

# FOCUS *on* SUSTAINABILITY



2013 REPORT ON SUSTAINABILITY







# Table of CONTENTS



## About the FSC label

The FSC Mixed Sources label on the back cover signifies that this report is printed on paper certified by the Forestry Stewardship Council. This paper product supports the development of responsible forest management world-wide. The wood for the paper comes from FSC-certified well-managed forests, company-controlled sources and/or recycled material (the paper used for this report has 10 percent post-consumer recycled content).

Company controlled sources are controlled, in accordance with FSC standards, to exclude illegally harvested timber, forests where high conservation values are threatened, genetically modified organisms and violation of people's civil and traditional rights.

AMP also prints its quarterly Amplifier magazine, annual report, calendar and letterhead on FSC-certified paper. The publications are produced with sustainable soy- and vegetable-based inks.

**On the cover:** AMP provides a variety of services, including wetland delineation and assessments, to assist member communities in managing their environmental needs and compliance.

- 4 Letter from the President & Chairman of the Board of Trustees
- 6 AMP's Approach to Sustainability
- 7 Overview of AMP's 2013 Report on Sustainability
- 8 AMP's Sustainability Principles
- 10 Key Sustainability Accomplishments in 2013
- 12 **ECONOMY**
  - Organizational Overview
  - Financial Strength
  - Financial Summary
  - AMP Member Credit Scoring/Monitoring Program
  - Generation Portfolio
  - Hydroelectric Construction Progress
  - Efficiency Smart™
- 16 **ENVIRONMENT**
  - Emissions Profile
  - Decommissioning R.H. Gorsuch Station
  - Other Environmental Mitigation Measures
  - EcoSmart Choice®
  - Green Team Initiatives
  - Forestry Carbon Offset Projects
- 21 **COMMUNITY/SOCIETY**
  - Worker Health and Safety/Training
  - APPA RP3® Program
  - Communications & Outreach
  - Awards to Member Communities
  - Member Sustainability Reporting Initiative
  - Scholarships
  - Charitable Giving
- 25 AMP's Sustainability Performance at a Glance
- 26 AMP Members & Geographic Footprint



# Letter from the PRESIDENT & CHAIRMAN OF THE BOARD OF TRUSTEES



*The theme of AMP's 2013 Report on Sustainability – “Focus on Sustainability” – is very appropriate as we mark the completion of our third comprehensive annual report. Since 2011, AMP has built on the foundation of previous years' sustainability efforts to refine our reporting capabilities and metrics in order to better reflect and track progress along AMP's sustainability journey.*

Bringing these efforts into “focus” by using sustainability as a core AMP principle is one way to enhance our achievements toward growing and diversifying our generation portfolio, reducing and offsetting emissions, helping our members save energy, fostering strong and stable member communities, and being responsible stewards.

We note that our efforts to use sustainability as a focal point of our operations have been on the leading edge of much of the public power community, and we are seeing a broader interest in sustainability and performance metrics based on sustainability among various public power stakeholders, including municipal bond markets, financial advisers, and their customers. With conservative investors often looking to municipal bonds for stable returns, the fact that an entity has a forward-looking business approach based on sustainability can be the factor that tilts the balance toward one investment over an otherwise comparable one. AMP envisioned this possible result when we first adopted our Environmental Stewardship Principles back in 2005; the



*Jon A. Bisher, Ph.D., AMP Board of Trustees Chairman and City Manager, Napoleon, Ohio (left), and Marc S. Gerken, PE, AMP President/CEO*

continued fragility of the nation's economic recovery and the search for lower-risk investments have apparently helped this come to fruition.

Our 2013 Report on Sustainability compares progress made throughout the year and reports other metrics that demonstrate the breadth of AMP's commitment to sustainability through economic, environmental, and societal measures and actions. As always, we welcome your feedback.

