents the future of coal-based technology that we continue to advance. The Turk Plant is the only operating U.S. power plant to use ultra-supercritical technology and is among the nation's cleanest, most efficient pulverized coal plants. Turk began commercial operation in December 2012 after a variety of regulatory and legal challenges were resolved and was officially dedicated in April 2013.

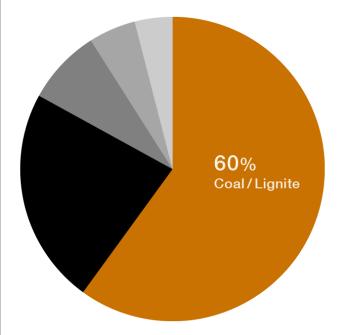


The 600-MW John W. Turk, Jr., Power Plant in southwestern Arkansas exemplifies our commitment to the responsible use of coal as a fuel source.

SWEPCo owns 73 percent of the plant's capacity and operates the facility; its share of the construction cost was \$1.3 billion of the plant's \$1.8 billion cost. Co-owners are Arkansas Electric Cooperative Corp., 12 percent for its 490,000 members; East Texas Electric Cooperative, 8 percent for its 178,000 customers; and Oklahoma Municipal Power Authority, 7 percent, serving 39 municipal electric systems in the state.

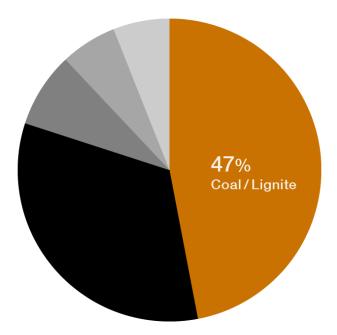
In addition to providing energy reliability and fuel diversity to the region, the plant created 109 new, permanent jobs with an estimated annual payroll of \$9 million. The plant is estimated to provide an additional \$6 million in annual school and property tax revenues in southwest Arkansas. At the peak of construction of the Turk Plant, which began in November 2008, the project provided up to 2,200 construction jobs.

2013 AEP Owned Generating Capacity* by Fuel (42,353 MW)



- 23% Natural Gas
 - 8% Hydro, Wind, Solar & Pumped Storage Includes installed capacity, not the actual output.
 - 5% Nuclear
 - 4% Energy Efficiency/Demand Response
 - * Capacity includes AEP's ownership interest in OVEC and purchased power agreements for wind energy. Energy efficiency/demand response capacity does not represent a physical asset but avoided capacity.
 - Capacity portfolio as of March 2013.

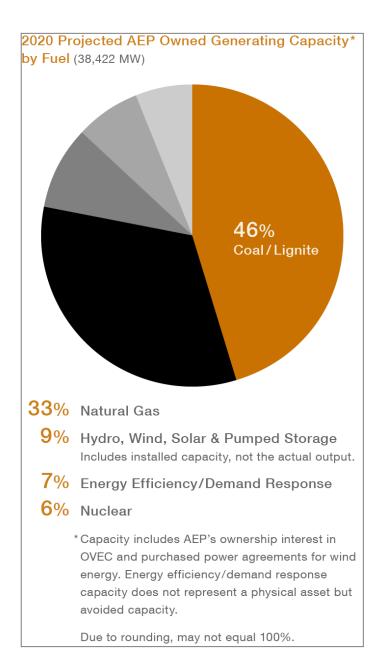
2016 Projected AEP Owned Generating Capacity* by Fuel (37,735 MW)

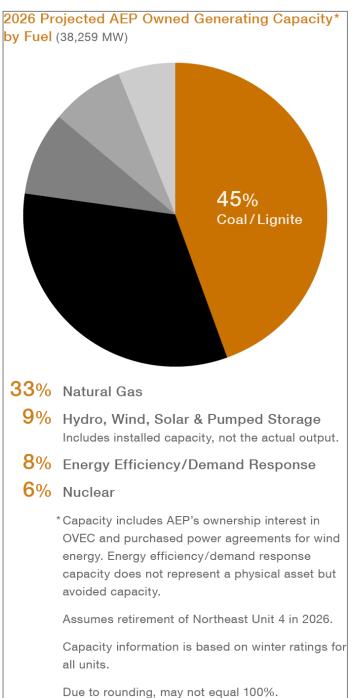


- 33% Natural Gas
 - 8% Hydro, Wind, Solar & Pumped Storage Includes installed capacity, not the actual output.
 - 6% Nuclear
 - 6% Energy Efficiency/Demand Response
 - * Capacity includes AEP's ownership interest in OVEC and purchased power agreements for wind energy. Energy efficiency/demand response capacity does not represent a physical asset but avoided capacity.

Assumes approx. 5,480 MW coal retired between 2013 and 2016.

Assumes approx. 1,860 MW of coal converted to natural gas between 2013 and 2016 (Big Sandy Plant Unit 1, Clinch River Plant Units 1 & 2, Muskingum River Plant Unit 5 and Tanners Creek Unit 4).





Natural Gas: Game Changer

Our nation has abundant resources of natural gas, which has certain environmental and price advantages over coal and is capturing an increasing share of the domestic electric generation market. Natural gas creates significantly lower amounts of carbon dioxide and other emissions when burned than does coal. And natural gas prices are expected to remain comparatively low. New gas plants or existing coal units modified to burn natural gas will likely replace a portion of the energy lost as coal units are retired.

We have been ramping up our own use of natural gas largely due to the efficiency of our combined cycle gas units and its affordability as part of a balanced portfolio. We have been operating four combined-cycle gas plants: the 840-MW Waterford and 580-MW Dresden plants in Ohio; the 1,200-MW Lawrenceburg Plant in Indiana; and the 543-MW J. Lamar Stall Unit in Louisiana.

AEP Natural Gas Usage				
	2010	2011	2012	
\$/MMBtu	\$4.80	\$4.48	\$3.01	
MMBtu	141,289,297	170,259,309	223,409,764	
Bcf	133.6	166.8	220.0	

We have increased our use of natural gas by about 130 percent since 2009. A mild winter (in 2011-2012) and high levels of natural gas production from shale gas formations that led to higher natural gas inventories and downward pressure on

gas prices made power generated by these units more economical.

Technology advancements in the oil and natural gas industries, through the use of horizontal drilling and hydraulic fracturing, or fracking, are driving significant economic growth and potential for future growth in Arkansas, Oklahoma, Ohio, Louisiana, Texas and West Virginia. And our companies and customers are benefiting from these advancements. Extraction of gas from shale formations is altering the fuel mix throughout the industry by making gas more competitive with other fuel sources. Shale gas is in abundant supply in much of our footprint, and extraction with these technologies is producing economic and customer growth opportunities





The 580-MW Dresden Plant in Ohio is one of AEP's four combined-cycle gas plants.

In Texas, drilling on the Eagle Ford shale formation has created higher demand for, and the need for quick access to, electrical power to operate drilling rigs and processing facilities. Shale gas extraction is supporting local jobs, economic growth and electricity demand growth for our companies. This increase in demand in Texas and elsewhere requires us to engage in a system-wide review of capital investment priorities. Our Economic & Business Development team is on the ground working with the oil and gas industries and in 2012 expanded to the Internet, giving oil and gas companies in Texas and elsewhere, a one-stop shop location for the services they need. At the same time, AEP Texas established a special website specifically for the oil and gas industry to assist with their development needs in that state.

We are closely monitoring the risks associated with increased reliance on shale gas, such as concerns related to the possible impacts of fracking on ground water. Production from fracking could be far more limited if it becomes subject to more environmental regulations. As supply decreases or slows, either from regulations or market forces, prices will rise. Reported seismic activity from disposal of fracking fluids poses additional potential for risks. Ohio's Department of Natural Resources has said it believes that the high-pressure injection of gas drilling wastewater into the ground was responsible for a series of earthquakes in the state and recently imposed new regulations as a result.

We support development of shale gas resources as long as it is done in an environmentally responsible manner. Without a doubt, shale gas is changing the industry. It is contributing to low natural gas prices, but because no one can guarantee low natural gas prices for the foreseeable future, and there are many external factors that could cause the same price swings we have seen with natural gas in the past, it is not in the best interest of our nation to become overly dependent on it or any single fuel for our electricity generation.

Harmonizing The Gas & Electric Industries

The natural gas and electric utility industries have worked together for years to help grow the economy. Utilities are the backbone of our economic growth and prosperity. The electricity sector continues to become more reliant on natural gas. In April 2012, natural gas accounted for the same percentage of total U.S. electricity generation as coal for the first time since the Energy Information Administration began collecting data in 1973. Along with the growing interdependency of the electric and natural gas sectors, concerns have increased about potentially disruptive incompatibilities between the two. These concerns must be addressed to maintain and increase the reliability and cost-effectiveness of natural gas and electricity supplies.

Chief among the concerns is the lack of synchronization between the two industries. For example, the natural gas day for securing supplies starts at 9 a.m. Central time, one day and runs

to 8:59 a.m., Central time, the following day. Conversely, the power market operates on a real-time, calendar-day basis, based on the applicable time zone. The concern is that most gas supplies are not guaranteed before the electricity day markets have cleared, creating uncertainty in supply reliability, cost and availability.

In an effort to better understand the interdependency of the electric and natural gas industries, the <u>Federal Energy Regulatory Commission</u> (FERC) asked both industries in 2012 to provide information, particularly regarding the role the agency should play in coordinating the two markets. In response, the North American Energy Standards Board created a committee to identify and assess potential gas-electric harmonization issues and to make recommendations on standards development.

FERC held a series of five technical conferences around the country in late summer 2012, and AEP participated in two of them. We also participated in a technical conference in February 2013. Although our risk is minimal now, we will remain engaged in the dialogue.

In February 2013, FERC approved an interim information-sharing policy that allows the New England grid operator to share operational data from gas-fired power plants with pipeline operators to avoid gas shortages on cold days, when both electricity and heating demand is high. If effective, this may become a model for the rest of the nation as more power generators increase their use of cleaner-burning natural gas.

Nuclear & Hydroelectric Power

Nuclear power and hydroelectric power will continue to be important resources in our energy portfolio. AEP's 2,100-MW <u>Donald C. Cook Nuclear Plant</u> in Bridgman, Mich., provides low-cost, emission-free electricity to <u>Indiana Michigan Power Company's</u> (I&M) customers and is an important component of I&M's generation resources. The two units at the Cook Plant produce enough energy to power approximately 1.5 million homes and account for 40 percent of I&M's power generation portfolio.

The Cook Plant received license extensions from the Nuclear Regulatory Commission in 2005 that will allow the units to run until 2034 and 2037, respectively – an additional 20 years beyond their original operating licenses.

In February 2013, I&M received approval from the Michigan Public Service Commission (MPSC) for its Life Cycle Management (LCM) Project at the Cook Plant. This project will allow the plant to continue operating effectively during its 20-year operating license extension.

The MPSC granted I&M's request for a certificate of necessity at the Cook Plant with respect to the LCM Project and the ability to recover associated costs. A similar request is under consideration in Indiana.



AEP operates 17 hydroelectric and pumped storage projects in five states.

AEP operates 17 hydroelectric and pumped storage projects in five states. These projects, which help reduce our carbon dioxide emissions, produce approximately 800,000 MWh of generation annually. Renewable energy provides another important form of diversification, and a number of state standards calling for it and providing incentives are driving part of the market. Learn more about <u>AEP's renewable energy portfolio</u>. Energy efficiency and demand response programs round out what is needed for a balanced resource mix for the future.

Efficient Use of Energy

AEP is proud of the efficiency gains we've been able to accomplish over the last several years across our service territory, and we have always encouraged our customers to use energy wisely and efficiently. Today, we see achievable levels of energy efficiency and demand response as important resources that should be incorporated into our integrated resource planning process.

Energy efficiency and demand reduction programs have received regulatory support in most of the states we serve, and appropriate cost recovery will be essential for us to continue to expand these consumer offerings. Appropriate recovery of program costs, lost revenues and an opportunity to earn a reasonable return ensures that energy efficiency programs are considered equally with supply side investments, such as power plants. In the future, AEP needs certainty and consistency around cost recovery for energy efficiency mandates from our state commissions. We need to be treated fairly and uniformly and have the opportunity to earn a return on our investments and recover our costs to comply with those mandates.

"The successful utilities of the future will figure out how to truly make energy efficiency a key element of their business model."

- AEP Stakeholder

In 2008, AEP established a goal to reduce demand by 1,000 megawatts (MW) and energy consumption by 2,250,000 megawatt-hours (MWh) by the end of 2012 through energy efficiency and demand response programs. Since that time, AEP's operating companies have implemented a wide variety of new consumer programs across most of the states we serve. In fact, more than 100 energy efficiency and demand response programs are now in place. This allowed us to achieve our objective of ramping up energy efficiency programs where they are supported.

Preliminary estimates indicate that we exceeded our goal. From 2008 through 2012, AEP achieved 3,016,400 MWh of energy reduction and 1,011 MW of demand reduction, or 134% and 101% of goal, respectively. For the same period, AEP's operating companies have invested more than \$368 million in energy efficiency and demand response initiatives. Final results are subject to independent third-party evaluation and verification of savings, as required.

However, with increasing efficiency standards, such as enhanced building codes and appliance standards, we are concerned that energy efficiency mandates will become more difficult to achieve in the future. Regulators in some of our states are rethinking their mandates in part due to cost and achievability. Our concern is that financial penalties could be imposed if we do not achieve escalating benchmark requirements, even if a good-faith effort was made.

Further, certain mandated requirements may be virtually unachievable from an economic perspective. In other words, the cost to attain the participation requirements could be much higher than the overall benefits associated with the corresponding impacts. In such instances, AEP would be opposed to implementing any programs that are not cost-effective, and AEP should not be penalized for not achieving energy efficiency targets.

AEP System Energy Efficiency Results for 2012			
Company	MW Saved	MWh Saved	Total Spend
AEP Ohio	70	610,877	\$64,115,574
AEP Texas	45	71,475	\$14,095,755
Appalachian Power Company (APCo)	33	84,390	\$5,073,614
Indiana Michigan Power (I&M)	61	130,995	\$11,419,689
Kentucky Power Company (KPCo)	3	15,422	\$3,102,705
Public Service Company of Oklahoma (PSO)	56	82,661	\$21,846,897
Southwestern Electric Power (SWEPCo)	26	48,064	\$9,767,113
TOTAL	294	1,043,884	\$129,421,347

We have also made significant investments to enhance the efficiency of many of our coal-fired plants, thereby offsetting the energy needed to run emission control technologies. And we have taken measures to reduce energy consumption in our office buildings and service centers. We reduced our kilowatt-hour (kWh) usage by 23.8 percent by the end of 2012, compared with the 2007 baseline. The equivalent accumulated savings from reduced energy consumption at more than 400 facilities exceeds \$12 million. We achieved these energy consumption reductions through equipment investments, such as new heating and cooling equipment, and an employee education campaign. By reducing usage, we are able to sell the unused energy in the wholesale energy market, or not produce it at all, as well as reduce our impacts to the environment.

In addition to energy savings in our buildings and power plants, <u>AEP Transmission</u> installed new low-loss transformers at two of its stations in 2012. These new transformers provide more than a 30 percent reduction in total energy losses compared with the transformers installed in previous years. The higher efficiency transformers have lower energy losses from the equipment and will provide significant cost savings over time.

Regulatory & Customer Rate Management



There are many factors that can affect the price and reliability of energy throughout the country. AEP has advocated for years that we need a national energy policy to serve as a road map for how our country will generate and deliver electricity in a reliable, cost-effective manner over the long term. The key is whether our elected leaders can overcome the political gridlock in Washington, D.C., and develop a federal energy policy that supports business and job growth.

There are some important aspects of an energy strategy that need to be addressed:

- Preventing overdependence on one fuel/maintaining fuel diversity
- Aligning the natural gas and electricity markets to address issues such as pipeline capacity and location, pricing and scheduling protocols, which need to be coordinated to address reliability concerns
- Infrastructure investment and transmission development
- Rational energy and environmental regulations

Because Congress has not been able to achieve a broad solution to environmental and energy policy, the <u>U.S. Environmental Protection Agency</u> (EPA) may be more aggressive over the next four years in initiating new rules that will impact this industry over the long term, enacting

energy policy through regulations. Our industry will make a huge investment through the end of the decade just to comply with new EPA regulations affecting power plants. For AEP alone, we estimate the cost to be \$4 billion to \$5 billion between now and 2020 to make the remaining coal units comply with current and anticipated EPA regulations.

The regulations coming from the EPA need to be as reasonable as possible in the implementation timelines to minimize detrimental economic impacts to the states in which we operate and to minimize negative reliability impacts on the grid across the nation.

In addition to environmental compliance costs, the electric utility industry will need to invest approximately \$2 trillion over the next two decades to refurbish and replace existing infrastructure and to build new facilities to meet the nation's future energy needs. With investments this large, it is easy to see why we need a national energy policy to allow our industry to plan with more certainty over the long term.

Regulatory Environment

The electric utility industry regulatory environment is vastly different from five years ago. A combination of slow economic growth, the low cost of natural gas, more stringent and expensive environmental regulations and other factors have forced us to be more agile and adaptable to ensure our long-term health. We have made significant strides to reduce the time between investment and cost recovery from customers (known in the industry as regulatory lag). We have done this by collaborating with regulators and other stakeholders to develop rate frameworks that balance AEP's need to recover its costs to maintain and operate its system with our customers' ability to pay for it.

Current Regulatory Activity

Operating Company Model

We have a responsibility to deliver safe, reliable, quality electricity to our customers. In doing so, we strive for operational excellence and seek to deliver the best customer service we can. To support this compact, we are dependent upon a regulatory framework that determines the rates we can charge our customers to operate and maintain our system and the returns we can earn on our investments – unlike most private sector companies.

Our shareholders lose value and the company's earnings suffer if we make investments and are not allowed to recover our costs or are unable to earn a reasonable rate of return. At the same

time, customers are sensitive to rate increases. To address this issue, we decentralized our business operations model, putting more responsibility and accountability in the hands of our operating company presidents.

As a result, <u>operating company presidents</u> have more autonomy along with greater responsibility for their companies' balance sheets, credit ratings, liquidity, earnings, capital allocation, rate base growth, regulatory relationships and overall performance. They work collaboratively with all other business units and with each other to meet the needs of their customers. This local approach also strengthens their relationships with their communities and provides a better

AEP Utility Revenues by Class (\$ in millions)			
	2010	2011	2012
Residential	\$5,125	\$5,207	\$5,114
Commercial	\$3,406	\$3,319	\$3,216
Industrial	\$2,840	\$2,953	\$2,772
Wholesale	\$1,993	\$2,254	\$2,210

understanding of what local regulators will support.

This improved line of sight has helped us to develop several rate frameworks that have enhanced our ability to recover costs. We also have improved many of our regulatory relationships, which are

important as we embark on significant capital investment programs to comply with environmental regulations, invest in our transmission infrastructure and maintain the operational integrity and reliability of the entire system.

In spite of this localized control, our operating companies are challenged by the availability and competition for finite capital resources, the demands of operating and maintaining an aging grid, more environmental and reliability regulations, growing retail competition in some states, a sluggish economy, and little growth in electricity demand. They must address these competing needs while balancing customers' ability to pay for the increasing costs of maintaining a reliable electric system.

Company	Customers**	Revenues	Net Income	Total kWh Sales (in thousands
AEP Texas Central	799,000	\$988,858	\$109,466	23,893,000
AEP Texas North	187,000	\$286,154	\$30,689	5,145,000
Appalachian Power*	960,000	\$3,276,931	\$257,503	37,940,000
Indiana Michigan Power*	584,000	\$2,200,111	\$118,457	28,185,000
Kingsport Power	47,000	\$151,607	\$2,502	2,065,000
Ohio Power*	1,459,000	\$4,928,196	\$343,534	60,124,000
Public Service Company of Oklahoma*	535,000	\$1,232,938	\$114,141	19,455,000
Southwestern Electric Power*	524,000	\$1,577,834	\$202,513	25,908,000
Wheeling Power	41,000	\$180,992	\$36,450	2,5000,000
*SEC registrants				
** Customers as of 12/31/2012				

The Cost of Electricity



Many factors can affect the price and reliability of electricity. The cost of energy is important to customers and to the economic conditions of our service territory. High electricity rates have particularly affected economic growth in the eastern part of our service territory due to the large concentrations of energy-dependent heavy industry. In energy-intensive industries, such as primary metals, paper and chemical manufacturing, where electricity is a major cost of production, companies need to be able to plan and budget with some certainty if they are to continue operations. Rapidly increasing rates can result in a downward spiral for our regions if manufacturers are no longer able to compete and are forced to move elsewhere. Our service territory consists of many states in which mean household incomes are already below the national average. There are very real social and economic concerns to consider as the cost of electricity goes up.

To foster more timely recovery of expenses and greater regulatory certainty, AEP supports the use of alternative ratemaking models. The traditional rate case process cannot accommodate the scale and speed required for timely recovery of necessary utility investments, which puts upward price pressures on our customers. More timely recovery reduces regulatory lag, which allows for more uniform rate increases.

Certain state regulators have ordered some costs, such as fuel, to be deferred and collected in the future. But the bill eventually comes due and customers must pay for the costs of regulation, fuel used to generate their electricity in previous years, or investments that are needed to maintain reliability.

Securitization is a process in which certain regulatory assets, such as deferred fuel costs, are converted into cash through a sale of securities. Although we believe fuel should be recovered as those costs are incurred, securitization can mitigate the adverse impact of a large recoverable cost by spreading the cost to customers over several years at a lower interest rate. For example, in Texas, AEP has used securitization to recover state-mandated restructuring and stranded costs - costs associated with assets that are no longer in rates. Securitization legislation has been passed in other AEP jurisdictions where customers may experience similar upward price pressures.

Market Shifts In Ohio

More than a decade after Ohio's governor signed a bill into law deregulating the state's electricity market, the legal and regulatory web of actions implementing deregulation is still being woven. The long and complicated shift toward a competitive market for power generation in <u>AEP Ohio's</u> service territory moved forward in 2012 but still has several milestones to clear before it is completed.

What happens in Ohio is extremely important to all of AEP. AEP Ohio accounts for almost 30 percent of the corporation's customers and owned generation and 29 percent of AEP's retail revenues.

In 1999, Ohio's state legislature passed Senate Bill 3, deregulating the state's electricity market. For the first eight years the bill was in effect, few customers in AEP Ohio's service territory shopped because AEP's regulated rates were lower than market prices. In 2008, Senate Bill 221 was passed, continuing the long and complicated journey to competition for AEP Ohio.

The company filed its first Electric Security Plan (ESP) in 2008 and it was working well until the recession, when customer demand for electricity dropped sharply. At the same time, natural gas prices started to fall, due in large part to shale gas development.

AEP filed a second ESP in 2011 and received approval in August 2012. While some issues have not been finally resolved, AEP Ohio's service territory is well along the path to a competitive generation market. This means AEP Ohio must separate its generation business from its transmission and distribution businesses, and it expects to complete this process by Jan. 1, 2014. AEP Ohio-owned power plants will be moved to the new AEP Generation Resources Inc., pending FERC approval. Some of the generation will be transferred to other operating companies that need the capacity and the energy to serve their customers, pending FERC and state regulatory approvals.

The process also includes the termination of a regional generation pool agreement among AEP's eastern operating companies. The companies historically "pooled" their resources and dispatched the most efficient units to meet the combined demand of the companies. This decades-old pool agreement has become less effective due to changes in the electricity markets. After corporate separation, AEP Ohio will be a fully regulated transmission and distribution company and will no longer own generation assets.

As AEP Ohio moves its generation assets to a competitive electricity environment, the company will transition toward establishing its generation rates through <u>competitive auctions</u> for customers who have not switched providers. Once the transition is complete, competitive electricity suppliers will bid to provide the electricity supply needed by AEP Ohio's remaining customers. Customers will continue to have a choice of competitive generation providers.

Retail Competition

Competition for retail electricity customers among various service providers continued to accelerate in Ohio in 2012. The ability to switch suppliers of electricity has been in place in Ohio since Jan. 1, 2001, following approval of restructuring legislation approved by the Ohio General Assembly in 1999. While competition began appearing in some of the higher-priced markets in Ohio shortly thereafter, AEP's low rates made it difficult for competitors to gain a foothold through much of the first decade of the 21st century.

"Market competitiveness is a measure of understanding the market, selling cost-effective solutions that yield the best possible product for the consumer and achieving profitability levels that ensure continued development and growth." - AEP Stakeholder

A stagnant economy and low power prices, coupled with the PUCO proactively choosing the competitive market model over a cost-based model, opened the door for competition within the state of Ohio.

At the end of 2012, customer switching in Ohio had resulted in the generation-related gross margin loss of approximately \$235 million. That equated to an annual average of approximately 51 percent of AEP Ohio's retail customer load being served by an alternative supplier over the course of 2012.



Our competitive energy business, AEP Energy, is a retail electricity supplier to residential, commercial and industrial customers. AFP Energy, which acquired BlueStar Energy customers. AEP Energy, which acquired BlueStar Energy, provides a wide array of energy solutions, including retail

electric supply and energy management solutions. The company provides electricity supply in Delaware, Illinois, Maryland, New Jersey, Pennsylvania, Ohio and Washington, D.C., and energy management solutions nationwide. AEP Energy is one of the fastest-growing business units within AEP. At the end of 2012, AEP Energy had more than 160,000 customers compared with 40,000 at the end of 2011.

A challenge for AEP Energy, in a very competitive marketplace with low energy prices, is to profitably grow at a pace that delivers superior financial returns for the associated risk. To achieve this, the company is focused on providing customized products, excellent customer service and timely and accurate billing, and developing robust systems to manage significant growth.

Ethics and Compliance

As an organization, we are guided by our <u>Principles of Business Conduct</u>, which require us to operate with integrity, fairness, respect, and care. Any employee who raises concerns about ethics, safety or compliance issues needs to be able to do so without fear of retribution. This freedom is part and parcel of fostering a risk-aware culture.

We have made significant progress toward this goal during the past few years, providing employees with a variety of safe ways to communicate information and concerns. However, we recognize that we have more work to do. This is especially true following our recent organizational review. As our company changes, if employees are unwilling to report an ethics or compliance violation for fear of retaliation, our corporate culture, the financial health of the company and our reputation are put at risk. Consequently, we are redoubling our efforts to communicate with and engage employees so that they feel free to communicate concerns. Part of this effort will be incorporated into our strategy to develop a stronger, healthier culture.

Lobbying and Political Activity



We actively participate in the political process to advance our long-term business interests and the interests of our customers, employees, shareholders and other stakeholders. We also lobby and work for what we believe is in the best interests of our communities and the nation. We maintain five political action committees (PACs) – one for federal candidates and separate state PACs in Michigan, Ohio, Texas and Virginia. Approximately 30 percent of the employees eligible to participate in one of our PACs do so. AEP's federal PAC, the AEP Committee for Responsible Government, contributed more than \$740,000 to candidates for public office in 2012 and received about \$652,000 from employees. The difference was made up by surplus funds from previous years. Pursuant to federal and state laws, AEP is permitted to pay expenses of operating its PACs. We also have a process whereby political contributions are reviewed annually by AEP's board of directors.

In 2012, we spent about \$7.5 million on internal and external lobbying activities at the state and federal level. This includes dues to trade or national associations for which a portion is used for lobbying. We maintain an office in Washington, D.C., to address issues involving federal legislation and regulation. Each of our operating companies has lobbyists who work in their respective state capitals.

We belong to or participate in several state, local and national organizations, including the Edison Electric Institute, the Business Roundtable and the National Association of Manufacturers (NAM). We do so for a variety of reasons, including staying current on issues, learning best business practices from our peers, and strengthening our relationships with our customers, many of whom are also members. We disclose our political contributions as well as the portion of membership dues to various organizations that is used for lobbying purposes on an annual basis. For more information see our lobbying policy and our disclosure for 2012.

We believe that, as a general rule, it is more beneficial to AEP to remain involved, even if we occasionally disagree, than to withdraw. We believe that we can be far more effective in shaping the policies of the organizations from within, rather than sitting on the sideline.

From time to time, many, if not most, of the organizations to which we belong reach conclusions or take positions with which we disagree. If we feel strongly enough, we voice our disagreement and work to change the organization's position. Sometimes our views prevail, sometimes they do not. Many times we are able to reach some sort of compromise.

We are firm believers in transparency and participating actively in public debate. That belief is based on our deeply held cultural value of collaboration, which we practice both internally and externally. We believe that open, candid discussion and a good-faith attempt to reach common ground is the best way to do business.

Business Performance

Our Performance

Our success is the sum of our financial and non-financial performance. Both are integral to our ability to achieve sustainable growth, keep our environmental and social commitments, and deliver safe, reliable and cost-effective electricity to our customers while delivering fair returns to our shareholders.

Zero Harm is Achievable



Safety is a top sustainability priority at AEP. Our goal is to achieve zero harm -- zero injuries and zero fatalities. We are making progress toward this goal every year and while 2012 was our best performance in AEP's history, we can do better. During the past 17 years, we have worked 5 years without work-related employee fatalities. In 2012, there were no employee or contractor fatalities.

We measure our success based on financial performance, the reliability of our system, our environmental performance and compliance, our ability to manage spending and receive regulatory support for the investments we make in the grid and the safety of our employees, contractors and the public.

Financial Performance



At AEP, we believe sustainability underlies our business strategy and is a key business opportunity. Incorporating sustainability throughout our business enhances our ability to deliver profits to shareholders, meet our obligations to lenders and fulfill our environmental and social commitments. Improving our environmental and social performance, in turn, contributes to our financial well-being.

Our successful execution of financial and operational goals during 2012 was rewarded in the marketplace. AEP shareholders received an 8.22 percent total return, including dividends, which was well above the total shareholder return of negative 0.55 percent for the S&P 500 Electric

Utilities Index. AEP's historical stock-price discount to our peer companies has effectively been eliminated, primarily due to the clarity and risk reduction we have provided our shareholders.



In 2012, we seized the opportunity afforded by low-priced debt capital to redeem all of our long-term, parent-company debt, replacing it with new long-term debt at more attractive rates that will save a projected \$30 million a year in both 2013 and 2014. In February 2013, AEP further strengthened its liquidity capacity by closing on a new \$1 billion, 27-month term loan agreement

that matures May 13, 2015. We are using this to fund maturities of senior notes at Ohio Power through the corporate separation transition period.

We reduced our post-employment benefit liability by \$570 million, or 25 percent, through adjustments to our retiree medical benefits. This retirement medical plan was 91 percent funded at year-end.

We made a \$200 million discretionary contribution to our qualified pension plan during 2012, which was 92 percent funded at the end of the year. Over the past three years, we have contributed \$1.15 billion to our qualified pension fund.

AEP ended 2012 with a strong financial profile and is well positioned to achieve its goal of attaining 4 percent to 6 percent operating earnings growth (from a 2013 earnings base), supported by our regulated operations. These operations also will continue to support the dividend. Including dividends, we forecast a total return opportunity for shareholders of 8 percent to 10 percent.

Execution Remains The Theme In 2013

Investors have more clarity about what to expect from AEP than they did a year ago, but there is still a lot of work to do. While issues around Ohio's move toward a competitive generation business and the corporate separation of generation assets in Ohio are closer to resolution, we need to finalize the regulatory approvals for these transactions and complete the separation. We also have significant rate activity in our SWEPCo subsidiary in order to get the Turk Plant into rates. We have been successful in doing so in Louisiana and we need to continue to seek similar regulatory support in Texas and perhaps Arkansas as well. The financial promise of our

Transmission business and evolving competitive business are reasons for optimism in 2013 and beyond.

The <u>repositioning study</u> that AEP completed last year and began implementing early this year will affect how we are structured and how we operate going forward, and it will help us financially well into the future. The study allows us to streamline processes and increase efficiencies while also capturing sustainable cost savings that will help us achieve earnings growth and reallocate resources to growth areas such as transmission. A Program Management Office was formed to ensure the long-term savings and process improvements identified by the study are attained and to facilitate future savings opportunities that emerge apart from the study. Identified cost savings are allowing AEP to keep its operations and maintenance budget flat from 2012 to 2013, in spite of other increases such as new operations and employee-related costs.

2012 Results

AEP's earnings for 2012, based on Generally Accepted Accounting Principles (GAAP), totaled \$1.26 billion or \$2.60 per share, compared with \$1.94 billion or \$4.02 per share for 2011. AEP's operating earnings for 2012, GAAP earnings excluding special items, totaled \$1.497 billion or \$3.09 per share, down slightly from the corresponding 2011 results of \$1.504 billion or \$3.12 per share. Operating earnings were higher than GAAP earnings due to the exclusion of impairment charges related to Ohio generating plants, an adjustment charge associated with the Texas cap on construction costs of the Turk Plant, a charge relating to our cost restructuring efforts and a tax provision associated with U.K. windfall taxes.

We were able to mitigate unfavorable earnings impacts for 2012, such as customer switching in Ohio, through disciplined operations and maintenance spending. Other unfavorable earnings impacts in 2012 included higher depreciation and amortization expense due to projections for shorter lives of some generating units and higher amortization costs associated with regulatory assets, drought conditions that had a negative impact on <u>AEP River Operations</u>, higher storm restoration costs, and lower off-system sales margins stemming mainly from lower power prices.

Weather-adjusted sales of electricity fell 0.8 percent in 2012 from 2011. The only customer segment to show improvement in 2012 was the commercial segment, in which sales increased 0.3 percent due to strong sales in Texas. The increase in commercial load was the first for that segment since the start of the recession in 2008.

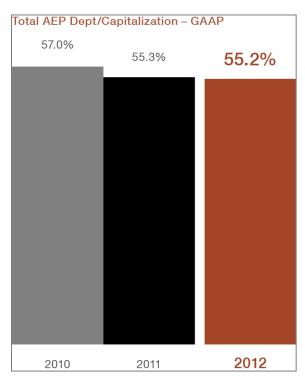
Our liquidity, or access to cash, has increased and our balance sheet remains strong. At year-end 2012, we had \$3.25 billion in credit facility commitments to support our operations. In February 2013, we refinanced at a lower cost, and increased to \$1.75 billion and extended by one year the previous \$1.5 billion core credit facility due to expire in June 2015. We also refinanced and

extended by one year the previous \$1.75 billion core credit facility due to expire in July 2016. We ended 2012 with a debt-to-total-capitalization ratio of 55.2 percent, which is within our target range of the mid-50s.

Because AEP's corporate credit ratings are investment grade, BBB from Standard & Poor's (S&P) and Fitch Ratings, and Baa2 from Moody's Investors Service, we expect to continue to access the debt capital markets at a reasonable cost. Maintaining these ratings requires close attention to spending decisions and a constructive regulatory outlook in the states we serve. In September 2012, S&P completed a review of AEP's credit and declared our business risk profile to be excellent. However, in February 2013, Fitch Ratings put AEP on negative outlook, down from stable outlook. The agency indicated in its opinion that the negative outlook reflects uncertainty around increased financial and business risks with the restructuring of AEP Ohio.

AEP Liquidity Summary (\$ in mi	illions)	
	Amount*	Maturit
Revolving Credit Facility	\$1,500	Jun-15
Revolving Credit Facility	\$1,750	Jul-16
Total Credit Facilities	\$3,250	
Plus		
Cash & Cash Equivalents	\$279	
Less		
Commercial Paper Outstanding	\$321	
Letters of Credit Issued	\$131	
Net Available Liquidity	\$3,077	
* As of Dec. 31, 2012		

AEP Utility kWh Sa	ales (in mi	llions)	
Retail Customer Clas	s 2010	2011	2012
Residential	61,944	61,655	58,780
Commercial	50,748	50,767	50,464
Industrial	57,333	59,667	59,154
Miscellaneous	3,083	3,100	3,072
Total*	173,108	175,189	171,470
Wholesale	32,581	40,519	41,892
Total	205,689	215,708	213,362
* Represents energy delivered to distribution customers.			



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Looking To 2013 and Beyond

Our projected operating earnings range is \$3.05 to \$3.25 per share for 2013 and \$3.15 to \$3.45 per share for 2014. We expect that success in the regulatory arena, continued cost control and increased earnings contributions from Transmission operations will help offset the continued effects of customer switching in Ohio and other increased expenses.

Electricity sales are expected to grow 0.5 percent in 2013, driven by projected industrial growth of 1.8 percent. In Ohio, West Virginia, Oklahoma and Texas, we anticipate increases related to shale gas development and oil and gas production. Residential load is forecasted to fall 0.4 percent from 2012 levels with commercial load expected to decline 0.1 percent.

Growing the dividend for our shareholders remains a priority. In fact, our Board of Directors is targeting a dividend payout ratio (annual dividend divided by operating earnings per share) of 60 percent to 70 percent of earnings, an increase from the previous 50 percent to 60 percent target. The dividend is supported by our regulated operations. AEP has paid a dividend for 411 consecutive quarters, a feat only a handful of companies can claim. Coupled with the increase in the payout ratio, this further indicates the Board of Directors' commitment to our regulated business model and to rewarding AEP's shareholders.

Our capital plan calls for investments of \$3.6 billion in 2013 and an estimated \$3.8 billion in both 2014 and 2015, supported by cash flows from operations and financing activities. Equity financing beyond the existing Dividend Reinvestment Plan and employee purchases of company stock through 401(k) plans is not anticipated.

Capital allocation is a subject AEP's management takes very seriously. The executive management team works year-round with our operating company presidents and business unit leaders to focus on getting capital to work where customers want it, where regulators support it and where we have attractive returns and reduced lag in cost recovery. Based on the above criteria, we are moving capital dollars into transmission, nuclear and the regulated environmental component of generation, and this capital investment underpins our earnings growth forecast.

2013 AEP Operating Company* Projected Construction Investments (\$ in	thousands)
Company	Total
Appalachian Power (APCo)	\$370,000
Indiana Michigan Power (I&M)	\$484,000
Ohio Power	\$617,000
Public Service Company of Oklahoma (PSO)	\$295,000
Southwestern Electric Power (SWEPCo)	\$398,000
* SEC registrants	

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AEP Capital Investments (\$ in m	illions)	
	2012 Actual	
Environmental Generation	\$235	\$530
New Generation	\$226	\$27
Nuclear Generation	\$180	\$256
Base Fossil & Hydro Generation	\$326	\$358
Transmission	\$522	\$573
Distribution	\$963	\$1,008
Corporate	\$105	\$83
Total Utility Operations	\$2,557	\$2,835
AEP Transco	\$406	\$693
Transmission JV Equity Contribu	tions \$99	\$54
AEP River Operations & Other Non-Utility	\$32	\$9
Total Capital & Equity Contributions	\$3,094	\$3,591

Excludes AFUDC debt & equity and cash flow adjustments; includes joint venture (JV) equity contributions.

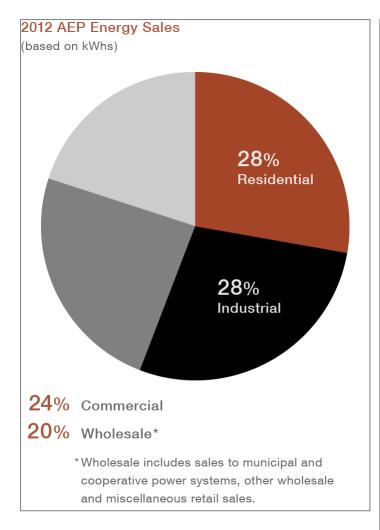
Comparison of Five-Year Cumulative Total Return*

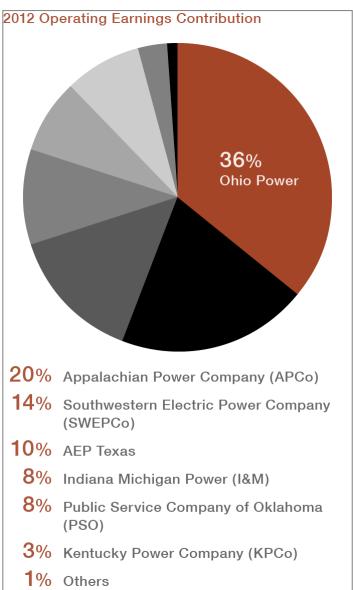
Among American Electric Power Co., Inc., The S&P 500 Index and The S&P Electric Utilities Index

Date	AEP	S&P 500	S&P Electric Utilities
Dec. 2008	\$75	\$63	\$74
Dec. 2009	\$82	\$80	\$77
Dec. 2010	\$89	\$92	\$79
Dec. 2011	\$108	\$94	\$96
Dec. 2012	\$117	\$109	\$95

^{* \$100} invested on 12/31/07 in stock or index, including reinvestment of dividends.