*On behalf of the members,*

Marc S. Gerken, PE  
AMP President/CEO

Jon A. Bisher, Ph.D., AMP Board of Trustees Chairman  
and City Manager, Napoleon, Ohio



## AMP's Approach to SUSTAINABILITY



*American Municipal Power, Inc. (AMP) is the Columbus-based nonprofit wholesale power supply and services provider for 129 members in seven states, including 128 member communities that operate municipal electric systems – 83 in Ohio, 29 in Pennsylvania, six in Michigan, five in Virginia, three in Kentucky, and two in West Virginia – and the Delaware Municipal Electric Corporation, Inc., which is a joint action agency representing nine municipal electric systems in the state of Delaware.*

Owned and governed by its members, AMP is dedicated to providing value-added member services and cost-competitive power supply. AMP also serves as project manager for groups of municipal electric communities participating in joint ventures and other structures to share ownership of power generation and related facilities.

AMP and its members are committed to achieving sustainable balance between being responsible corporate citizens, governmental entities, employers, and environmental stewards while simultaneously maintaining a supply of cost-competitive, reliable electric power for our members' retail customers.

AMP believes that the best way to achieve the desired balance between sometimes competing considerations is through the consistent application of the concept of sustainability as a focused business practice. AMP defines "corporate sustainability" as a business approach that creates long-term member value by maximizing opportunities and minimizing risks related to a host of economic, environmental, and community or societal considerations.

AMP employs the concept of a "three-legged stool" to explain how these considerations must be in balance for sustainability to be achieved. The three legs of the sustainability stool are "ECON-

OMY," "ENVIRONMENT," and "COMMUNITY or SOCIETY."

To properly support sustainability as a business approach, all three legs have to be present and given relatively equal consideration when business deci-

sions are made. Remove one leg of the stool and it topples over – there is no foundation for a strictly sustainable corporate decision. Give one leg of the stool greater emphasis than the others, and the unbalanced platform on which the decision is based will not allow it to be sustained over time – it, too, will lean and eventually fail.

The nature of AMP's members as units of local municipal government underscores the long-term sustainability vision that prevails at AMP. An organization cannot effectively practice sustainability while having its eye solely on the next quarterly report to shareholders. Conversely, public power utilities are governed and operated as public services for their citizens for the betterment of their communities. Through its members, AMP deploys programs and projects to provide reliable, cost-competitive and environmentally responsible generation development, operations, and technical support; environmental management; business development; project financing; education and training; and energy efficiency and conservation as part of an overall corporate strategy of sustainability.

AMP and its members continue to make significant investments in the development, construction and management of a variety of sustainable generation projects including efficient coal, natural gas, wind, hydroelectric and solar projects which provide a balanced, yet diversified portfolio of power supply options for our members. In addition to developing its own generation assets, AMP also is able to secure other needed capacity – including renewable wind and landfill gas – for its members through the use of power purchase agreements (PPAs). The latter approach helps to further diversify AMP's power supply mix while reducing financial and project risk to members.



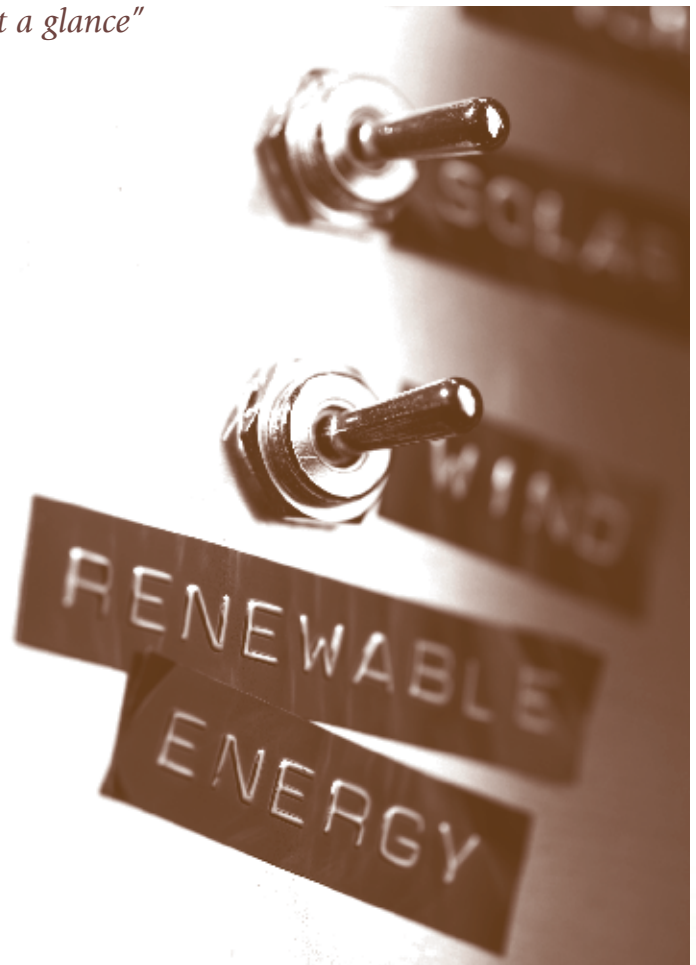
## Overview of AMP's 2103 REPORT ON SUSTAINABILITY