Fiscal year ending Dec. 31.





AEP was named to the Target Rock Advisors 2013 Sustainable Utility Leaders Index (SULI), which is a



stock index for guiding sustainable and socially responsible investment decisions. The Index also recognizes the work of utilities that have excelled at socially responsible corporate citizenship. AEP was one of 24 utilities named to the SULI.

Energy Reliability and Security



The U.S. electric grid is a sophisticated, interconnected network of components that work in unison to provide a reliable power supply. When one part of the system isn't functioning optimally, a loss of power can occur. When that happens, no matter the reason, customers expect their service to be restored quickly. If it isn't, the result may have political, regulatory, economic and social ramifications for our customers and communities that can hurt AEP far more than the damage to the electrical system itself.

Total AEP System Overhead Circuit Miles			
	Transmission & Distribution	765 kV Lines	
Appalachian Power	52,307	734	
Indiana Michigan Power	21,985	615	
Kingsport Power	1,360	-	
Kentucky Power	11,140	258	
Ohio Power*	46,417	509	
Public Service of Oklahoma	21,021	-	
Southwestern Electric Power	27,238	-	
Texas Central Co.	29,326	-	
Texas North Co.	17,171	-	
Wheeling Power	1,739	-	
Total AEP System	**229,705	2,116	
* Includes 766 miles of 345,000 –	volt jointly owne	d lines.	
** Includes 73 miles of overhead transmission lines not identified with an operating company.			

Reliability refers to our ability to provide energy upon demand. We must prevent outages to the extent we can and restore power as safely and efficiently as we can when it does go out. Security refers to our capacity to protect the supply of energy, under any circumstance, from external and internal interruptions. Our ability to secure energy and deliver power reliably hinges on a variety of regulatory, economic, environmental and social factors.

Operating and maintaining the grid is more complex than ever. We face many challenges affecting our ability to maintain the existing system while also upgrading that system to meet future demands. Among these challenges are

the aging of the current system, the threat of external interruption, the need for greater capacity, the difficulty of siting new facilities, new and pending environmental regulations, and covering the cost of needed investments.

System Reliability

Parts of AEP's service territory sustained historic damage in 2012 due to severe weather. The two most significant weather events were the June 29 <u>derecho</u> and "Super Storm Sandy" in late

October. The <u>derecho</u> was part of a fast-moving thunderstorm system that crossed the Ohio Valley and Eastern United States with heavy rain, hail, average wind speeds of 60 mph and gusts up to 80 to 100 mph – the same as a Category 2 hurricane. Only there was no warning as there is with hurricanes.

With power knocked out on AEP's system to more than 1.4 million customers of AEP's 5.3 million customers at the peak of the outage, governors in Ohio, Virginia and West Virginia declared states of emergency. <u>AEP Ohio</u> was hardest hit by outages with more than 738,700 customers without power at the peak – nearly 50 percent of the company's entire retail customer base. More than 400 transmission towers were damaged in Ohio alone. <u>APCo</u> experienced an estimated 570,000 customers without power at the peak, <u>I&M</u> lost an estimated 118,000 customers and <u>KPCo</u> lost an estimated 64,000 customers.



The June 29 derecho knocked out power to more than 1.4 million customers of AEP's 3.5 million customers at the peak out the outage.

Neighboring states were also hit hard with extensive outages by this storm, making it necessary to pull restoration crews from greater distances than normal. This added to the challenge of quickly restoring power because it took those crews longer to arrive where we needed them. Another challenge we faced came from the extreme heat that affected the area. Safety of our crews during outages is of paramount importance to us. The heat made it more difficult and resulted in some cases of heat exhaustion and dehydration of crew members. Restoration of service took more than a week in some areas as new storms swept through the region nearly every day, causing additional outages and limiting crews' ability to work safely. In some cases, restoration took even longer because of the remoteness or extent of the damaged equipment. APCo estimated the storm caused approximately \$37 million in damage. AEP Ohio's damage tally from the derecho and subsequent storms was an estimated \$61.8 million. By comparison, the remnants of Hurricane Ike in 2008 led to \$30 million in maintenance costs in Ohio. We are seeking recovery of these costs from our state regulatory agencies.

"As (Super Storm) Sandy has showed, long periods without electricity affect every aspect of our society from business to health to personal lives. We are

dependent on reliable and affordable electricity. Cell phones and iPads don't work if batteries cannot be recharged." - AEP Stakeholder

Our communication with customers during the derecho took on a new dimension because of the growing use of social media venues such as <u>Twitter</u>, <u>YouTube</u> and <u>Facebook</u>. We more quickly became aware of customer problems and perceptions, and we adapted our response plan accordingly. A major element of that plan is our "one voice" communication strategy, whereby we make sure messages conveyed to those outside AEP – regulators, community leaders, customers, the general public and other stakeholders – are uniform and consistent.



AEP's most notable assistance was that provided in the wake of Super Storm Sandy.

In addition to the derecho and Super Storm Sandy, KPCo was also adversely impacted by two other major storms. In February, more than 34,000 customers – roughly 20 percent of the company's customers – lost power as a result of a snow storm that dumped more than 12 inches of wet, heavy snow across the company's service area. A few weeks later, in March, the company's service area received national attention when an unprecedented number of tornadoes tore across Johnson, Lawrence, Magoffin and Martin counties in eastern Kentucky, devastating the towns of West Liberty and Salyersville and causing more than 14,000 customers to lose power. In both cases, despite widespread damage, KPCo mobilized to restore power completely in less than seven days.

When weather events result in significant widespread outages, utilities seek help from other utility companies and contractors. This practice of mutual assistance, which dates to the 1950s, helps companies in our industry mitigate risks and costs associated with major power interruptions by sharing resources. The utilities that seek assistance pay the costs of peer companies and contractors that provide labor and equipment.

During 2012, AEP received assistance from utilities around the country to restore power to our customers, but we also provided assistance to other utilities that needed our help. AEP's most notable assistance was that provided in the wake of Super Storm Sandy. While power was being restored to more than 200,000 customers of APCo and KPCo, AEP and contract crews also assisted utilities in the Northeast. In fact, about half of all AEP employee and contract line

resources were dedicated to helping other utilities recover from Sandy's devastating effects. The Edison Electric Institute honored AEP with its Emergency Recovery Award for the derecho and an Emergency Assistance Award for the aid we provided to other utilities in the wake of Super Storm Sandy.

In light of recent severe storm events, our industry is considering new ways of thinking about grid infrastructure and its resilience, as the risks associated with such events can affect financial health, customer satisfaction and our reputation. There is an industry-wide effort under way, in collaboration with other organizations, to research ways to make the grid better able to withstand extreme weather events, so that less focus is needed on restoration after major damage occurs.

Measuring and Maintaining Reliability

We use several measures to track our transmission and distribution reliability performance. The System Average Interruption Duration Index (SAIDI) measures how many minutes the average customer experiences an interruption in their electric service in a given year. During 2012, the AEP System SAIDI was 193 minutes, a 15 percent improvement from 2011, when it was 228. While 2012 presented its share of challenges with the derecho and Super Storm Sandy, the

Annual AEP Systemwide Reliability Indices			
	2010	2011	2012
SAIFI 1	1.315	1.477	1.317
SAIDI ²	185.4	227.9	193.0
CAIDI ³	141.0	154.3	146.6

System Average Interruption Frequency Index is the average number of interruptions a customer experiences annually.

number of smaller weather-related outage events declined significantly.

Another reliability performance metric, the System Average Interruption
Frequency Index (SAIFI), represents the number of interruptions the average customer experiences in a year. During 2012, the AEP system's SAIFI was 1.317, an 11 percent improvement over the previous year and the second best annual performance the AEP system has achieved during the past 7 years.

A third industry-wide reliability metric, the Customer Average Interruption Duration Index (CAIDI), represents the

average length of time it takes to restore service when an average outage occurs. AEP's 2012 CAIDI was 146.6 minutes, a 5 percent improvement over 2011. While 2012 performance improved, AEP's CAIDI has slowly trended unfavorably over the past several years, reflecting a long-term rise in the length of time it takes to respond to the average outage. This is due to a

² System Average Interruption Duration Index represents the total minutes of interruption the average customer experiences annually.

³ Customer Average Interruption Duration Index is the average length of time it takes to restore service when an outage occurs.

combination of factors, including a favorable reduction in the number of shorter duration outages that historically affected larger counts of customers that skew the metric upward (and subsequently resulted in an improvement in SAIDI and SAIFI). It is also due to an increase in non-major storm events combined with fewer internal resources available to respond. Vegetation management and equipment failure remain the most significant challenges to AEP's service reliability.

Right-Of-Way Management

Managing vegetation on our rights-of-way (ROW) is a key element to maintaining our transmission and distribution system reliability. Typical industry practice is to manage the trees and vegetation around power lines cyclically. Maintaining a regular tree-trimming cycle is costly and directly affects customers' electric bills. During the past four years, AEP has spent about \$860 million on vegetation management. In 2012, AEP spent \$214 million, which is consistent with the previous four-year average. The issue of reliability has prompted several states to consider or implement more rigorous tree trimming cycles.

For transmission ROW management, there is additional focus on transmission above 200 kV and other critical facilities to meet North American Electric Reliability Corporation (NERC) reliability compliance standards. AEP has adopted an integrated vegetation management program that is reviewed annually to ensure compliance with these standards. This program includes a sustainable approach to ROW management that allows certain species of vegetation to grow in the ROW, and stipulates the practices we employ meet NERC standards.



In 2012, AEP spent \$214 million on vegetation management, which is a key element to maintaining our transmission and distribution system reliability.

Fostering a Culture For Reliability Compliance

Overheated transmission lines, inadequate vegetation management, insufficient equipment and lack of training were root causes of the 2003 Northeast blackout that left 55 million people in the dark in the United States and Canada and slammed the brakes on international travel and financial markets. Since then, the North American Electric Reliability Corporation (NERC) has been authorized by the Federal Energy Regulatory Commission (FERC) to enact and enforce rules protecting the U.S. bulk power system. These rules and standards are constantly evolving, and they affect virtually everything we do in operating the grid day to day.

The reliability standards require us to document every process and procedure considered critical to bulk electricity system reliability. We also must demonstrate a strong culture of compliance, including the ability to readily access these documents, which compliance enforcement authorities use as key pieces of evidence during audits. Noncompliance with reliability standards can lead to serious financial consequences as well as reputational risk.

In June 2012, NERC completed an audit of AEP's compliance with FERC Order 693 reliability standards. This audit was the largest of the year's four NERC audits. Our employees spent nearly a year preparing for the audit; more than 100 employees received training that incorporated techniques similar to those we use to prepare for state regulatory commission hearings. This level of preparation is an ongoing process that helps to heighten compliance understanding and awareness. Later in 2012, we participated in three more audits – the Texas Reliability Entity (TRE) Critical Infrastructure Protection (CIP) audit of Electric Transmission Texas, the TRE Transmission Operations audit of AEP and the AEP Energy audit.

Overall, our performance in the 2012 audits was good. The positive outcomes were the result of significant efforts by many dedicated resources across the company to improve our compliance culture and to identify and then address compliance issues as they arise. We engage employees at all levels of the company by:

- Establishing centralized coordination of the program by executive and management governing committees
- Providing ongoing education to all employees
- Establishing working groups to develop and implement improvements in areas that need attention

We expect future audits to be more forward-looking and focused on the standards that present the greatest risk to the bulk power system.

Transmission Remains Priority

The need for a robust transmission system in the United States is as important as ever. Recent historic changes in the transmission industry are presenting opportunities for AEP's transmission business to become a key earnings driver for the company, and to be a leader in developing a modern national transmission system for the 21st century. And by doing so, we will deliver more reliable service to our customers.

AEP Transmission Holding Company, LLC, is the holding company for our state-based Transmission Companies (Transcos) and our joint ventures. A linchpin of our transmission strategy is the investments we are making through our Transcos to support regional expansion and local grid reliability. We have Transcos that have been approved in Indiana, Ohio, and West Virginia and have conditional approval to operate in Virginia. We also operate Transcos in Michigan and Oklahoma. Applications for additional Transcos are pending in Kentucky, Louisiana and Arkansas. The Transcos can raise capital separately and are able to build new transmission without affecting the balance sheet or credit ratings of the operating companies to support these investments.

Read more about our transmission business and strategy in Opportunities & Risks.

Nuclear Reliability

Our <u>Donald C. Cook Nuclear Plant</u> in Bridgman, Mich., set a new internal record for the length of time its 1,100 MW Unit 1 ran continuously following its 23rd refueling outage on Oct. 26, 2011. On Friday, Feb. 8, 2013 the unit broke the previous consecutive run record of 471 days, set



Michigan Power Company's (I&M) customers.

in 1994. Cook provides low-cost, emissions-free electricity to AEP's eastern companies.

AEP's 2,100-MW Donald C. Cook Nuclear Plant in Bridgman, Mich., provides low-cost, emission-free electricity to Indiana

Environmental Performance & Compliance



Compliance is the foundation of our environmental efforts. We are required to comply with hundreds of state and federal regulations at all of our locations, ranging from coal pile storm water runoff to hazardous chemical handling and air emissions from our stacks. Environmental agency inspectors often make unannounced visits to our sites to monitor our compliance with a wide range of complex regulatory requirements, permit limits and recordkeeping and reporting obligations. In 2012, there were approximately 180 inspections by regulatory agencies in which physical structures, procedures and recordkeeping practices were examined.

Our overall compliance record is very good. We strive for zero formal environmental enforcement actions, but received two in 2012. Both have been addressed.

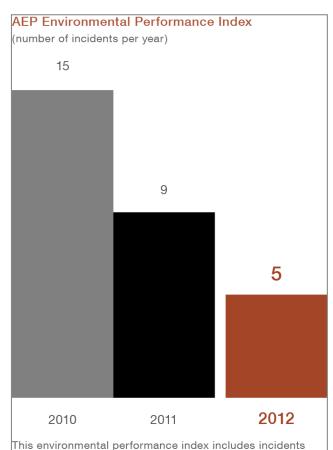
One enforcement action involved demolition of a coal conveyor without an approved storm water pollution prevention permit at a property managed by AEP Kentucky Coal. A \$3,390 penalty was assessed and corrective actions were implemented. A second event stemmed from surface drainage and sediment control issues identified during a Louisiana agency inspection at Dolet Hills Lignite Company. A fine of \$3,500 was proposed. The issues have been addressed, and discussions with the agency toward final resolution continue.

We maintain a voluntary internal Environmental Performance Index for our generation business, for which we set annual compliance targets that are tied to compensation. We recorded five incidents in 2012, our best performance since we began tracking it in 2003.

Checks & Balances

One way we seek continual improvement in environmental performance is the use of a formal, integrated environmental, safety and health (ES&H) management system. Based on the success we achieved in our fossil and hydro generating plants and construction projects, we are expanding the initiative to reach mining operations, coal transfer facilities and river operations.

We annually conduct internal audits of our environmental management systems and compliance processes. Environmental programs were audited at 18 locations during 2012. Generally, the audits confirmed that environmental management programs are in place and effectively achieving compliance objectives. Audits are beginning to move beyond simple compliance objectives to target risks and controls, assuring that procedures are functioning effectively. For



for opacity, National Pollutants Discharge Elimination System

permits and oil and chemical spills at our power plants.

It does not include formal significant enforcement actions.

example, the Spill Prevention, Control & Countermeasure (SPCC) audit in Transmission was aimed at determining whether existing procedures were effectively assuring that SPCC plans were being updated in a timely manner for new or changed facilities. Enhancements to training and notification processes occurred as a result. The effectiveness of these changes in assuring that the plans are updated and implemented is being assessed.

Coal's Changing Role

Coal has long been one of the lowest-cost fuels to produce electricity in the United States. Not only has coal provided consumers with reliable, affordable power, it has also spurred economic growth in areas where it is plentiful. Most coal-fired plants are located in coal-producing regions and are important sources of jobs and economic stability.

But the economics of coal-fired generation are changing. Compliance with new environmental regulations will be costly. Nearly 11,000 MW of AEP's generating capacity will need new or enhanced environmental controls or to be refueled with natural gas by the middle of this decade. Another approximately 5,500 MW of coal-fired units will be retired before or during 2016. <u>Also see</u> our fleet transformation plan.



Tanners Creek Plant, located in Lawrenceburg, Indiana, is expected to retire Units 1-3 by the end of 2016 as part of AEP's transformation plan.

Environmental Regulations

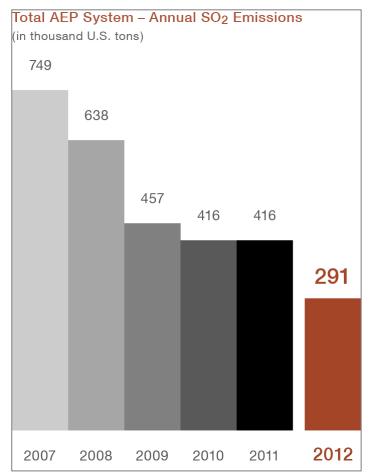
The increasing scope and stringency of environmental regulations continues to pose technical and financial challenges to the electric utility industry. These challenges are driving decisions to upgrade or retire existing coal-fired generating units, and are strongly influencing the planning of new generation projects. Accordingly, transmission infrastructure must be updated and expanded to allow access to new generation resources and to maintain overall reliability of the system. Given the number of existing regulations to be implemented and the expected likelihood of additional new requirements in the coming years, environmental issues will continue to have a major impact on the planning and operation of our system.

Air Regulations

The U.S. Environmental Protection Agency (EPA) has finalized a number of new regulatory programs in recent years that are focused on reducing air emissions from fossil fuel-fired generating units. These rules are driving the electric utility industry, including AEP, to retire, refuel and retrofit many existing coal plants.

MATS

The most stringent of these programs is the Mercury and Air Toxics Standards (MATS) rule, which was finalized in 2012. MATS established unit-specific emission requirements for mercury, metals and acid gases. April 2015 is the first compliance date, although there are options to extend the deadline for certain units that are in the process of installing emission controls or whose shutdown could lead to a transmission reliability concern. Our compliance strategy includes installation of emission control systems, unit retirements and possible conversion of some coal units to natural gas. Implementation of the strategy is under way with permitting and regulatory reviews and engineering and design work.



Grid reliability continues to be a concern due to the timing of the MATS rule and the number of compliance-driven unit retirements and retrofit projects occurring at AEP and across the industry. We continue to proactively provide leadership in the ongoing dialogue to ensure that MATS compliance strategies balance the need to maintain grid reliability requirements. These efforts require close coordination with state utility commissions and environmental agencies, the EPA, regional transmission organizations, FERC and NERC.

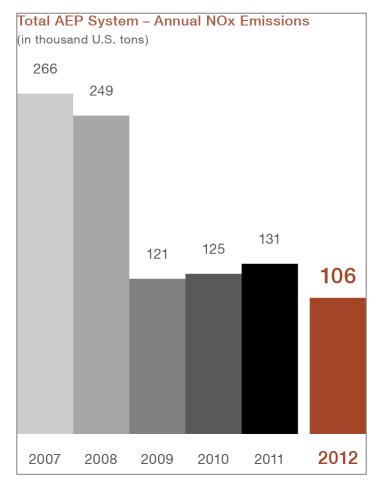
CSAPR

Ongoing developments continue on EPA's efforts to reduce the interstate transport of sulfur dioxide (SO₂) and nitrogen oxides (NOx) across the eastern half of the country. In 2005, EPA finalized the Clean Air Interstate Rule

(CAIR), which was overturned in 2008 by the D.C. Circuit Court of Appeals, but was allowed to remain in place until an alternative rule was developed. In 2011, EPA finalized the Cross State Air Pollution Rule (CSAPR) as a replacement for CAIR. However, CSAPR was vacated by the D.C. Circuit Court in August 2012. The EPA and the Department of Justice requested a rehearing, but the court denied the request. Pending additional court or agency action, CAIR requirements remain in place.

NAAQS

The Clean Air Act requires the EPA to review and, as necessary, revise National Ambient Air Quality Standards (NAAQS). Several NAAQS have been recently revised or are under review that could lead to additional emission reduction requirements in the future. Revised NAAQS include those for SO₂ and NOx (revised in 2010) and fine particulate matter (revised in 2012). Revised ozone NAAQS are expected to be proposed in 2013.



Regional Haze

The EPA's Regional Haze regulation is designed to protect visibility in specially designated areas, such as national parks. In 2012, AEP's Public Service Company of Oklahoma (PSO) entered into an agreement with the EPA, the State of Oklahoma, and other parties to reduce emissions from the company's Northeastern Station to comply with the rule. The agreement will result in the installation of emission controls at one unit and the retirement of another unit at the plant, pending regulatory approval.

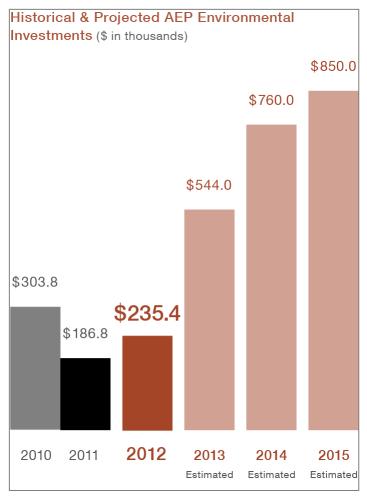
NSPS

The EPA continues to move forward with a regulatory approach for reducing greenhouse gas (GHG) emissions from power plant sources. In 2012 the agency proposed New Source

Performance Standards (NSPS) for new fossil fuel-based power plants. The EPA is expected to finalize these standards, although the schedule for a final rule is uncertain. Separate guidelines from the EPA for reducing GHGs from existing fossil fuel power plants are expected to be proposed, but the agency has not announced a schedule.

Fleet Transformation Plan

AEP's generating fleet transformation plan is being driven by changing environmental regulations, changing fuel supply opportunities and changing customer demand. As the operating environment has evolved, so has our plan to address these issues. By investigating more cost-effective alternative compliance options, we have reduced by \$1 billion to \$2 billion our original estimated cost of compliance with regulations. Our plan is designed to meet the needs of our customers, maintain the reliability of the grid, diversify our fuel portfolio and comply with new regulations. By reducing our estimated capital investment for environmental compliance, we are able to divert resources to other growth areas of the company.



We reviewed options for every affected coal unit, which led to our ability to lower our original estimated cost to comply. The solutions we are pursuing are cost-effective. For example, our current plan to transfer a 50 percent interest in the Mitchell Generating Station will allow for the retirement of the 800-MW Unit 2 of KPCo's Big Sandy Plant in 2015, the same year that the 278-MW Unit 1 is scheduled to be retired as a coal-fired generator. A future option for Unit 1 may be to burn natural gas; however, a final decision has not been made. Originally, we had planned to install environmental controls on Big Sandy Unit 2, but after further review of emerging options (such as the availability of the Mitchell Units) we decided to pursue the Mitchell plant transfer, which will have a lesser rate impact on customers.

Our transformation plan will result in carbon dioxide reductions from the existing coal fleet, as natural gas and renewables account for a larger portion of our fuel mix and as we retire coal units. In addition, we are continually seeking opportunities to improve the overall efficiency of generating units. Higher unit efficiencies will lead to reduced CO₂ emissions on a normalized output basis.

At this time, we expect to retire approximately 5,500 MW of generation by the end of 2016. In addition, we plan to either install or upgrade emissions control systems, or complete natural gas conversions, on nearly 11,000 MW of capacity between now and 2020. In 2012, we retired approximately 615 MW of coal generation. We estimate the total cost of meeting current, pending and proposed environmental requirements at \$4 billion to \$5 billion from 2012 through 2020 – on top of the \$7 billion spent on compliance since 1990. This does not include the cost to operate and maintain the units once the controls are installed, or future costs of building additional replacement generation and incremental fuel cost increases.

A number of factors have contributed to significant reductions in AEP's SO₂, NOx and mercury emissions. Since 1990, SO₂ and NOx emissions have each been reduced by about 80 percent while mercury emissions have declined by nearly 60 percent since 2001. Among the factors that

led to decreased emissions include the installation of controls, such as scrubbers and SCRs, on coal units that also remove mercury; the installation of activated carbon injection at the Rockport Plant in Indiana, specifically to reduce mercury; changes in the types of coal we used during that time; retirement of coal units; and reduced overall generation from coal plants due to economic conditions and low natural gas prices. Mercury emissions information is reported to the EPA under the <u>Toxics Release Inventory program</u>.

Customers who saw their electricity bills increase in the past decade to pay for environmental regulations face additional rate increases resulting from AEP's actions to comply with the new regulations. The effect will be felt the most in our eastern service territory. Regulators and customers have become increasingly vocal in their resistance to additional rate increases. We continue to work closely with our operating companies, regulators, communities and individual customers to address their concerns and to assure that decisions are made collaboratively.

Planned AEP Generating Unit Retireme	ents (in MWs)		
Company	Plant Name & Unit	State	Generating Capacity
Appalachian Power	Clinch River Plant Unit 3	Virginia	235
Appalachian Power	Glen Lyn Plant	Virginia	335
Appalachian Power	Kanawha River Plant	West Virginia	400
Appalachian Power/Ohio Power	Philip Sporn Plant Units 1-4	West Virginia	600
Indiana Michigan Power	Tanners Creek Plant Units 1-3	Indiana	495
Kentucky Power	Big Sandy Plant Unit 2	Kentucky	800
Ohio Power	Beckjord Generating Station	Ohio	53
Ohio Power	Kammer Plant	West Virginia	630
Ohio Power	Muskingum River Plant Units 1-4	Ohio	840
Ohio Power	Picway Plant	Ohio	100
Public Service Company of Oklahoma	Northeastern Station Unit 4	Oklahoma	465
Southwestern Electric Power Company	Welsh Plant Unit 2	Texas	528
TOTAL			5,481

New Source Review

In 2007 AEP entered into a court-approved settlement of <u>New Source Review (NSR) litigation</u>. The original consent decree had specified that AEP would install flue gas desulfurization (FGD) systems on the Rockport units, Big Sandy Unit 2 and Muskingum River Unit 5.

On Feb. 22, 2013, AEP and other parties to the Consent Decree filed a proposed modification to the decree with the U.S. District Court for the Southern District of Ohio, Eastern Division. The modification would lower a system wide sulfur dioxide (SO₂) emission cap for AEP plants that

becomes increasingly stringent through 2029. The modification also gives us more flexibility in how we meet these requirements.

Under the new agreement, AEP will:

- Install lower-cost dry sorbent injection (DSI) technology for SO₂ emission reduction at both units of Rockport Plant in Indiana and achieve SO₂ emission reductions sooner than required under the consent decree. Other highlights of the pending agreement are:
- Retire or refuel with natural gas Tanners Creek Unit 4 in Indiana
- Have the option of retiring or refueling with natural gas Big Sandy Unit 2 in Kentucky
- Have the option to retire or refuel with natural gas Muskingum River Unit 5 in Ohio. Read more about this modification on <u>AEP.com</u>.

NSR Consent Decree Annual Report Archive (PDF)

- 2008 NSR Annual Report
- 2009 NSR Annual Report
- 2010 NSR Annual Report
- 2011 NSR Annual Report
- 2012 NSR Annual Report

Coal Ash

The <u>EPA</u> proposed a rule in 2010 to regulate coal ash and other coal combustion products (CCPs) as either special wastes under the hazardous waste portion of the Resource Conservation Recovery Act, or as a solid waste. AEP favors the solid waste rule pathway.

State agencies, AEP, and other coal users and consumers of products that use coal ash as a basic ingredient for other products objected to the Special Waste classification. They pointed to the enormous cost of disposal, the potential liability attached to products that use coal ash as an ingredient, and existing regulations that could achieve the same results at much lower cost. A final rule was originally anticipated in 2012 but is now expected in late 2013 or later, depending on the outcome of a suit filed by environmental activists and how the EPA addresses the comments it has received on the proposed rule.

In 2012, AEP generated about 8.5 million tons of coal combustion products (CCPs) and was able to beneficially reuse more than 3 million tons, or more than 36 percent. Beneficial reuse of CCPs avoided more than \$16.7 million in disposal costs in 2012 and generated another \$9.6 million in revenues.

2012 AEP Coal Combustion Products	s (CCP)
Utilization Summary	
Total CCP Produced (tons)	8,483,999
CCP Donated (tons)	106,636
CCP Used Internally (tons)	1,588,433
CCP Sold (tons)	1,385,670
CCP Utilized (tons)	3,080,738
Total CCP Avoided Cost	\$16,713,561
Total CCP Revenues	\$9,626,959
Total Worth	\$26,340,520
Percent Total Utilization Based on Total Production	36.31%
Includes fly ash, bottom ash, boiler slag, FG and gypsum.	D material

If the EPA regulates CCPs as a hazardous waste, those revenues and avoided costs likely will disappear and CCP management costs will rise dramatically. Our position is that coal ash can be handled safely and at much less cost without a hazardous waste designation. Labeling this useful product a hazardous waste surely will curtail its use in products such as concrete, gypsum, construction fill and asphalt. It will also overwhelm the nation's designated hazardous waste disposal sites and cost billions of dollars annually.

Water Resources



Water is vital to producing electricity. It is critical to the operation of most power generating facilities, particularly steam electric facilities. Besides cooling, water is used for bottom ash and fly ash transport, cleaning, low volume waste transport, and in the boilers themselves.

Water quality, availability, use and management are important issues to our industry, which is facing new rules related to the Clean Water Act. We are also taking measures to reduce our water consumption, improve our water quality and address water availability issues in the context of existing programs and with the expectation of new requirements in the future.

The rules that are pending include those for cooling water intake systems, known as 316(b) standards, and those that regulate wastewater discharge, known as Steam Electric Effluent Guidelines. The <u>EPA</u> is expected to finalize the 316(b) rule in 2013 and the Effluent Guidelines rule in 2014.

The new 316(b) standards are designed to protect fish and other aquatic organisms that come into contact with water intakes (more specifically, the screens that protect these systems from debris). Impingement occurs when aquatic organisms are drawn against an intake screen by the water

current. Entrainment occurs when small fish, eggs or larvae are drawn into the cooling water system through the screen openings and are affected by heat, chemicals or physical stress.

We own and operate 31 power plants that could be affected by the proposed 316(b) rule. Solutions may likely include the retrofit of intake screen systems to reduce the impingement of fish and other aquatic organisms. EPA's approach for entrainment makes it difficult at this time to predict if any additional modifications will be necessary.

The EPA recognized that its' most expensive solution – cooling towers – would not be appropriate in many cases and said that it would consider alternatives based on each site. We support this approach.

Adopting cooling towers would be very problematic at our western coal plants, which operate in regions prone to prolonged droughts. In fact, these plants already use a closed-loop cooling system, where the reservoirs at the plants were built specifically to hold and recirculate the water used for cooling. Cooling towers also reduce plant efficiency.

Part of the Clean Water Act sets national treatment standards for wastewater discharges from steam electric generating facilities, and the EPA is expected to propose changes to them in April 2013. This rule would revise the existing, and add new, national standards for the treatment of power plant wastewaters. We are already starting to consider the possible impact this could have as we move from wet to dry handling of coal fly ash. In line with the current treatment standards, many of our coal ash ponds provide treatment of the ash wastewater from the plant, as well as many other waste streams. If the ash ponds are eliminated, the remaining waste streams from the plants would still need to be treated, but the technologies to do that could cost as much as \$1 billion for the entire AEP fleet of coal-fired power plants.

Because it is so important to understand what will happen to various pollutants as they move through different processes and ponds at a power plant, we are expanding our use of a computer model to help us make these complex assessments. A great deal of information, such as the type of coal burned, the boiler type, the chemistry of the water, the size of the treatment ponds, the chemical properties of various pollutants, chemical reactions, weather conditions, etc., is entered into this model. It helps us to predict how changes to the plant will affect the different waste streams.

For example, the model will permit us to better estimate how adding a new scrubber or eliminating an ash pond will affect the wastewater produced by the plant. The model will also be used to help with water recycling decisions and to determine if water reuse will affect the final wastewater output or any intermediate water treatment steps through the different processes. The model was developed for the Mitchell Plant in West Virginia and will be tailored for site-specific conditions at other power plants. The model will also help us to ensure that changes to water management within the plant not only meet national effluent guidelines, but also do not create

unexpected consequences or prevent us from meeting local water quality standards. The information generated by this effort will prove useful as we retrofit coal units in the coming years.

In August 2012, representatives from Ohio, Indiana and Kentucky signed the world's largest interstate water quality trading plan. The agreement marks the first time states have joined together to approve such a program and AEP was one of the first utilities in the nation to participate. AEP began working with the <u>Electric Power Research Institute</u> (EPRI) and other partners in 2011 on a market-based approach to improve water quality in the Ohio River.

Drought Effects

A drought in 2012 created low water challenges for the boats and barges of AEP's River Operations that deliver coal to our power plants and other commodities to manufacturers on the inland waterways and for export through the Gulf. According to the National Oceanic and Atmospheric Administration (NOAA), July 2012 was the hottest month on record in the continental United States. Along with record heat, the drought covered 61 percent of the 48 contiguous states, according to NOAA's Drought Monitor. The Midwest reached near-record drought conditions, where three-quarters of the nation's soybean and corn crops are grown.

Low water levels have especially been an issue on the Mississippi River. About 500 million tons of cargo, such as coal, grain and fertilizer, move up and down the river each year. Low water levels due to the drought affected navigation in some locations on the lower part of the Mississippi River, causing some vessels to run aground. <u>AEP's River Operations</u> business operates more than 3,000 barges, 60 towboats and 25 harbor boats on the nation's inland waterways delivering cargo. But the low water levels in 2012 hampered that business and contributed to a decline in earnings compared with 2011.

The drought also affected operations on AEP's hydroelectric facilities in 2012. Reservoir levels at Smith Mountain Pumped Storage Project in Virginia were approximately four feet below normal, requiring modifications to the water flows discharged from the plant. Following the dry summer, this winter's wet weather created the opposite effect -- high water levels in early 2013 at the facility. The water levels rose so quickly and with such force that it washed clean the riverbanks of tributaries that feed Smith Mountain Lake. APCo has removed more than 1 million pounds of debris from the navigational channels on the lake, as required by the plant's license. Learn more about Smith Mountain's Debris Management Plan and about the plant's shoreline management plan.

Managing Waste

We manage many different types of waste that are created by the business of generating electricity, operating office buildings, and repairing and replacing equipment in the field. We believe our record of managing waste is very good. We continue to make progress reducing waste and diverting waste away from landfills either through beneficial reuse or recycling.

We are also making headway in reducing the amount of PCB-containing equipment used across the company. PCBs haven't been used in new electrical equipment for more than 30 years but are present in many of our older transformers and other pieces of dielectric material-filled electrical equipment. We removed and recycled approximately 44,000 pieces of electrical equipment in 2012; approximately 0.7 percent of these items were found to contain greater than 500 parts per million of PCBs.

In 2012, the number of transmission and distribution equipment spills increased to approximately 2,080. This increase was due in large part to the greater number and severity of storms that caused damage to our equipment. The number of spills containing PCB concentrations of 50 ppm or greater also increased. This was due to the larger number of spills that occurred overall but also due to a change in the method for reporting this category, which now includes spills from equipment assumed to contain 50 ppm of PCBs or greater. Each of the spills was cleaned up in accordance with all applicable regulatory standards.

AEP Waste Stream 2010-2012			
Measurement	2010	2011	2012
Hazardous Waste Generated (lbs)	1,535,336	2,639,251	1,729,607
Hazardous Waste Disposed (lbs)	1,524,675	2,607,762	1,717,755
Hazardous Waste Recycled (lbs)	10,661	31,489	11,852
Paper Recycled (lbs)	1,965,389	1,233,816	2,400,642
Metal Recycled (lbs)	77,286,081	35,158,825	1,798,375
_ight Bulbs Recycled (lbs)	211,945	215,730	169,129
Batteries/Lead Recycled (Ibs)	429,932	287,721	260,678
Electronic Equipment Recycled (Ibs)	192,880	205,102	251,250
Dil Recycled (gallons)	1,016,306	1,230,104	1,386,174
Beneficially Reused CCP (tons)	3,200,146	2,943,736	3,080,738
Parts Washer Solvent Recycled (gallons)	33,778	39,643	22,089
Dily Water Cleaned & Recycled (gallons)	94,047	324,087	144,665
	18,604	22,170	7,411

Does not include \$11 million worth of scrap metal sold by Asset Recovery.

The EPA continues to move forward on developing a proposal that may mandate the phasing out of various levels of PCB-containing equipment. The rule potentially could be quite costly due to the amount of equipment affected and the expense of identifying and replacing it.

Nuclear Waste

The federal government is responsible for the permanent disposal of spent nuclear fuel and assesses fees to plant owners for this disposal. But the federal government has stopped development of the Yucca Mountain storage facility in Nevada, leaving the issue unresolved.

Leaving the issue unresolved.

Donald C. Cook Nuclear Plant in Michigan.

Like the rest of the nuclear industry, we have a significant future financial commitment to dispose of spent nuclear fuel. We need a national solution to this issue, which should be part of a comprehensive energy strategy.

Since 1983, I&M has been collecting a fee of one mill per kilowatt-hour for fuel consumed after April 6, 1983. In 2011, we signed a settlement agreement with the federal government that allows I&M to make annual filings to recover certain spent nuclear fuel storage costs incurred because of the government's delay in accepting it for storage.

We completed modifications to the spent nuclear fuel storage pool more than 10 years ago and in 2012 began and completed an initial loading of spent nuclear fuel into dry casks. This consisted of 12 casks containing 32 spent nuclear fuel assemblies within each cask.

By moving the 384 spent-fuel assemblies from the plant's spent-fuel pool, we will support an additional three years of dual-unit operation at full power. Without removal of the used-fuel assemblies, the spent fuel pool would reach capacity in 2014 and force us to shut down one or both units of the plant. Cask loading is scheduled for every three years going forward. The first phase of the dry-cask facility will accommodate 94 dry casks that will contain a total of 3,008



used fuel assemblies, but the facility can be enlarged incrementally as demand requires.

In 2012, we began and completed an initial loading of spent nuclear fuel into dry casks at the Cook Nuclear Plant in Michigan, which will support an additional three years of dual-unit operation at full power.

ESH Policy & Philosophy

Environment, Safety & Health Philosophy

No aspect of operations is more important than the health and safety of people. Our customers' needs are met in harmony with environmental protection.



Environment, Safety & Health Policy

AEP is committed to social responsibility and sustainability. We are proactive in our efforts to protect people and the environment by committing to:

- **M**aintain compliance with all applicable ES&H requirements while pursuing the spirit of ES&H stewardship;
- Ensure that people working for or on behalf of AEP understand and integrate ES&H responsibilities into their business functions;
- Support continual improvement of environmental performance and pollution prevention; and
- Hazard elimination through employee involvement and continual health and safety improvement.

Safety & Health



Working safely is a core value and top sustainability priority at AEP. Nothing is more important to us than the safety, health and well-being of our employees, contractors and the public. An employee culture survey in 2012 validated our belief that our safety culture is very strong. We are committed to what we call "zero harm." While much of the work in our industry can be viewed as dangerous, we do not consider injury inevitable. And we invest significant resources and time to protect our workers from harm.