*AMP's 2013 Report on Sustainability is focused on presenting information relating to its sustainability efforts from the 2013 calendar year, and comparing that performance to 2012 (and in some cases additional prior years) whenever practicable. In addition to being addressed in the text, the most pertinent data are presented in a summary "at a glance" comparison table located at the end of this report.*

This report is meant to be viewed as an accompanying document to other AMP and Efficiency Smart™-prepared annual reports that cover a much broader scope of activities within the organization. However, as a stand-alone document, AMP's 2013 Report on Sustainability provides a good focus on AMP's progress along its sustainability journey.

The 2013 report is organized with several introductory sections, followed by three major chapters, representing the three legs of the "sustainability stool" – ECONOMY, ENVIRONMENT and COMMUNITY / SOCIETY. Major accomplishments and data from various AMP programs and projects are provided in the most appropriate of these three chapters. Readers should note that, because the concept of sustainability requires a balancing of all three primary components, many of the reported results (from the identified projects and programs) could easily be discussed in different chapters.





## AMP's SUSTAINABILITY PRINCIPLES

+

*In 2005, the AMP Board of Trustees first adopted a set of Environmental Stewardship Principles to help guide the organization. Modified in 2009, these principles were again revised in 2011 to reflect the broader nature of "sustainability" (i.e., vs. "stewardship") for AMP's business model and were renamed "Sustainability Principles."*

In 2013, AMP's Board of Trustees reviewed and revised AMP's Sustainability Principles as part of the organization's efforts to keep current with evolving environmental trends, issues, and technologies and to more accurately reflect the evolving nature of AMP's mission, vision, priorities, and actions. One goal of this Report on Sustainability is to reflect the accomplishments and progress with regard to these principles and to report such

to member communities, other stakeholders, and the public. As appropriate and as approved by AMP's Board of Trustees, these Sustainability Principles may be subsequently supported by the establishment of more specific goals, targets, and other performance standards that can be measured and reported. The Sustainability Principles approved by the Board in 2013 are listed on the facing page.

*Behind-the-meter solar generation such as AMP's 3.54-megawatt Napoleon Solar Facility helps produce transmission savings and provide enhanced reliability to members. It also helps diversify power supply portfolios and reduce emissions profiles. AMP plans to add more behind-the-meter solar generation in its member communities.*





### *Principle #1 – PROVIDING A BALANCED AND SUSTAINABLE POWER SUPPLY PORTFOLIO*

AMP is committed to providing our members with a variety of options for meeting their power supply needs. This includes maintaining a balanced portfolio of generation projects, power purchase agreements, and a project development pipeline that includes cost-effective fuel and generation technology options. This also means using energy efficiency and load control as meaningful tools in power supply planning to reduce the need for new generation resources.

### *Principle #2 – REDUCING OUR OVERALL EMISSIONS PROFILE*

AMP is committed to reducing its overall emissions profile. Reductions of airborne emissions can be achieved through the use of efficient coal and natural gas and other lower- or zero-emission generation technologies (including hydroelectric and other renewables), supply-side or end-use efficiency improvements, and conservation activities. Improvements in energy and operational efficiency and use of efficient coal and natural gas technologies at the generation level will also reduce water usage and need for landfill space. Mindful that emissions of greenhouse gases (GHGs) will be limited at some point in the future, AMP will prudently invest in projects to offset carbon dioxide and other GHG emissions from our fossil generation resources. AMP also encourages efforts to account for and reduce GHG emissions by individual AMP member communities, which promotes balancing their system needs with other stewardship and customer values.