We have made considerable progress in reducing the number and severity of injuries to our employees. No employee lost his or her life while on the job in 2012, an achievement that last occurred in 2010. From 2006 through 2012, there were four employee fatalities.

Aiming For Zero Harm

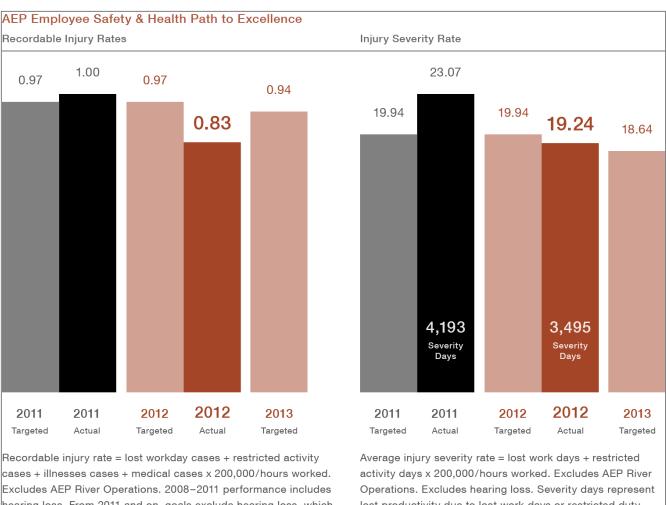
We take past performance and forward-looking actions into account in measuring our safety performance. Our employee recordable incident rate (as defined by the Occupational Safety & Health Administration) for 2012 was 0.83, the best in company history. The year-end result was better than our target for the year of 0.97 and our 2011 performance of 1.00. Our employee severity rate last year was 19.24, also better than the target of 19.94 and our 2011 performance of 23.07. Severity days (lost work days and restricted activity days due to injury) declined from 4,193 in 2011 to 3,495 in 2012, a reduction of 17 percent.

Our 2012 statistics are particularly noteworthy because of the extreme weather conditions our employees in the field faced fairly frequently, as well as the distraction of job security concerns stemming from the repositioning study. The target recordable rate is 0.94 for 2013 and the corresponding target severity rate is 18.64. By setting these goals each year, we get closer and closer to zero harm.

In 2011, we established our second five-year Path to Excellence, demonstrating our commitment to continuous safety improvement and our goal of achieving top-decile performance among our peers by 2016. Our first Path to Excellence was pegged toward attaining top-quartile performance, and we came very close to reaching our goal. Annual safety and health performance is a factor in employees' incentive compensation, reinforcing that it is key to our values and culture and underscoring employees' accountability.

Injuries that most commonly result in lost work days continue to be slips, trips, falls and being struck by objects. Overexertion events also increased in 2012, in large part because of the record or near-record heat that scorched much of our service territory in the first half of the summer. A heat safety program was developed and implemented in our Distribution business unit last summer to address these concerns.

Focusing on zero harm goes beyond trying to meet or exceed OSHA standards. Many initiatives and procedures are in place to help us be proactive. Job Hazard Assessments, our Uniform Event Analysis process and Human Performance initiative – combined with an evolving safety and health event management system to track and trend performance – have contributed to our improved performance. We are constantly seeking new ways to continually improve our performance. Today, we share details about injuries and the measures employees have taken to prevent harm across AEP. Our Significant Event Call process elevates serious events to expedite system-wide sharing, analysis and mitigation.



hearing loss. From 2011 and on, goals exclude hearing loss, which is cumulative and cannot be attributed to a given year.

lost productivity due to lost work days or restricted duty.

Pilot programs last summer in our distribution operations groups across AEP explored the use of smart phones to record and disseminate information from job site observations. This allowed our employees in the field to more quickly and easily share information with other work groups in other locations. The experience and successes gained through the pilot has led to an effort to implement and expand an electronic Job Site Observation (eJSO) process throughout distribution and transmission field areas.

Identifying potential hazards and preventing unintended events are central to reaching zero harm, but how management handles such events also is important. "Just Culture," a structured approach to how employees are treated when unintended events occur, is used to determine where management systems failed. AEP is an early adopter of this concept, which helps leaders ensure fairness, consistency and shared accountability when performing this analysis. Basically, Just Culture is the opposite of a punitive culture that focuses on finding someone to blame rather than figuring out what happened and why it happened.

Zero Harm Is Achievable

We know zero harm is achievable because various AEP locations have done it. In 2012, this list included a variety of power plants (Clinch River, Glen Lyn, Mountaineer, Sporn, Tanners Creek, Muskingum River, and most plants owned by <u>Public Service Company of Oklahoma</u> and <u>Southwestern Electric Power Company</u>) as well as operating companies.



We are committed to what we call "zero harm" - zero fatalities, zero injuries.

For PSO, 2012 was its first calendar year without any lost workday events. In fact, it was the first year in the company's 100-year history that it achieved zero harm. The magnitude of this achievement is highlighted by the intense heat of last summer, when temperatures sometimes reached 105 to 115 degrees. Work groups took special measures to ensure safety during this period; some departments adjusted schedules to allow employees to start and end their shifts earlier to avoid working during the hottest part of the day.

Other achievements across AEP included:

- Three operations managed by our Fuel, Emissions and Logistics organization completed 2012 with no recordable or severity events.
- Kentucky Power's vehicle fleet group completed 15 years without a recordable event.
- <u>Indiana Michigan Power's</u> Michigan District last November observed four injury-free years the first among all AEP operating company districts to claim this distinction.
- <u>AEP Ohio's</u> Line Department in Fremont worked over nine years without a recordable event.
- 52 AEP Transmission employees in Laredo, Texas recorded perfect performance for safety in 2012.
- Flint Creek Power Plant in Arkansas marked 2 million employee hours without a lost time accident, a safety milestone set between October 1996 and July 2012.

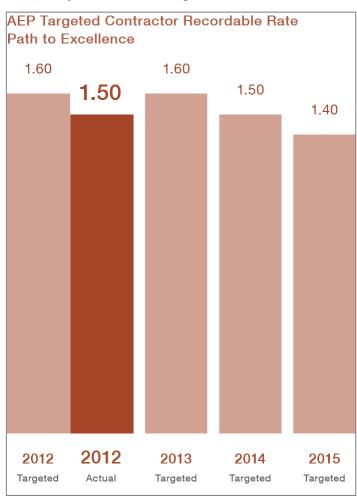
Achieving a culture where watching out for each other is second nature and employees are comfortable reporting potentially unsafe working situations is key to realizing these results.

Checks and Balances

We continue to implement and refine the management systems in our Generation business unit through the Managing Environment, Safety and Health (MESH) initiative. Several power plants now have electronic MESH manuals that link to corporate resources but also are customized to address plant-specific processes. These integrated tools are a sustainable platform for continuous improvement.



Internal audits of our safety and health management systems and compliance processes also are part of our zero harm efforts. Safety and health programs were audited at 15 locations during 2012. Although the audits verified that compliance programs are in place and functioning effectively overall, recurring audit comments in the Generation organization prompted the



formation of a team to identify and create electronic templates for repetitive tasks such as inspections and preventive maintenance. These templates can be integrated into work routines at any location to prompt task completion and help manage through operational or personnel changes. Audit comments on Fuel Emissions & Logistics (FEL) locations also led that organization to implement a review of safety programs at all FEL facilities to enhance their compliance efforts.

Contractors Are Partners In Safety

We expect our contractors to observe the same safety and health practices as our employees, and we challenge them to continuously improve. Our contractors' safety performance can affect our risk

profile and our company's reputation. Contractor safety performance was exemplary in 2012. No fatalities occurred.

In 2011, we established target OSHA recordable rates through 2015 for our major contractors performing construction, maintenance and other physical work. The 2011 target was 1.70 and a rate of 1.52 was attained, better than target. The 2012 target was 1.60 and a rate of 1.50 was achieved. The proposed target for 2013 is 1.60. Targets also have been developed for contractors serving individual organizations within AEP.

We are taking steps to instill our safety culture and values in our contractors. At <u>AEP Texas</u>, a Safety Hero program was created to recognize contractors who have gone above and beyond expectations to avoid injuries or operational errors. The program recognizes a contractor each month for safety performance. In addition, a contractor safety summit is held annually to bring AEP Texas Distribution contractors together to share success stories, lessons learned and discuss concerns. Thanks to efforts such as this, the incident rate among our Distribution line crew contractors has fallen appreciably since 2009.

Safety Recognition

Recognizing employees for exemplary safety performance is important, especially in life-threatening circumstances. The Chairman's Life Saving Award has been presented to 47 employees since the award's inception in 2004. Receiving the award in 2012 were:

- Michael Walls, a meter electrician in <u>Appalachian Power's</u> Huntington (W.Va) District who alerted sleeping family members that their front porch was ablaze and extinguished the fire:
- Mark Rickman, an <u>AEP Texas</u> service mechanic who roused a sleeping couple from their burning house; and,
- Shreveport-based <u>Southwestern Electric Power Company</u> line crew members David Behrendt, Cody Teer, Chris Janz and Victor Verzal, who assisted a disabled motorist who was having a heart attack until paramedics arrived.

The fourth annual John P. DesBarres Safety and Health Excellence Award was presented in March 2013 to the Generation business unit. The award, named for a former AEP board member, is awarded to the AEP organization that best exemplifies the attributes of a sustained "zero harm" culture. Generation received the same honor two years ago.

<u>Public Service Company of Oklahoma</u> was honored for its exemplary performance during 2012 with the AEP Utilities Safety Performance Award and the AEP Utilities Operational Performance Award.

Public Safety

Protecting the public from unsafe contact with our electrical equipment is a challenge, as we have little control over those whose work or recreational activities bring them close to our facilities – or those who choose to trespass on our property.

We launched a five-year Path to Excellence in 2008, patterned after our internal efforts, to reduce public fatalities by 20 percent and electrical contacts by 10 percent a year. We had eight public fatalities and 32 additional electrical contacts in 2012, compared with six fatalities and 35 contacts in 2011.

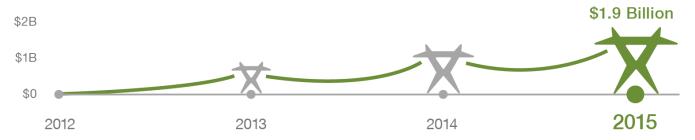
Four of the eight public fatalities and one electrical contact in 2012 resulted from attempted copper theft, which continues to be a problem in much of our service area. Our efforts to educate the public about the dangers of copper theft and other unsafe practices have intensified through use of social media outlets such as Twitter and Facebook. A new video about the risks of copper theft was made available on operating company websites in mid-2012. And our governmental affairs teams are working with their state legislators across our system to strengthen laws that could help curb the practice.

Opportunities & Risk

Leveraging Growth Opportunities

New and innovative initiatives are under way across AEP in response to emerging business opportunities. These initiatives improve system reliability and performance, result in fewer environmental impacts, lower the cost to deliver electricity to customers and reduce by half construction time of new facilities.

Transmission = Growth



AEP Transcos plan to construct nearly \$1.9 billion in additional transmission facilities through 2015.

Nowhere is the use of innovation and technology more evident than in our transmission business unit. The need for a robust transmission system in the U.S. is as important as ever. New opportunities and changes in the industry give AEP a competitive edge in developing a modern national transmission system for the 21st century.

Opportunities For Growth

Our industry is undergoing restructuring of a magnitude that we have not seen in decades, and our business will be affected by these changes. We are repositioning our generation business to create a sustainable fuel mix for the future, in part due to environmental and economic factors. Our coal-fired generating capacity is projected to be 46 percent of total capacity by 2020 and 45 percent by 2026.

Our earnings strength lies in our regulated operations. A combination of reasonable returns on our rate base and the diversity of our service territory will continue to allow us to optimize the investments we make in our regulated business and provide fair returns to our shareholders. <u>AEP Ohio</u>, our largest operating company and earnings contributor, is preparing to transfer its generating assets to an AEP-affiliated competitive generation company or to other operating companies in need of capacity. Ultimately, AEP Ohio will buy its energy through auctions starting in late 2013 rather than relying on its own generation. AEP Ohio will buy generation capacity through auctions beginning in June 2015.

We are building our retail energy business to be more competitive in markets where customers have a choice of generation providers. Our competitive retail business unit, <u>AEP Energy</u>, is poised for continued growth with its offerings of retail electricity, natural gas and energy services and demand response programs, strengthening our capabilities and giving us a stronger platform for growth.

Transmission = Growth

Our transmission business continues to be an area of near-term and long-term growth. In 2012, a significant portion of our investment capital supported our transmission business. Investment in transmission will continue because it provides improved grid reliability and customer service, while also offering earnings growth and shareholder value.



We have a three-pronged plan: Invest within our service territory through our <u>AEP transmission companies</u> (Transcos); pursue competitive transmission projects inside and outside of our service territory through our <u>Transource</u> subsidiary; and continue to advance our project-based joint ventures with other utilities.

The Transcos develop, own and operate transmission assets that are physically connected to AEP's existing system. They are regulated by the <u>Federal Energy Regulatory Commission</u> (FERC) and use a formula rate design similar to the operating companies' FERC rates. The Transcos are independent of but overlay the service territories of AEP's existing vertically integrated utility operating companies. They can separately raise capital and are able to build new transmission without affecting the balance sheet or credit ratings of the operating companies.

AEP Indiana Michigan Transmission Company (IMTCo), AEP Ohio Transmission Company (OHTCo), AEP Oklahoma Transmission Company (OKTCo), and AEP West Virginia Transmission Company (WVTCo) have been formed. IMTCo, OHTCo and OKTCo currently own and operate transmission assets. The Appalachian Power Transmission Company (APTCo) has received conditional approval from the Virginia State Corporation Commission, subject to project-by-project review and approval. Applications for regulatory approvals for additional Transcos are pending in Arkansas, Kentucky and Louisiana.

As of Dec. 31, 2012, the Transcos had almost \$400 million of assets in service with plans to construct nearly \$1.9 billion in additional transmission facilities through 2015. With FERC approved formula rates that adjust annually, these investments provide additional reliability and efficiency while delivering stable earnings and shareholder value.

In 2012, our transmission business secured \$1.7 billion of new investment opportunities through the three regional transmission organizations (RTOs) within which we operate. Of that, \$1.25 billion comes from PJM Interconnection. This is tied directly to the regional coal-fired power plant retirements that are planned within the PJM region. Many of our coal-fired plants play a critical role in maintaining regional transmission grid reliability, and without these resources, new transmission is needed to support regional reliability.

Based on approved projects, the infrastructure improvements our transmission business will make between 2013 and 2015 will result in approximately 480 new or enhanced stations; roughly 1,800 miles of new transmission lines; and approximately 3,900 miles of rebuilt transmission lines. These investments comprise our long-range plan, which includes transmission investments by our operating companies and those made by the subsidiaries of AEP Transmission Holding Company.

We will continue to focus on the joint ventures we formed to build new transmission assets within and outside of our service territory. These partnerships allow us to leverage both expertise and financial assets. We made equity contributions of approximately \$99 million in 2012 to support construction and other expenditures of these projects. Many of them modernize the grid and improve reliability, alleviate congested power corridors and facilitate the development of renewable generation.

In April 2012, AEP became the first traditional regulated utility to form a competitive business for transmission with the launch of <u>Transource Energy</u>, a joint venture between <u>AEP</u> and <u>Great Plains Energy</u>. Expanding Transmission's growth strategy portfolio, Transource is a subsidiary of AEP Transmission Holding Company, the holding company for the Transcos and joint venture projects. Transource proactively positions AEP to pursue projects that result from FERC Order 1000 within the PJM Interconnection, <u>Southwest Power Pool</u> (SPP) and <u>Midwest Independent Transmission System Operator</u> (MISO).

FERC Order 1000

FERC Order 1000, issued in 2011, fundamentally changes how transmission facilities will be developed, owned and operated as well as how costs will be supported. We are encouraged by and supportive of FERC's decision to consider public policy in the transmission planning process, including economic and reliability considerations, the facilitation of the integration of renewable energy into the grid, and environmental regulations. The order mandates that the regional and inter-regional cost allocation methodologies follow six principles and requires

RTOs and transmission providers to offer evidence of such in their compliance filings. The key principles require cost allocation methodologies to be closely tied to the benefits that are calculated as part of the transmission planning process.

One of the significant changes resulting from Order 1000 is the requirement to remove the Right of First Refusal (ROFR) from RTO tariffs. The ROFR language currently provides a right and an obligation of local utilities to build the transmission projects within their service territories. In the future, transmission owners from outside AEP's service territory will be able to compete for certain new projects within our service area – and, through Transource, we will have more opportunities to develop projects outside of our own territory.

RTOs were created by FERC to manage the nation's transmission system as an integrated, well-planned, modern grid that will deliver electricity reliably for generations. AEP's service territory stretches over three of the nation's seven RTOs. During October and November 2012, the PJM, MISO and SPP RTOs made their Order 1000 compliance filings and we expect FERC to issue orders on those filings in 2013. AEP remains committed to and has been active in ensuring that the company's views and interests are represented in stakeholder discussions and at the FERC.

Project Highlights Across the United States:

Electric Transmission Texas (ETT)

Electric Transmission Texas (ETT) is a 50/50 joint venture between subsidiaries of AEP and MidAmerican Energy Holdings Co., which operates in Electric Reliability Council of Texas (ERCOT) and is an operating utility with a growing rate base. ETT has been assigned approximately \$1.5 billion in Competitive Renewable Energy Zone (CREZ) projects in Texas that support the state's commitment to renewable energy. The projects include seven double-circuit 345-kV transmission lines, nine company-owned substations and other equipment. The CREZ projects are expected to be in service by the end of 2013. As of Dec. 31, 2012, ETT has non-CREZ projects in service that include 559 miles of transmission lines and 19 company-owned substations. In addition, ETT is currently working on non-CREZ projects totaling more than 400 miles of transmission lines and 30 company-owned substations with various in-service dates through 2022. The total cost of the non-CREZ projects is \$1.6 billion.

Electric Transmission America (ETA)

<u>Electric Transmission America</u> (ETA) is a 50/50 joint venture between AEP and a subsidiary of MidAmerican Energy. ETA has a 50 percent ownership interest in Prairie Wind.

Prairie Wind

<u>Prairie Wind</u> is a joint venture between ETA and Westar Energy. It was approved in April 2010. This project consists of 345-kV double-circuit transmission lines, running from a new substation

in Wichita, Kan., to a new substation northeast of Medicine Lodge, Kan., and then south to the Kansas/Oklahoma border. The approximately \$180 million line is needed to enhance the delivery of electricity in Kansas and to support the state's expansion of renewable energy. In June 2011, the Kansas Corporation Commission approved the route and engineering, permitting and siting activities began shortly thereafter. Construction began in August 2012 and the project is scheduled to be in service by the end of 2014.

RITELine Transmission Development

RITELine Transmission Development (RITELine) is a joint venture between AEP and Exelon Corp. to develop a 420-mile, 765-kV extra-high voltage (EHV) transmission line that will extend from the Indiana/Ohio border west through Indiana to Henry County, Illinois. The estimated \$1.6 billion project will be built in phases between 2015 and 2019, depending on the timing of regulatory approvals. The RITELine project is needed to strengthen the Midwest transmission system, improve overall system reliability and establish the infrastructure needed to provide access to renewable sources of energy.

Pioneer Transmission

Pioneer Transmission is a joint venture between AEP and Duke Energy. Reynolds-to-Greentown is part of a larger, 240-mile transmission project in Indiana originally proposed in 2008 that extends from Duke Energy's Greentown substation to AEP's Rockport substation, near Evansville, Ind. The total cost of the entire project (including the portion to be built by NIPSCo) is estimated at \$950 million. In December 2011, the Reynolds-to-Greentown segment of Pioneer Transmission's project was approved as a multi-value project (MVP) by MISO and included in the 2011 Transmission Expansion Plan. The MVPs will collectively enhance regional reliability, improve market efficiency, enable public policy mandates and facilitate the integration of new generating resources, such as renewable energy, with the electric transmission grid. In August 2012, Pioneer filed an Offer of Settlement with FERC in which Pioneer and Northern Indiana Public Service Company (NIPSCo) agreed to develop the Reynolds-to-Greentown segment of the Pioneer project jointly. The estimated cost of the Reynolds-to-Greentown segment is approximately \$330 million.

Potomac-Appalachian Transmission Highline (PATH)

The Potomac-Appalachian Transmission Highline (PATH) project is a joint venture with FirstEnergy. In August 2012, the PJM Board of Managers removed the PATH project from its Regional Transmission Expansion Plan, based on recommendations made by the PJM staff. The PATH companies submitted an abandonment cost recovery filing to FERC in September 2012, requesting the recovery of prudently incurred costs associated with the PATH Project. In November 2012, the FERC issued an order accepting the PATH companies' abandonment cost

recovery filing and set the issue of return on equity and prudency of expenses for settlement proceedings. AEP's equity investment in the PATH companies is approximately \$31 million.

Economic and Business Development



Developing and investing in the local communities in which we operate and provide service has become increasingly important to us and our communities. A slower-than-expected economic recovery, recent and anticipated coal unit retirements and an increase in shale gas production have caused us to rethink how we do business.



In 2011, AEP formed an Economic and Business Development (E&BD) group to work with local communities to attract and retain businesses. This group works strategically with businesses, communities and state and local officials through our operating companies to identify potential sites for business relocation and expansion.

The <u>E&BD team</u> provides comprehensive assistance such as property searches and screening; custom research on demographics, work force, incentives and geographic information system (GIS) mapping; electric service plan and rate design; site visits; design, build and maintenance services for electrical facilities; and introductions to state, regional and local government officials and business leaders.

In 2012, AEP was named one of the top 10 utilities in economic development by Site Selection, a magazine covering corporate real estate strategy and economic development. The recipients were chosen based on an analysis of corporate end-user activity in 2011 in the company's territory. This includes website tools and data; input from site location decision-makers; innovative programs and incentives for business, including energy efficiency and renewable energy programs; and the utility's own job-creation infrastructure and facility investment trends. The magazine cited AEP for our site selection services through our seven operating companies, and energy efficiency programs for commercial and industrial customers.

AEP has targeted several industries for growth and development opportunities within its service territory. Qualified data center locations are one area that appears to have the greatest potential for growth. It is estimated that, by 2015, there will be a 50 percent shortage of data storage availability. AEP's 11-state territory provides attractive opportunities such as access to bandwidth and fiber optics and reduced risk of natural disasters and other hazards, which are critical when siting data centers. AEP is currently qualifying locations to become data centercertified. The qualification process includes an assessment of market conditions that could lead to potential data center locations, selection of potential data center sites, and a detailed analysis and site certification process that involves a review of factors that are most critical to the operation of data centers.

Our plan to close some of our coal-fired units will adversely affect local economies. Power plants often provide the highest-paying jobs where they are located and are a source of vital tax dollars that help pay for schools, roads and other community needs. The plants also support local businesses. The loss of jobs, taxes and local employee income related to plant retirements is going to hurt these communities.

In an effort to lessen the impact of coal plant retirements on local communities, the E&BD team is pursuing a two-pronged approach. First, we are advocating for the provision of federal resources to assist our communities in retooling their economies to support job-creating investment once the plants close. Second, we are exploring effective ways to reuse retired coal plants or plant sites, including the existing infrastructure, for other industrial uses. AEP plants are located on industrial sites that are already permitted and have a variety of infrastructure in place as well as a world-class manufacturing work force. These sites can serve as ideal locations for manufacturers. We are actively seeking business opportunities that will be able to use these assets while providing economic stability locally.

Responding To The Shale Gas Boom

From extraction and production to supply chain, shale gas development provides an opportunity for economic growth. Six major shale gas formations are located, in part, across eight of eleven states in AEP's service territory, including two of the fastest growing – Utica and Eagle Ford – located in Ohio, West Virginia and Texas. AEP's Economic and Business Development team provides expertise and tools for oil and gas companies and suppliers to explore opportunities for relocation and help identify the most cost-effective locations. This collaboration creates mutual benefits, including job creation and accessible and efficient supply chain or electric demand growth.



Shale gas development is a challenge and an opportunity for AEP. Oil and gas companies are able to build and develop pipelines more quickly than we are able to build transmission and distribution lines to support their facilities. Their timelines are aggressive, and competition to serve these customers is high. In many cases, the locations require new transmission facilities in

order to connect these new customers. Quick, reliable service is critical to securing these customers, and a coordinated effort between AEP and the oil and gas companies is necessary to ensure we have the equipment and facilities in place to meet their needs in a timely fashion. In West Virginia, Transmission employees and contractors worked around the clock to complete a new 138-kilovolt service ahead of schedule for critical shale gas customers near Majorsville, W.Va. Being innovative and delivering good customer service positions AEP to take advantage of emerging business opportunities across our service territory.

AEP Transmission installed its first "station in a box" in Catarina, Texas, in 2012, a unique prepackaged substation design that can be built in about half the typical construction time frame of a traditionally built permanent station. The shale gas development in Oklahoma, West Virginia, Texas and Ohio has companies racing to extract the fuel deep beneath the earth's surface, sometimes in very remote locations. The natural gas companies cannot wait the typical 12 to 18 months for the completion of a traditional substation. To serve these customers' needs quickly, AEP Transmission developed a "skid station" – a portable station on a skid that can be installed in a matter of weeks before the station in a box can be built for permanent service. By creating a basic yet high-tech skid-mounted substation, we can deliver power in just four to eight weeks. Read more about these innovations in Innovation & Technology.

AEP's transmission strategy has supported several economic development opportunities throughout our service territory. Three steel manufacturers relocated and expanded their operations in response to AEP's growing need for transmission steel poles and lattice towers. One steel pole manufacturer expanded its capacity by adding a plant in Hicksville, Ohio, a recession-strapped community in AEP Ohio's service territory. The company secured a suitable manufacturing site with a skilled work force, returning more than 200 jobs to Hicksville, and AEP secured a large customer and supply line to support our growing transmission business.

Inland Waterways

One public policy matter that is not as visible as environmental issues is the deteriorating condition of our inland waterways, which are maintained by the U.S. Army Corps of Engineers. The Corps estimates that 47 percent of all main or auxiliary locks on the Ohio River will be in poor or failing condition by 2016. Data currently indicates that this risk will rapidly worsen, especially in light of the budget pressures on the Corps' navigation projects.



The nation's inland waterways are of strategic economic and military importance because the commercially navigable waterways connect 41 states, providing the capability to move large amounts of freight cargo. These waterways carry agricultural commodities, chemicals, coal and petroleum products to ports across the United States. But the infrastructure

supporting this commerce is past its 50-year lifespan, according to the Institute for Waterways, a unit of the Corps. And according to the Congressional Research Service, only one lock along the Ohio River has received funding to be replaced through the 2016 fiscal year.

Continued lock delay and reduced water levels kept us from fully delivering on our normal coal deliveries schedule. In 2012, we experienced 176 days of lock delay at the Markland and Greenup locks for installation of miter gates, which are used to close the entrance and exit of navigation locks to allow passage of vessels between water levels in a canal or river system. Three sets of miter gates were installed along the Ohio River in 2012. Nine major locks have already been scheduled for significant closures for 2013. While it is long overdue, these closures will mean further delays in delivering fuel, grain and other commodities. These nine closures represent a total of 439 days of closures, which can cause significant delays in delivering commodities as well as create financial risk.

AEP continues to support a 20-year capital development plan proposed by the Inland Waterways Users Board and various trade associations. This plan would increase the fuel tax that commercial users of waterways would pay to help fund infrastructure improvements. We expect legislation incorporating this plan to be introduced in Congress in 2013, and we hope it will be incorporated into the next Water Resources Development Act as a high priority. However, the Washington, D.C., political climate makes passage of any significant legislation in 2013 that would enable this program uncertain.

In addition to infrastructure challenges, the drought is posing significant economic as well as environmental and social implications. The <u>National Oceanic and Atmospheric Administration</u> (<u>NOAA</u>) reported 2012 was the warmest and most extreme for weather on record in the contiguous United States. It was also the 15th driest year on record in the lower 48 states and the driest for the nation since 1988.

American Society of Civil Engineers report card on inland waterways

Innovation and Technology



New and innovative initiatives are under way across AEP in response to emerging business opportunities. These initiatives improve system reliability and performance, result in fewer environmental impacts, lower the cost to deliver electricity to customers and reduce by half construction time of new facilities. Nowhere is the use of innovation and technology more evident than in our transmission business unit.

"In order to differentiate ourselves in the market, we must be able to monitor and gain experience in emerging technologies and be ready to embrace them quickly." - AEP Stakeholder

Trailblazing in Transmission

AEP Transmission redefined "cutting edge" technology in 2012 when our team developed a new and compact extra-high voltage 345-kV line design. In response to the need to minimize right-of-way land requirements and increase the functionality of 345-kV lines and corridors, we challenged our employees to develop a new high-capacity 345-kV line design for long-distance applications. Patents are currently pending for the new compact design that, when compared to conventional 345-kV designs, provides more capacity, is less costly for the megawatts delivered, provides greater use of rights-of-way and, with its unique low-profile design, is more streamlined in appearance. The new 345-kV line design is an example of a solutions-oriented culture and collaborative leadership at AEP.



Installation of the Steamtown skid station near Summerfield, Ohio this past November, is one example of how skid stations have enabled AEP to respond to rapidly changing market conditions and customer expectations.

In 2011, AEP Transmission developed a pre-fabricated building design called the Drop-in Control Module (DICM). This new concept, designed by AEP Transmission's engineering team, delivers a control building with pre-built relay panels that replaces the transmission substation control buildings constructed on site. The new design cuts required on-site construction time in half by pre-fabricating everything ahead of time at the manufacturer. It allows us to respond to customer needs for power more quickly and affordably. In addition, it has resulted in landfill avoidance for the wood that was traditionally needed to package the individual relay panels when they were shipped to the substation. More than 28 tons of wood was diverted from landfills in 2012.

We also developed a new "skid station" for situations where customers need service even more quickly. These temporary stations are self-contained, quick to build and flexible enough to accommodate a wide range of operating voltages to support transmission and distribution customers. By enabling AEP to respond to rapidly changing market conditions and customer expectations, skid stations have provided new and emerging business opportunities for AEP. Unlike the temporary stations used in the past, skid stations can simply be picked up and moved to the next place they are needed.

In 2012, AEP Transmission's engineering team again set precedent when it took the prefabricated design approach a step further and developed the "station in a box" concept. As natural gas and oil production ramped up in many of our states, so did the need for the quick and reliable substation development to provide power for drilling and processing facilities. The typical substation takes 12 to 18 months to build and place into service. This unique prepackaged "station in a box" can be built in half that time. It not only accelerates the construction process, it reduces fuel use by moving all the materials to the site at one time rather than in multiple trips.

Another breakthrough in transmission is the deployment of three-dimensional (3-D) design software for substations and other facilities. This cutting-edge design approach is expected to

replace traditional dimensional design software currently used in the industry The 3-D model allows users to design structure clearances effectively by allowing them to see all of the perspectives of a substation. This new approach results in engineering and design savings of approximately 10 percent. View a video demo of this new design model.

AEP Transmission is working with CTC Global and Quanta Services to complete the largest and most complex "reconductoring while energized" project in AEP history. The project includes the reconductoring of 240 miles of 345-kV transmission lines in south Texas using advanced, lowloss, low-sag conductor, and a live reconducturing technique. These circuits are critical to the reliability of the Rio Grande Valley and required minimizing outages. The unique live reconductoring technique enables AEP to improve service reliability in the area while maintaining service during the work.

A new central Asset Health Center (AHC) platform to virtually monitor equipment in the field and enable "reliability-centered maintenance" of equipment was developed by our Transmission team. This first-of-a-kind system allows remote evaluations of asset conditions and maintenance needs and early warnings for equipment failures, and it prioritizes replacements. As the physical infrastructure ages, it is imperative to have this system to manage equipment effectively for reliability and customer service.

Distribution Breakthroughs

AEP's gridSMART® initiative integrates a host of advanced grid technologies into the existing electric network that will improve service quality and reliability, lower energy consumption and save money. The new technologies can help us improve our efficiency, identify and respond to



outages more quickly and better monitor programs and pricing options that allow

them to monitor and control their own energy use, saving resources and money. We are deploying smart grid technologies in several of our jurisdictions with regulatory support.

Status of Our gridSMART® Projects Now in Progress:

gridSMART® is designed to demonstrate the potential benefits of the smart grid by integrating advanced grid technologies in several jurisdictions with regulatory support.

- <u>AEP Ohio</u> is deploying a comprehensive group of smart grid technologies in an innovative demonstration project with more than 110,000 customers. The \$150 million project is being funded through a \$75 million federal grant, cost recovery support from the Public Utilities Commission of Ohio and in-kind contributions from vendors.
- <u>AEP Texas</u> is deploying a one-million-meter smart grid network, along with \$1 million in energy use display devices for low-income customers. The \$308 million project is targeted for completion by the end of 2013. We are recovering costs through an 11-year surcharge on customer bills.
- <u>I&M</u> has deployed a smart grid network to 10,000 customers. The \$7 million project was funded pursuant to a settlement agreement approved by the Indiana Utility Regulatory Commission. I&M was the first to deploy this technology through the gridSMART[®] initiative.
- PSO has deployed smart meters to more than 31,000 customers, approximately 14,300 of whom will be served on circuits equipped with advanced grid management technologies. The project is being financed through an \$8.75 million American Reinvestment Recovery Act low-interest loan from the Oklahoma Department of Commerce. An additional \$2 million in annual revenues for cost recovery was approved by the Oklahoma Corporation Commission.

Applying technology on our distribution system through monitoring and controlling voltage is another advancement to reduce the amount of energy that must be produced and delivered to customers on demand. Known as Volt/Var Optimization, this technology has proven its technical viability and energy efficiency potential. Typically, distribution lines deliver electricity at a voltage between 114 and 126 volts. Using the full range of voltage (closer to the 126 volts) is common practice in our industry; it has been a way to ensure the strength of the voltage between the point of origin and the customer. But studies and recent experience are showing that optimizing voltage – delivering electricity at the lower end of the range – reduces customer energy demand and consumption, and thus lowers their bills.

Deployment of Volt/Var Optimization began in AEP Ohio as part of the gridSMART[®] Demonstration Project and has since expanded to I&M, KPCo and PSO. AEP's operating companies will be selectively reviewing options for deploying this technology where conditions are favorable.

Integrated Volt/Var Control installation was one of AEP's 11 research projects awarded the 2011 Electric Power Research Institute's Technology Transfer Award. The award recognizes the value of collaborative research to the electricity sector and its customers.

We continue testing Community Energy Storage technology, but technical challenges have stood in the way of making progress. Maintaining power with energy storage is designed to be seamless; customers connected to the systems may be unaware that there has been an outage and they are using stored electricity. Perfecting energy storage would be a significant game changer for our industry because it would allow customers to store electricity to use when they need it

most, reducing demand on our facilities using the stored energy during an outage or periods of peak demand and, by extension, reducing our operational costs and environmental impacts.

New Technologies in Power Generation

While our generation portfolio has shifted over the last decade to include more natural gas-fired and renewable generation, we also completed construction of the country's first ultra-supercritical coal-fired unit, the John W. Turk, Jr., Power Plant in Hempstead County, Ark., last year. The Turk Plant's advanced thermal cycle ranks it among the highest efficiency coal plants in the world. This unit was designed to provide low-cost base load power to complement new gas generating resources that were built in recent years. This supports our intent to diversify our fuel mix.

The Turk Plant represents a new generation of plant design using a higher temperature and pressure steam cycle that requires less fuel to produce each megawatt-hour of electricity. This means that all emissions, including SO₂, NOx, mercury and CO₂, are lower than conventional coal-combustion processes per unit of electricity produced. Turk began commercial operation Dec. 20, 2012. The plant was dedicated in April 2013.



The 600-MW John W. Turk, Jr., Plant in southwestern Ark., is among the nation's cleanest, most efficient pulverized coal plants.

A noteworthy example of innovation in power generation that we are monitoring closely lies in the field of chemical looping technology. Chemical looping is not a carbon capture technology nor is it a combustion technology in the way we typically describe combustion today. In one application of chemical looping, coal undergoes a flameless chemical reaction with a metal oxide, known as an oxygen carrier. The oxide reacts with the carbon in the coal to produce a pure stream of CO_2 and the chemical energy in the coal is then transferred to the oxygen-depleted, or reduced, metal. The CO_2 can then be compressed and sequestered, or hopefully used for other purposes. The reduced metal is sent to an oxidation reactor where air is introduced to re-form the

metal oxide, generating enough heat to produce steam to run a power generating turbine. The metal oxide is then "looped" back to react again with more coal, and the process starts over.

With success, this and other new revolutionary technologies will enable our next generation of power plants to use coal with extremely high efficiency, producing ultra-low emissions and a pure stream of CO₂ with no added energy impact. Not only will these concepts revolutionize the power generation industry, they can open the vast, yet untapped, oil reserves in this country to enhanced oil recovery production by making enormous quantities of low-cost CO₂ available to support oil extraction. The potential for chemical looping is significant and is the type of purposeful innovation we believe can sustain our company and our industry by leveraging existing infrastructure and finding new and better ways to use coal in the future.

Technology Transfer Awards

The <u>Electric Power Research Institute</u> (EPRI) recognizes members annually with Technology Transfer Awards for their efforts to apply research and development on behalf of their companies and the industry at large. AEP received several 2012 EPRI Technology Transfer Awards in three sectors – power delivery and utilization; environment and renewable energy; and generation. AEP was recognized for:

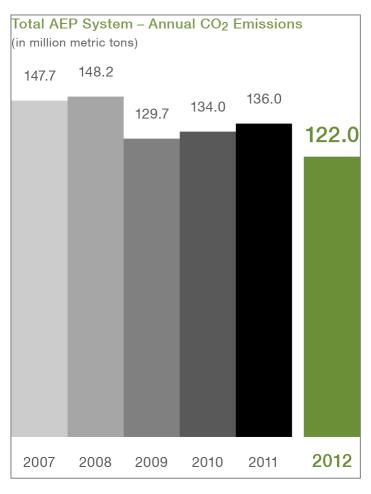
- Leading one of the first major collaborations between the automotive and utility industries on modern plug-in vehicle technology;
- A case study on AEP's Smart Grid project; AEP was part of a multi-company team recognized for deploying equipment, collecting data, and conducting analysis;
- An assessment of the viability of distributed solar photovoltaic generation;
- Participating in a team effort to lead an analysis of water withdrawal and consumption for electric power generation, how it compares to water use in other industries and how conservation options can be used to reduce water consumption;
- Initiating a project to evaluate the properties of fly ash that will be instrumental in supporting design and loading of ash ponds, particularly during pond closures;
- A broad-based utility collaborative that launched a rapid-response project to identify the root cause of severe corrosion in flue gas desulfurization (FGD) systems installed in U.S. coal-fired power plants and to develop new inspection and mitigation strategies.

Climate Change



Climate change may be one of the most significant long-term sustainability risks for AEP. We have continued to take a leadership role on the issue; however, national public policymakers and regulators in our 11 states have conflicting views about global warming and the need for greenhouse gas (GHG) regulations in the United States.

AEP has proactively supported a number of proposed climate bills in Congress and made significant investments in clean-coal technologies. We voluntarily reduced or offset carbon dioxide (CO₂) emissions through the Chicago Climate Exchange between 2003 and 2010 and set a new 2020 goal for emission reductions. We are proud of the progress we've made to reduce our carbon dioxide emissions during the last decade, and the transformation of our generation business will further reduce those emissions in the future.



We are currently focused on taking practical, short-term actions to reduce our carbon footprint, such as improving energy efficiency, investing in the development of cost-effective and less carbon-intensive technologies and evaluating our assets – power plants, office buildings, and mobile fleet across a range of reasonable scenarios. Longer term, the transformation of our generation business is expected to reduce our reliance on coal from 65 percent of our generating capacity in 2012 to about 46 percent in 2020. This balancing of our fuel resources will also keep us on the path to continued carbon dioxide reductions, helping us achieve our 2020 goal to reduce GHG emissions by 10 percent from 2010 levels.