### *Principle #3 – USING LESS*

AMP recognizes that electricity not generated – because it is not needed – yields the greatest environmental benefit and is essential to a truly sustainable business approach. Reducing electricity demand through innovative conservation efforts and efficiency improvements offered to AMP member communities will help conserve natural resources as well as reduce emissions. AMP will also promote the “reduce, reuse, recycle” principles of sustainability to its membership and employees and throughout its operations.

### *Principle #4 – MAKING SMART INVESTMENTS*

AMP is faced with finding new power supply options to meet member needs. Volatile energy markets and aging generation resources have spurred AMP to make smart investments in efficient coal, nat-

ural gas, hydroelectric, landfill gas, and solar generation assets to mitigate overexposure to the wholesale market. AMP will continue to pursue incorporating other cost-effective renewable resources as an important part of our generation portfolio and will endeavor to use any available favorable local, state, or federal regulatory treatment when siting and financing these projects.

### *Principle #5 – ASSISTING MEMBER COMMUNITIES*

AMP member municipal electric systems are critical components in the success of the communities they serve. Investment of capital – both financial and human – in AMP member communities is essential to ensuring a good quality of life and encouraging economic development and growth. AMP provides ongoing employee training, safety instruction, project engineering, and other technical services to ensure that member communities have access to the most up-to-date services in these areas. Environmental enhancements (planting trees, creating green space, etc.) are also valuable assets to local communities, and AMP will provide technical support and work with interested member communities to identify energy efficiency, carbon management, and sustainable investment and development opportunities consistent with local needs.

### *Principle #6 – REACHING OUT TO STAKEHOLDERS*

AMP will reach out to other stakeholder entities – including (but not limited to) government, business, academia, media, and other utility organizations – to ensure that they understand AMP’s mission and vision and AMP’s approach to sustainability. This outreach is intended to help AMP identify potential future collaborative opportunities beyond those traditionally associated with providing electric power supply. AMP encourages member communities to identify potential partnership opportunities as well.

### *Principle #7 – LEADING BY EXAMPLE*

AMP encourages its officers and employees to lead by example through increased efforts to reuse and recycle home and office products and conserve energy, both at home and in the workplace. To the extent practicable, AMP will strive to use its headquarters building to demonstrate the use of green materials and energy efficient products, thus leading by example. AMP will report its sustainability and environmental stewardship actions on both a quarterly and an annual basis and, where possible, measure its success in achieving the goals laid out by these Sustainability Principles.

# Key Sustainability Accomplishments IN 2013

## + HYDROELECTRIC PROJECTS

Construction progress continued throughout 2013 on four run-of-the-river hydroelectric projects located at the Cannelton, Smithland, Meldahl, and Willow Island locks and dams on the Ohio River. AMP owns, through a separate nonprofit wholly owned, limited-liability company, the Meldahl hydro project, which it is developing with the member community of Hamilton. Hamilton retains the rights for a 51 percent share of the output of that project and will operate the project. AMP's work on these projects marks the nation's largest run-of-the-river hydroelectric construction effort, which will provide 300 megawatts (MW) of new capacity when completed. Because these resources are key to the long-term sustainability of our members' power supply portfolios and thus their local economies, we are including a discussion of various construction milestone updates in the ECONOMY section of this year's report.

*Construction progresses at the Cannelton hydroelectric project. The 84-megawatt facility, located on the Cannelton Locks and Dam near Hawesville, Kentucky, is one of four projects comprising the nation's largest run-of-the-river hydro construction effort.*





# EFFICIENCY\$MART<sup>®</sup> + DECOMMISSIONING COMPLETED

## + EFFICIENCY SMART<sup>™</sup> SURPASSES ANOTHER MILESTONE

AMP's Efficiency Smart<sup>™</sup> program provided energy efficiency services to 49 subscribing AMP member communities in 2013. Initiated in 2011, Efficiency Smart<sup>™</sup> was originally designed to save participants 81,000 megawatt-hours (MWh) of energy by the end of 2013 – a goal which the program passed in March 2013. In addition, AMP and the Vermont Energy Investment Corporation (VEIC) inked a new contract in July to extend the operation of the Efficiency Smart<sup>™</sup> program through 2016. More details on Efficiency Smart<sup>™</sup> are included in the ECONOMY section of this year's report.

## + MEMBER SUSTAINABILITY REPORTING INITIATIVE

In 2013, AMP began developing a reporting template in Microsoft Excel and Word format that members could use to develop their own sustainability reports. Refinements have been added in 2014. Details on this effort can be found in the COMMUNITY / SOCIETY section.



## ECONOMY



### ORGANIZATIONAL OVERVIEW

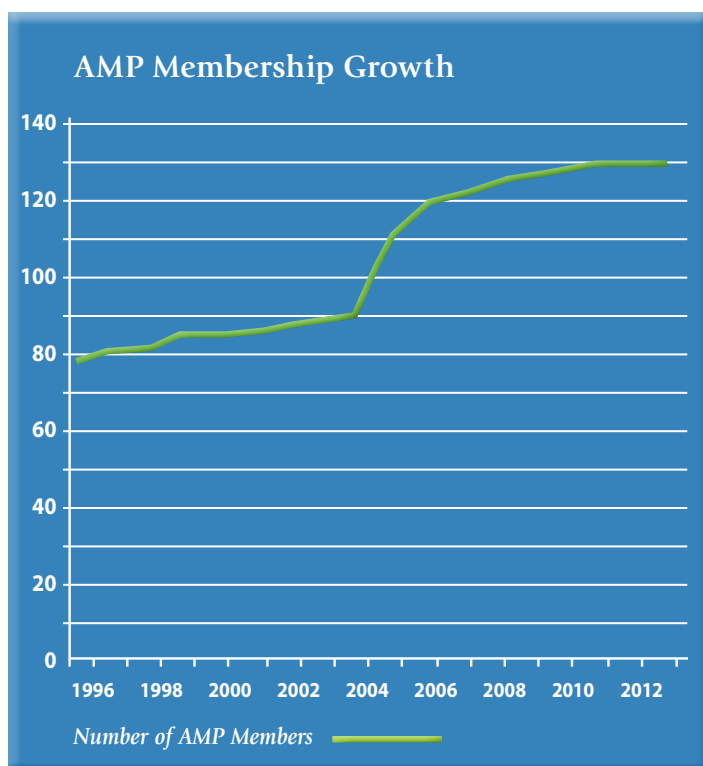
*Strategic organizational growth is essential to AMP's sustainability vision. Since 1996, AMP's membership has grown by more than 65 percent and expanded from Ohio to include six other states: Delaware, Kentucky, Michigan, Pennsylvania, Virginia and West Virginia.*

The Delaware Municipal Electric Corporation (DEMEC) joined AMP in 2011, adding to AMP's eastern U.S. presence. A map of AMP's footprint states, communities, and key facilities is located on the inside back cover of this report.

This organizational growth has provided substantial benefits for AMP's membership in the form of heightened economies of scale, enhanced services and a larger influence footprint. From a staffing standpoint, in 2013, AMP employed approximately 160 employees at the headquarters and at generating assets. The AMP employment numbers do not include the hundreds currently employed through various contractors in conjunction with hydroelectric plant construction or other entities involved with most operational functions at the AMP Fremont Energy Center (AFEC), through our contract with Vermont Energy Investment Corp. (VEIC) for Efficiency Smart™ or at the Prairie State Energy Campus, of which AMP is a 23.26 percent owner.

### + FINANCIAL STRENGTH

In 2013, Moody's Investor Service reaffirmed AMP's A1 issuer rating for the sixth straight year, which signifies AMP's strong credit position and that of its members. This ultimately results in lower project financing costs – and thus more savings for customers.







Downtown Oberlin

## + AMP MEMBER CREDIT SCORING/ MONITORING PROGRAM

Realizing the organization was about to embark on a large capital-intensive building program, AMP staff developed a credit scoring program for its members from criteria utilized by the three primary rating agencies (i.e., Moody's, Fitch and Standard & Poors) in 2006. Subsequently, this credit scoring policy was approved by the AMP Board of Trustees and used by AMP staff in calculating credit scores upon the receipt of a member's annual audit. Credit scores are reported to the AMP Board monthly as audits are received.

The credit scoring program has increased awareness with members as to critical areas relating to a municipality's credit. The goal of the program is to enhance the financial soundness and creditworthiness of the entire AMP membership and is expected to enhance the credit of participating members in all current refinancings and future AMP project financings. The average AMP member credit score has increased an average of 17 percent from the inception of the program.