We are also actively engaged in many different public policy discussions at the state, federal and international levels to assure that any new proposed requirements are feasible, economical and don't put our customers at a competitive disadvantage.

AEP's Position On Climate Change

AEP believes that moving too quickly with climate change initiatives could impair an already struggling economy even further. Any plan for CO₂ emissions must be rational in terms of timing, scope and reduction targets to accommodate continued growth of the economy, mitigate costs to customers and achieve the environmental benefits desired.

Even though the United States lacks a national climate policy, energy-related CO₂ emissions have declined since 2007. According to the Edison Electric Institute (EEI),

"preliminary U.S. Energy Information Administration data indicate the U.S. power sector CO₂ emissions for 2012 will be around 2 billion metric tons. If 2012 trends are confirmed by final data, power sector emissions would be at their lowest levels since 1996, and would be approximately 17 percent below 2005 levels. This would continue the trend of declining CO₂ emissions from the power sector."

Excerpt from letter from EEI to Congressman Henry Waxman and U.S. Senator Sheldon Whitehouse.

Emissions in the U.S. have decreased in recent years due to several factors: slower-than-expected economic growth from the 2008-2009 recession; fuel switching from coal to cheaper, cleaner burning natural gas; increased deployment of renewable resources and energy efficiency projects; and increased motor vehicle fuel economy regulations.

In the interim, alternative legislative approaches are being discussed. These include:

- A carbon tax resurfaced in late 2012 in part due to a need for additional government revenue to fill the budget deficit. The tax would place a fee on the use of fossil fuels such as coal, oil and gas, giving an economic incentive to reducing their use and resulting CO₂ emissions. While a potential source of revenue, its disadvantages for the economy and uncertainty of the environmental benefits kept it from becoming a reasonable solution.
- The Clean Energy Standard Act of 2012, a Clean Energy Standard (CES), was proposed
 in the Senate in an attempt to push large retail utilities to generate or use electricity from
 cleaner resources. While the CES moves beyond renewables to include other sources
 such as natural gas, nuclear power, hydropower, carbon capture and storage and waste-toenergy, we do not foresee much progress on this bill over the next few years mainly due
 to political gridlock.

Although the U.S. appears to be making strides toward reducing its CO₂ emissions and meeting President Obama's pledge to reduce U.S. greenhouse gas emissions by 17 percent below 2005 levels by 2020, our position on global climate change remains the same: We believe it is a global issue that requires a global solution. According to some projections by the Electric Power Research Institute, non-OECD (Organisation for Economic Co-operation and Development) countries, such as China and India, will account for approximately two-thirds of energy-related CO₂ emissions by 2020. Emission reductions in these countries will be critical in making real progress on climate change.

Greenhouse Gas Regulations

In the absence of federal legislation to reduce greenhouse gas (GHG) emissions, the <u>U.S.</u> <u>Environmental Protection Agency</u> (EPA) set itself on a course to regulate GHG emissions under the Clean Air Act. The EPA has already established a rule requiring the consideration of GHG emissions for permitting new sources or for major modifications of existing sources that would trigger a Prevention of Significant Deterioration permit. That rule is undergoing judicial review.

In April 2012, the EPA proposed New Source Performance Standards (NSPS) regulations for CO₂ emissions from new electric generating units under Section 111 of the Clean Air Act. These performance standards would apply to most new fossil steam generating and combined cycle units. However, as proposed, the rule effectively precludes the construction of new coal-fired electric generating units as it establishes a single emission rate standard that is based on a natural gas combined cycle unit. Because natural gas is inherently less CO₂ emission-intensive than coal, construction of a coal unit will be impossible without the use of carbon capture and storage, a technology that is not yet commercially available.

AEP is not currently planning to build new coal-fired capacity, but economics, the need to maintain fuel diversity, and other factors could lead us down this path in the future. We strongly believe that the EPA should not dictate energy policy, and that over-dependence on a single fuel with a history of price volatility has inherent risks. Moreover, without greater harmonization of the natural gas and electricity markets and significant investments in pipelines and infrastructure, gas dependency exposes the electricity grid to new reliability risks. AEP has submitted comments encouraging the EPA to withdraw or revise the regulations to set different standards for new natural gas and coal-fired facilities, consistent with its previous practice under the Clean Air Act.

The EPA also made a commitment to issue new NSPS guidelines for CO₂ emissions from existing electric generating facilities; however, no timetable has been announced for these regulations. Such guidelines are intended to establish procedures so that states can develop and

implement the standards through their state implementation plans. If the EPA does move forward, it will be important that the program:

- 1. Provide maximum flexibility under the Clean Air Act to minimize the economic impacts, including evaluating the potential for a market-based trading program and the use of greenhouse gas emission offsets;
- 2. Take into account the wide range of existing sources and the limitations in efficiency improvements that can be achieved at existing power plants; and
- 3. Ensure that any new standard does not force us to abandon the billions of dollars in emission control investments already made on the existing fleet of coal-fueled power plants to meet other EPA emission regulations.

Without a regulatory proposal to address GHG emissions from existing units, AEP is unable to speculate on the potential impact of this rulemaking on our operations. We will, however, take an active approach in the regulatory process to ensure the resulting regulations are both realistically achievable and cost-effective.

Renewable Energy

As we transition our generation business to a more balanced resource mix, renewable energy will become a larger part of our portfolio. Seven of our states have laws or regulatory orders that establish requirements or goals for renewable and alternative energy sources, such as Renewable Portfolio Standards (RPS) or Alternative Energy Portfolio Standards (AEPS): Indiana, Louisiana, Michigan, Ohio, Oklahoma, Texas and West Virginia. The requirements in Indiana, Oklahoma and Virginia are voluntary; the others are mandatory.

AEP's Renewable Portfolio – Wind & Solar Purchased Power Agreements (nameplate cap	acity)
Contributions by Operating Company	MW
Appalachian Power (APCo)	375.00
Indiana Michigan Power (I&M)	250.00
AEP Ohio	209.10
Public Service Company of Oklahoma (PSO)	689.80
Southwestern Electric Power (SWEPCo)	469.15
Total 1,9	93.05
As of March 2013	

Without state requirements in place and/or a clear path for utilities such as AEP to recover what are usually abovemarket costs for renewables in its rates, investing in or committing to additional renewable energy can create significant financial risk for AEP.

From 2007 to 2012, AEP's operating companies entered into 1,984 MW of long-term wind contracts and 10 MW of long-term solar contracts, bringing our

total to 1,994 MW toward our 2,000 MW goal. Regulatory approval for an additional proposed 49.9-MW solar project in Ohio was denied by the Public Utilities Commission of Ohio in

January 2013. The commercial solar facility, planned to be built on approximately 750 acres of reclaimed mine land, would have helped AEP Ohio meet the solar load requirements of Ohio Substitute Senate Bill 221, while giving Ohio a unique opportunity to leverage new in-state manufacturing jobs and make an environmental investment.

Through a modification of our New Source Review Consent Decree, we will add 200 MW of additional wind by the end of 2015 to serve our I&M customers, once the decree is approved by the court.

The "fiscal cliff" legislation passed by Congress on Jan. 1, 2013, extended tax credits related to renewable energy, energy efficiency and alternative fuel tax credits, one of them being the Production Tax Credit (PTC). The PTC, which supports the development of wind generation and other renewables, not only extended the tax credit by one year, but made a policy change that allows for the credit to be claimed if construction begins on a renewable energy facility before the end of 2013. The Investment Tax Credit (ITC) was also significantly expanded, allowing renewable developers to claim a one-time tax credit of 30 percent, which can be claimed if their project begins construction during 2013, rather than having to go into commercial service by the end of this year, as was previously required. The 30 percent Solar Investment Tax Credit remains in effect for projects completed and placed in service by the end of 2016.

By extending and expanding the PTC and ITC tax credits, Congress has given the renewable industry more time and financial stability to complete projects currently under development, while securing jobs and helping to make renewables more affordable for utility customers.

AEP Renewable Portfolio Standards by State

AEP Operating Companies	State	Description of Standard(s)	Compliance Date(s)
Ohio Power	ОН	Mandatory Renewable Energy Standard – phased-in starting at 0.5% and increasing to 12.5%.	2009-2024
		Mandatory Advanced Energy Standard – 12.5% by 2024	
Indiana Michigan Power (I&M)	MI	Mandatory Renewable Energy Standard – phase-in program starting at 2% and increasing to 10%.	2012 – 2015
	IN	Voluntary Renewable Energy Standard – phase-in program starting at 4% and increasing to 10%.	2013 – 2025
Appalachian Power Company (APCo)	WV*	Mandatory Renewable/Alternative Energy Standards – phased in starting at 10% and increasing to 25%.	2015-2025
	VA*	Voluntary Renewable Energy Program – phased in starting at 4% and increasing to 15%.	2010 – 2025
Public Service Company of Oklahoma (PSO)	OK	Voluntary Renewable Energy Standard – a goal that 15% of all installed capacity of electricity generation with the state be generated from renewable energy sources.	
Kentucky Power Company (KPCo)	KY	No RPS	
Southwestern Electric Power Company (SWEPCo)	TX	Mandatory Renewable Energy Standard – starting at 2,280 MW and increasing to 10,000 MW (statewide).	2007-2025
	LA	Renewable Energy Pilot Program – goal is to determine whether a suitable for Louisiana.	2013
	AR	No RPS	

^{*} Wind and Solar count double towards meeting both WV and VA goals effectively cutting the standard in half.

Managing Risk

We are faced with an array of risks, some well-established and controlled and others emerging and not as well-defined. We must effectively manage our risks and strengthen our risk management capabilities, which include our ability to respond successfully to unforeseen risks. Our effectiveness at managing risk helps us to identify and prepare for new opportunities that may benefit our customers, improve the work environment for our employees and deliver value to our shareholders.

We continuously evaluate our levels of acceptable risk based on internal targets and guidelines and external operating conditions. We have created management systems and a culture that support our abilities to identify, evaluate and manage risk. For example, our culture encourages self-reporting if noncompliance is suspected. We have been developing future industry scenarios that will enable us to stress-test our business assumptions and to identify potential game changers and risks. Our commitment to comprehensive and forward-looking risk management is reflected

in our efforts to put a process in place to identify emerging risks or issues that could become material risks.

These activities deepen our ties between risk management and strategic planning and give management and the board more information to understand, evaluate and respond to all of the risks and strategic opportunities facing the company now and to anticipate what could affect the company in the future.

Our Enterprise Risk Oversight group, led by our chief risk officer, is responsible for developing the collective risk assessment of the company. It gathers and analyzes information from functional business units at all levels of the company and reports to the Risk Executive Committee, which consists of members of the Executive Council and functional unit representatives. The Risk Executive Committee makes recommendations to business unit leaders for risk mitigation, where appropriate, and identifies the major risks and material issues on an enterprise-wide basis that align with the company's strategies, which are monitored and reported on a regular basis to the Audit Committee of the board of directors.

Financial risk is inherent in both our business and the regulatory framework in which we operate. We sell wholesale and retail electricity, which exposes us to energy commodity price risk and counterparty risk. The Market and Credit Risk groups, also led by our chief risk officer, are responsible for managing these risks and provide members of the Commercial Operations Risk Committee (CORC) with daily, weekly and/or monthly reports regarding compliance with policies, limits and procedures. The CORC is made up of our chief operating officer, chief financial officer, senior vice president of commercial operations, executive vice president of energy supply and chief risk officer. The Market and Credit Risk policies, among numerous other policies that govern our actions, are approved by the Finance Committee of the board and work in concert with the Enterprise Risk Management Policy to ensure that key risk areas are appropriately reviewed and managed.

On the regulatory side, we face significant financial risks: the uncertainty about rate recovery, for example, and the likelihood of more federal, state or local environmental regulations that might require significant increases in capital expenditures and operating costs. That could, in turn, lead to increased liquidity (cash) needs and higher financing costs.

Cyber Security



Protecting operations systems and critical energy infrastructure from cyber-attack is a daily critical mission at AEP, with threats coming from all directions. Breaches to the cyber security of the grid, or to our system, are potentially disruptive to people, property and commerce and create risk for our business, our investors and our customers.



Dennis DeVendra, IT Manager, in AEP's Cyber Security Operations Center.

We protect our critical cyber assets, such as our data centers, operational control systems, and business network, using multiple layers of cyber security and authentication. We constantly scan the system for risks or threats, and we maintain an active threat intelligence function to identify emerging threats and vulnerabilities. We continually advance the awareness of our employees and contractors to these cyber security threats so that they are better prepared to respond appropriately to any threat to our company.

Cyber security has also become a national security issue. During the past year, numerous legislative proposals have been submitted in the Congress, and a Presidential Executive Order was issued to address overall cyber security across the nation's critical infrastructure. Many of these initiatives have had common themes to improve cyber security for critical infrastructure, including greater threat-sharing information between the government and the private sector, and improving access for the private sector to government-classified threat intelligence data. The electric industry continues to be one of the few critical infrastructure functions with mandatory cyber security requirements under the authority of the Federal Energy Regulatory Commission, the North American Electric Reliability Corporation and the Nuclear Regulatory Commission.

As these national cyber security initiatives have arisen, AEP has partnered with a number of other utilities and the <u>Edison Electric Institute</u> (EEI) to help inform our legislators and regulators on the advanced cyber security functions our industry is already performing. We are also sharing

what we learn and the practices that we employ to protect our critical infrastructure, many of which exceed what is required.

But just as the threats to critical infrastructure evolve and increase, so must our defensive capabilities and business functions. Consequently, we have partnered with our peer utilities, EEI, the <u>Electric Power Research Institute</u> (EPRI), the <u>U.S. Department of Energy</u> (DOE), and many other organizations to address cyber security capabilities and advanced defenses.

In 2012, we completed a major milestone with the deployment and operation of our Cyber Security Operations Center (CSOC), becoming the first utility in the country to build a CSOC. This project was funded through our gridSMART® program as part of a larger American Recovery and Reinvestment Act Department of Energy Smart Grid Demonstration Project grant. It is designed as a pilot cyber threat and information-sharing center specifically for the electric sector.

The CSOC is now operational, sharing cyber security threat information and other data across a number of CSOC member utilities and with the Department of Homeland Security. In 2013, this program became functional under the governance of a utility membership steering committee, funded by its membership base. This is a true government-private sector success, where government funding was used to seed the development and deployment of a cyber security tool to the private sector.

We also continue to focus internally on advancing cyber security capabilities. In March 2012, we signed a cooperative research and development agreement with the Department of Homeland Security's Office of Cyber Security and Communications, further enhancing our ability to directly exchange information about cyber threats. In addition, we continue to partner with a number of federal and industry groups to advance the national capabilities of cyber security. We also test our defenses internally. In 2012, we held an executive-level tabletop drill to test the security of our systems and response to a cyber-attack against our company and we will conduct similar drills again in the future.

Other Business Protections

In addition to cyber security measures, we have business continuity and disaster recovery plans in place. Every business unit has a business continuity plan specific to its needs that addresses people, processes, property and other factors. For example, we have plans to respond to a pandemic that could cause widespread employee absences and supply disruptions, affecting our ability to serve our customers.

We benchmark our business continuity plans against our peers, recently using the Edison Electric Institute Business Continuity Benchmark survey. In addition, AEP maintains a 24/7 IT Disaster Recovery Center that makes it possible for us to continue operations in the event of a disaster. Although our disaster recovery infrastructure is continuously monitored and is in a state of readiness, we will analyze the recovery prioritization of business processes to ensure those priorities reflect today's business environment and needs.

Since 2008, AEP has been subject to the federal government's Red Flag legislation, which requires financial institutions and creditors to have a personally identifiable information (PII) protection program in place. AEP is considered a "creditor" under this legislation and must provide protection for the customer information we collect. In 2012, AEP's Red Flag team went into action when scammers targeted customers with threats of disconnection unless they immediately paid their outstanding bill, using a prepaid money card. Collaboration between the Red Flag team and AEP Security identified patterns of the scam that helped determine which customers were being targeted and why. The team also made follow-up calls to customers who reported the incidents to inform them of the scam and provide tips to protect themselves from harm.

Competing For Capital

Compliance with new environmental regulations, modernization of the grid, growth of our transmission business and the high demand for electrical facilities to support economic development and the shale gas boom have thrust capital resources into a tight competition between business units and business needs. Our strategic goals keep us focused to deploy these limited resources where they can be most beneficial for customers, cost effectively ensure compliance with regulations and support the growth areas of our business.

At times, however, taking advantage of new business opportunities requires a system-wide examination of priorities to ensure capital resources are invested in the optimal areas. In 2012, AEP's Investment Review Committee (IRC) was instrumental in reallocating capital to AEP Texas, to allow the company to invest in infrastructure that supported shale gas development. The decisions were collaborative between the companies and other business units in recognizing that capital could be more beneficially deployed elsewhere in the company at that point in time. The IRC, which meets at least once a year with all operating companies to review their financial performance and long-term capital spending plans, is chaired by AEP's chief financial officer.

AEP Transmission is engaged in a plan to modernize major infrastructure within the company's service territory. The plan seeks to improve regional and local reliability while lowering operations and maintenance costs. It includes building new stations and lines as well as

reconductoring and rebuilding existing lines and stations to increase their capacity. Projects are prioritized based on available capital and how critical the improvements are to the system.

AEP Capital Investments (\$ in mi	illions)	
	2012 Actual	2013 Guidance
Environmental Generation	\$235	\$530
New Generation	\$226	\$27
Nuclear Generation	\$180	\$256
Base Fossil & Hydro Generation	\$326	\$358
Transmission	\$522	\$573
Distribution	\$963	\$1,008
Corporate	\$105	\$83
Total Utility Operations	\$2,557	\$2,835
AEP Transco	\$406	\$693
Transmission JV Equity Contribu	tions \$99	\$54
AEP River Operations & Other Non-Utility	\$32	\$9
Total Capital &	\$3,094	\$3,591
Equity Contributions		
Excludes AFUDC debt & equity and cash flow adjustments; includes joint venture (JV) equity contributions.		

Partnerships & Engagement

Our Relationships



Our ability to make sustainable business decisions is enhanced by the relationships we have with many different stakeholders, primarily our regulators, customers and shareholders but also our other stakeholders. Our business has always depended on the strength of our relationships, and this is so now more than ever before.

Calls Received by AEP's Call Centers



Successful relationships require good faith, honesty and transparency about the reasons for our decisions. Strategic alliances and business relationships are essential to advance AEP's business strategy and support economic growth, improve quality of life and innovation, and lead to fair and cost-effective public policies.

How We Engage

We held or participated in six formal stakeholder meetings or calls in 2012. We also changed the scope and format of our meetings. Traditionally, we held larger meetings that focused on several issues with diverse stakeholders. Over time, that process matured and, based on feedback from stakeholders and the conclusions of a stakeholder research project we participated in, we now conduct smaller, more issue-focused engagements. This type of engagement allows our stakeholders to be more personally involved with our subject matter experts. Many of our discussions are focused on energy efficiency and demand-side management. We also had discussions on environmental issues, coal, supply chain, climate change and water risk issues.

In February 2012, we held a multi-stakeholder meeting with <u>AEP's leadership team</u>, led by <u>President and CEO Nick Akins</u>. We met with more than 40 customers, analysts, investors, environmental organizations, trade groups, coal suppliers and labor leaders. It was Nick's first stakeholder meeting as CEO. He emphasized the importance of these types of discussions and encouraged stakeholders to come forward with their ideas and concerns. The dialogue focused

largely on AEP's business transformation in response to EPA's environmental regulations and Ohio deregulation.



Many of our operating companies conduct local stakeholder meetings that generally focus on energy efficiency and demand-side management. In March 2012, AEP Texas led the first Texas Energy Efficiency Summit – a collaborative effort that included other utilities, regulatory staff, market participants and energy efficiency service providers. This day-long event

provided an educational forum that was attended by approximately 65 stakeholders. We also participate in statewide energy efficiency collaboratives, working closely with public utility commissions, non-governmental organizations and other interested stakeholders. For example, in Arkansas, SWEPCo participates in a group known as the Parties Working Collaboratively, or PWC, which has been working together on energy efficiency rulemaking since 2006.

There is nothing as important or effective as developing relationships face-to-face, but the pace of change requires us to find other ways to engage with our stakeholders and to stay in touch more generally. Social media plays a significant role in this evolution, although it will never replace the personal connections we value.

We regularly connect with stakeholders using tools such as email, <u>Facebook</u>, <u>Twitter</u>, <u>YouTube</u>, <u>LinkedIn</u> and <u>blog posts</u>, among <u>others</u>. We can engage those who have an interest in our business, and we can see what people are saying about us, our activities and our industry. This engagement helps us to understand the perceptions some may have and gives us the opportunity to respond or engage if we so choose.

Social media has become a critical tool in our ability to communicate with customers, and they with us, especially during storm restoration efforts. On June 29, the AEP system endured a widespread, straight-line windstorm leaving more than 1.4 million customers, about 26 percent of AEP's 5.3 million customers, without power in five states. It was one of the most severe storms AEP has ever seen, leaving customers in the dark for days during a summer heat wave. During that time, social media proved to be a lifeline for many customers, allowing us to connect them with real-time information and updates on restoration efforts. AEP used Facebook, Twitter and YouTube to share information such as:

- Estimated restoration times and maps
- Public safety messages

Photos and videos of the damage and of crews making

During the restoration effort, Twitter followers and Facebook fans more than doubled for AEP Ohio and Appalachian Power, two of the hardest hit operating companies. AEP and its operating companies were mentioned more than 140,000 times. We also saw a dramatic increase in website visits, with the majority coming from mobile devices. Almost 67 percent of AEP Ohio's Web visits were conducted through mobile devices.

Employees

Our employees define who we are, what we do and how we do it. They bring values, skills, diversity and expertise to AEP that make us unique and successful. As we undergo one of the biggest transformations in the 107-year history of our company, we need a work force that is

Organized Labor at AEP	
Labor Union Number of Em	ıployees
International Brotherhood of Electrical Workers	3,334
Utility Workers Union of America	1,111
United Steelworkers of America	490
United Mine Workers of America	245
International Union of Operating Engineers	2

agile and ready to seize upon new opportunities. In 2012, that meant reevaluating our work force needs and making some changes.

Our industry is in the midst of a major transformation that will have long-term effects on how we run our business. In response, we conducted a study in 2012

to benchmark ourselves with our peers and with other industries. We looked at the size and skills of our work force as well as the efficiency and cost-effectiveness of processes and practices associated with many of our business units. This study allowed us to improve our efficiency by putting people in the right positions with the right skills.

We conducted a separate study of employee and retiree benefits in parallel with the repositioning study. Among the changes resulted from the study are implementation of a cap on the employer subsidy for retirees after Jan. 1, 2013, and elimination of retiree medical benefits for employees hired after Jan. 1, 2014.

Part of this process included an employee culture survey to benchmark AEP's organizational health. The survey identified four pillars of strength:

- Employees care deeply about the company,
- Employees are committed to customer service,
- Employees want to contribute to AEP's success, and
- AEP has a strong safety culture.

The survey also identified some opportunities for improvement. In response, management identified four areas of initial focus. These include:

- Strategic alignment
- Leadership
- Employee engagement
- Performance recognition and accountability

Through a series of nearly 60 employee focus groups held in early 2013, we collected ideas for improvement. For example, some employees said they wanted more face-to-face communication and interaction with leaders and to better understand the interdependencies of different departments. Others asked for clearer information from management that links the company's goals to their jobs. The focus groups were part of a larger initiative to strengthen AEP's culture.

To encourage employee engagement in AEP's success, we instituted the AEP Engage to Gain program in March 2013, providing a way for employees to share ideas that provide tangible and sustainable savings and additional revenues during 2013, and to share potential cash awards. Engage to Gain will take place in 2013 and gives AEP employees the opportunity to share in cash awards for ideas that are implemented and result in operations and maintenance (O&M) savings or incremental revenue over and above an overall target goal. These savings or revenue gains must be sustainable beyond 2013.

We also held 35 employee webcasts in 2012, many of them focused on the organizational restructuring process, led by <u>CEO Nick Akins</u>.

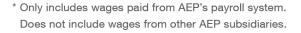
The AEP Now intranet site is the hub of most communications across the company. Employees visited the site approximately 9.2 million times in 2012. A popular feature of the site allows employees to post comments about corporate news, external news stories or internal blog posts. More than 3,000 employees contributed more than 15,000 comments in 2012. Written guidelines help ensure the dialogue is constructive and respectful. Employees may choose to comment anonymously to site editors or publicly share their comments with all employees.

AEP faces an aging work force, with the highest percentage of employees now between ages 45 and 54. We project that approximately 10.7 percent of our work force will retire during the next five years, but many employees will not leave until the latter part of that period. In general, employees everywhere are choosing to work longer because they are healthier and because changes to Social Security make it financially beneficial for them to do so.

2012 AEP Wages Paid by State*

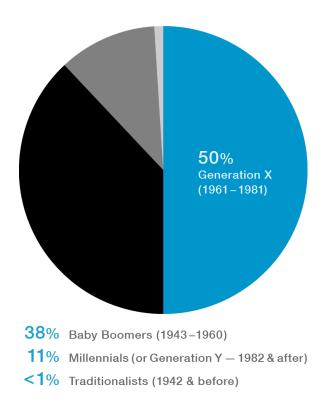
(approximate \$ in millions)

State	Total
Ohio	\$613.4
Texas**	\$195.0
West Virginia	\$165.9
Michigan	\$138.0
Oklahoma	\$117.4
Indiana	\$915.3
Virginia	\$765.2
Louisiana	\$758.8
Kentucky	\$53.2
Arkansas	\$28.8
Missouri	\$18.7
Illinois	\$5.5
Tennessee**	\$4.6
Pennsylvania	\$2.7
Alabama	\$1.7
Nebraska	\$1.5
District of Columbia	\$0.3
Total	\$3,786.0



^{**} Based on federal wages (no state income tax).

2012 AEP Work Force Demographics



Diversity In The Work Force

We value and celebrate the diversity of our work force and of the communities in which we operate. To us, diversity is about ethnicity, gender and age as well as the differences that our employees or community members bring in terms of experiences, skills, ideas, culture and opinions, all of which help to make the work environment, or community, a richer and better place.

We track the advancement of females and minorities from craft-level positions to executive posts. We made progress in 2012 toward achieving our diversity staffing goals even though we continued to have limited staffing opportunities. We will continue to be deliberate in our efforts to fill positions, being mindful that demographics vary greatly across our service territory.

Beyond that, we need to change the ways in which prospective employees view AEP. We want to be seen as a career path, not simply as a utility company.

	Employees	Females	%	Minorities	%
Total Employment	17,939	3,192	17.8%	2,586	14.4%
Officials & Managers	3,306	371	11.2%	266	8.1%
				0.50	45 40
Professionals 2011 AEP Employment Data – El	, ,	1,198	28.0%	658	15.4%
	<u> </u>	1,198 Females	28.0%	658 Minorities	15.4%
	EO -1 (as of Aug. 31, 2011)	,			
2011 AEP Employment Data – El	EO -1 (as of Aug. 31, 2011) Employees	Females	%	Minorities	%

In order to maintain diversity in our employee candidate pool, we have established strong relationships at universities with large minority and female populations, including Texas A&M University, Missouri University of Science & Technology, Howard University, Tuskegee University and the University of Puerto Rico. We also have partnerships with organizations such as the Center for Energy Workforce Development and Hard-Hatted Women to assist us with our diversity recruitment efforts.

Employee resource groups (ERGs) are another valuable asset to help strengthen our work force diversity efforts. They support AEP's values and goals, strengthen communication between AEP and its employees, provide a forum for exchanging new ideas and enhance the company's desirability as a prospective employer. AEP's ERGs are the Asian American Employee Partnership, Hispanic Heritage Employee Resource Group, African American Employee Resource Group, AEP Pride Partnership (for gay, lesbian, bisexual and transgender employees and their allies) and the Military Veterans Employee Resource Group. The last group, the newest to be formed, is a company-wide network enabling increased support for military members, veterans and their families.

Human rights in the workplace are an important social issue for all companies. Recognizing the evolving diversity of our work force, AEP has changed policies, benefits, training and other resources to be more inclusive. The AEP Pride Partnership group worked with the Office of Diversity to improve the company's rating on the annual Human Rights Campaign Corporate Equality Index (CEI). This index has become a benchmarking tool for large U.S. companies in terms of fair, nondiscriminatory treatment of gay, lesbian, bisexual and transgender employees (GLBT) in the workplace. AEP's rating improved to 55 on a scale of 1 to 100, compared with a previous rating of 15. AEP was one of 688 employers rated in the survey.

Customers

Electricity is often taken for granted, yet it is essential to quality of life. Unlike many other businesses, we have a profound responsibility to our customers to deliver our product safely, reliably and on demand, whenever and wherever it is needed.

Part of this responsibility relates to affordability. This is a concern to all customers, but especially those living in poverty and who are paying a high percentage of their disposable income for energy.

The recession and slower-than-expected recovery have taken a toll on many individuals and businesses that were already struggling. Through grants, we provided approximately \$67 million in federal and private energy assistance in 2012, almost 8 percent less than in 2011. This decrease stems largely from lower funding in 2012 of the Low Income Home Energy Assistance Program, or LIHEAP. The LIHEAP program helps low-income families pay their heating and electric bills through cash grants that are paid directly to the utility company. Its funding level varies from year to year based on Congressional action. We also provide other types of aid.

In Ohio, for example, our <u>Neighbor-to-Neighbor Program</u> helps customers who are behind on their bills but whose incomes disqualify them for government assistance. The funds for this program come through customer contributions as well as AEP grants. In addition, AEP has a self-serve agency web site that provides a convenient way for these agencies to make their pledges via the Internet. In 2012, more than 10,000 pledges were recorded, totaling \$1.9 million.

Assistance Provided by AEP to Help Customers Pay	Their Electric Bills		
Company	2010	2011	2012
Appalachian Power Company (APCo)	\$26,990,405	\$29,123,872	\$24,603,033
Kentucky Power (KPCo)	\$9,027,788	\$4,854,412	\$3,013,774
Indiana Michigan Power (I&M)	\$4,586,968	\$9,639,521	\$8,932,951
AEP Ohio	\$18,017,939	\$12,904,096	\$15,946,780
Public Service Company of Oklahoma (PSO)	\$11,281,714	\$10,495,633	\$9,472,320
Southwestern Electric Power Company (SWEPCo)	\$5,407,410	\$6,873,295	\$5,736,545
Totals	\$75,312,224	\$73,890,829	\$67,705,403

Customer delinquency rates are a barometer of the general health of the economy. Despite the slow recovery, we are seeing fewer delinquencies, which is a good sign. Although still higher than 2008 and 2009 levels, residential customer delinquencies continue to decline. As of December 2012, residential customer delinquencies were down 2.5 percent from December 2011. For nonresidential customers, delinquent account balances declined 13.2 percent from 2011. But we did see an increase in the year-end balance of customer payment arrangements year

after year, a trend that remains a concern for AEP. Payment agreements do not guarantee ultimate collection of payments and remain an area of focus for our credit and collections efforts.

AEP prides itself on quick, responsive and consistent customer service. Last year, our call centers received 3.7 million more customer calls than in 2011. The majority of the calls were related to customer outages due to storm damage; customers having difficulty paying their bills because of the slow economy; questions about higher electric rates; questions about the increased gridSMART® activities in Ohio, Oklahoma and Texas; and competition in Ohio. The volume of calls always increases during an outage and, following the derecho in June 2012, our call centers received 2.9 million customer calls, setting a new record for the number of calls handled during a short period of time.

Our average speed of answer (how long it takes to answer a call) increased by 13 seconds from 2011, while the average length of time on the phone with customers increased by four seconds. This increase is directly related to the overwhelming volume of customer calls our customer service centers received during and after the derecho storm. Call volume in 2012 was 19.2 percent higher than in 2011.

In 2012, customers conducted more than 3.4 million online transactions with us. Web traffic dramatically increased after the derecho storm in June. We experienced a 180 percent increase in overall transactions. We also saw 18 percent growth in paperless billing, with approximately 609,124 residential, commercial and industrial customers receiving their bills electronically. By early 2013, 42 percent of customer bill payments are being processed electronically. Online bill pay and electronic billing is a sweet spot for us and our customers; it is more efficient and eco-friendly and enhances customer satisfaction.

AEP and its national accounts team received the "Award for Outstanding National Key Accounts Customer Service – Sustained Excellence" from the Edison Electric Institute (EEI). This award is presented on behalf of all national, multi-site customers by the EEI customer advisory group. AEP is one of three companies to receive this award designation, which recognizes multi-year success in exceeding customers' expectations and meeting their unique needs.

Strong Communities

Being a responsible corporate citizen goes beyond the fence line of our property to the heart of the communities in which we operate or that we serve. Our investments in our communities range from the thousands of hours our employees volunteer locally to corporate financial support for important community programs and initiatives. The need for our support is greater than ever as many areas continue to struggle economically.

Corporate philanthropy is also important because it helps enhance quality of life, advances education and other worthy endeavors and enriches communities. In 2012, AEP and the AEP Foundation donated more than \$17.5 million to support more than 2,400 community organizations.

2012 Total Philanthropic Giving		
(Corporate and AEP Foundation)		
State	Total	
Arkansas	\$402,617	
Indiana	\$1,676,751	
Kentucky	\$683,785	
Louisiana	\$310,152	
Michigan	\$758,142	
Ohio	\$6,506,851	
Oklahoma	\$927,013	
Tennessee	\$89,745	
Texas	\$2,030,412	
Virginia	\$1,190,441	
West Virginia	\$1,798,735	
Other*	\$1,320,197	
Total	\$17,694,841	
* Giving to organizations outside AEP's Service area or those that benefit multiple states.		

In Mena, Ark., for example, the AEP Foundation presented a grant for \$38,000 to the University of Arkansas Foundation to fund improvements to the Polk County 4-H Education Center. It will support youth and adult education and enrichment programs in Polk County by providing a versatile space to meet many needs in the community. The AEP Foundation focuses on improving lives through education from early childhood through higher education through its ongoing charitable initiatives.

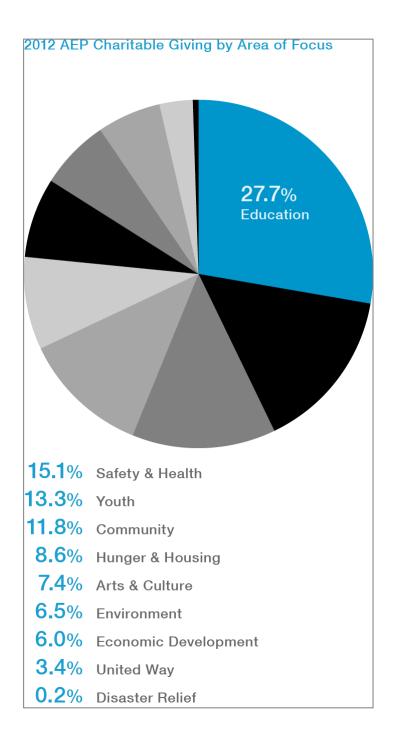
A \$150,000 AEP Foundation grant for the Indiana Tech Energy Engineering Program was used to support curriculum, faculty and laboratory development for the university's

Bachelor of Science in Energy Engineering degree. The program focuses on sustainable energy sources such as wind, solar, geothermal, biofuels and fuel cells, and also includes a business component. The field of energy engineering is changing quickly, and support from the AEP Foundation will provide Indiana Tech with the flexibility to add and keep existing materials and programs relevant, offer faculty training opportunities, and purchase software and equipment for students to use in the classroom in a hands-on, real-life experiential way. The gift will enable Indiana Tech to continue to increase the number of students admitted into the program and the means to educate students about the efficient production, delivery and use of energy.

Other commitments made in 2012:

• A \$100,000 AEP Foundation grant to the Ohio University Foundation for the Watershed Research and Fellowship Program of the George V. Voinovich School of Leadership and Public Affairs Center for Energy Workforce Development for the 2013. Funding will enable student recruitment and improve stream restoration across the region through existing and future partnerships.

- A \$100,000 corporate gift to Living Lands and Waters of East Moline, Ill., for environmental and educational programs, including river clean-up efforts in the Mississippi and Ohio river watershed regions.
- A \$50,000 AEP Foundation grant to the Consortium for Education Research &
 Technology (CERT) of North Louisiana for high school summer camps promoting
 energy careers. CERT serves as the intermediary the convener and facilitator that links
 five Louisiana post-secondary systems with industry to support work force development,
 technology transfer and economic development in North Louisiana.
- A \$40,000 AEP Foundation grant to the Keystone Center for the Climate Status Investigations and Youth Policy Summit Programming. The Keystone Center for Education, in partnership with the AEP Foundation, hosted two innovative education programs attended by students from The Metro Early College Learning High School in Columbus, Ohio, and CSI: Climate Status Investigations, a professional development training for teachers in Roanoke, Va. The Keystone Center's Youth Policy Summit challenges high school students to address the critical issue of energy resources in the state.
- A \$50,000 AEP Foundation grant to the Texas Tech Foundation for creating the Dick Brooks Endowed Graduate Fellowship and non-endowed grant for Smart Grid Energy Center.



Sustainable Procurement

We work with fuel and nonfuel suppliers to drive continuous improvement and efficiencies within the supply chain while improving environmental and safety performance. We ask suppliers about their sustainability strategy and activities through our procurement process, and we advise them of opportunities to help them reduce or mitigate their impacts on natural resources.

AEP's Supplier Development group performs operational assessments of our key or critical suppliers. Since 2008, they have assessed more than 200 manufacturing facilities, evaluating five key operational areas: Quality, operational efficiency, responsiveness, health and safety and environmental/sustainability practices. These assessments proved especially beneficial for one of our suppliers who used the operational assessment to improve its business and become a successful bidder to AEP. The company was open to learning how to address the issues that had been identified and a year later made substantial improvements that resulted in winning a larger portion of AEP's business.

AEP also works directly with its fuel suppliers and surveys its coal suppliers on their environmental, safety and health performance. We have conducted three <u>surveys of our coal suppliers</u>, a commitment we made to stakeholders to better understand the lifecycle of coal, its impacts on the environment, how our suppliers are addressing those impacts and to share leading practices.

"It should always be our value and norm to procure quality that includes attributes that reflect resource stewardship, environmental sensitivity and fair labor practices. This is a growing cultural requirement that AEP can continue to exercise leadership in our industry and globally." - AEP Stakeholder

The AEP Sustainability Survey of Coal Suppliers is the only known survey of the coal industry that reflects an assessment of about one-half of the coal mined in the United States and nearly every coal basin in the country. The final report on the results of the third survey was issued in December 2012, based on 2010 data. Key findings include a high level of safety and health performance in 2010 along with an increase in the number of coal suppliers issuing annual sustainability reports.

This survey gives us important insights into the environmental, safety and health performance of the coal industry - validating that we share common values and strive to achieve excellence in managing our impacts to the environment and keeping employees safe. We have learned much about our suppliers, and they have learned about their own industry through this process. For example, a majority of respondents have programs that include training, job safety analysis programs, risk assessments and wellness programs.

We surveyed the coal suppliers who participated in the survey to ask them how they use the data and whether it provides value to them. The overwhelming response was that the survey provides great value, especially regarding environmental performance because it's the only such benchmark of the industry. Some suppliers also said they use the data in their own sustainability reports and to help drive continuous improvement within their companies. Our 2013 survey will collect data for 2011 and 2012.

As we diversify our resource mix, we will consider how to engage with other fuel suppliers, particularly within the natural gas industry.

- 2011 Coal Supplier Survey Final Report (pdf)
- 2010 Coal Supplier Survey Final Report (pdf)
- 2009 Coal Supplier Survey Final Report (pdf)
- GRI Mining and Metals Sector Supplement Supplier Matrix (pdf)