The credit scoring policy is reviewed regularly with scoring criteria updates made as dictated by changes in rating agency financial metrics and approved by the AMP Board. In addition, AMP staff conduct educational meetings for members on current topics in finance and accounting and other information throughout the year.

## AMP Financial Summary

*From Consolidated Statements of Revenues and Expenses  
Years Ended Dec. 31, 2013 and 2012*

	2013	2012
<b>Revenues</b>		
Electric revenue	\$953,077,162	\$797,996,283
Service fees	9,648,054	6,697,162
Programs and other	19,769,641	19,042,794
Total revenues	982,494,857	823,736,239
<b>Operating expenses</b>		
Purchased electric power	610,212,025	555,589,498
Production	66,589,310	36,190,145
Fuel	113,312,952	118,934,119
Depreciation and amortization	57,578,445	38,748,939
Administrative and general	9,829,551	6,343,378
Property and real estate taxes	3,561,677	1,667,407
Programs and other	18,714,669	17,386,909
Total operating expenses	879,798,629	774,860,395
Operating margin	102,696,228	48,875,844
<b>Nonoperating revenues (expenses)</b>		
Interest expense	(118,680,542)	(60,467,853)
Interest income, subsidy	13,550,548	6,226,152
Interest income, other	6,017,591	7,125,095
Other, net	1,694,974	151,381
Total nonoperating expenses	(97,417,429)	(46,965,225)
Net margin	\$5,278,799	\$1,910,619

## + AMP'S GENERATION PORTFOLIO

One of AMP's overarching goals is to provide cost-competitive power supply options to its members, while remaining true to its sustainability approach. In the past, a large portion of AMP's owned, operated or purchased supply included units fueled by older coal facilities, which on average supply more than 50 percent of the electricity capacity throughout AMP's footprint states. Until 2011, AMP's coal-fired portfolio was supplied by the recently decommis-

sioned 213-MW Richard H. Gorsuch Station (closed in December 2010), member-owned coal-fired units and market purchases.

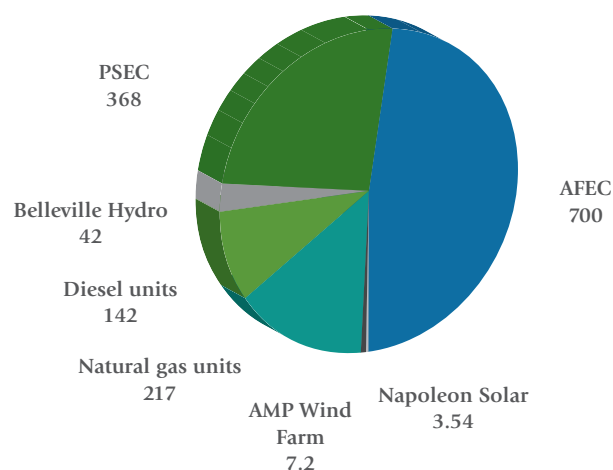
With the addition of new generation resources in 2012, AMP's power supply portfolio has changed considerably, providing members with the opportunity to replace a portion of their market purchases with new efficient coal, natural gas and solar projects as additions to the portfolio of AMP-owned assets. The AMP Fremont Energy Center (AFEC), a nominal 700-MW natural gas combined cycle (NGCC) generating plant, began commercial operation in January 2012. The Prairie State Energy Campus in southern Illinois – of which AMP owns 23.26 percent on behalf of its participating members – is a two-unit, 1,600 MW state-of-the-art efficient mine-mouth coal plant that also became commercially available in 2012. Finally, the 3.54-MW Napoleon Solar facility came online in August 2012. Together, these three assets added more than 1,000 MW of capacity to AMP's power supply portfolio in 2012. No new generation was added in 2013.

Also under AMP development at this time are more than 350 MW of new run-of-the-river hydroelectric generation (300 MW currently under construction). Other generation secured through power purchase arrangements (PPAs - e.g., wind and landfill gas) further diversifies AMP's power supply portfolio. As these units come online or are added to AMP's portfolio, their contributions will be included in future sustainability reports.

At the end of 2013, AMP's existing portfolio of owned and/or operated energy generation assets included the following:

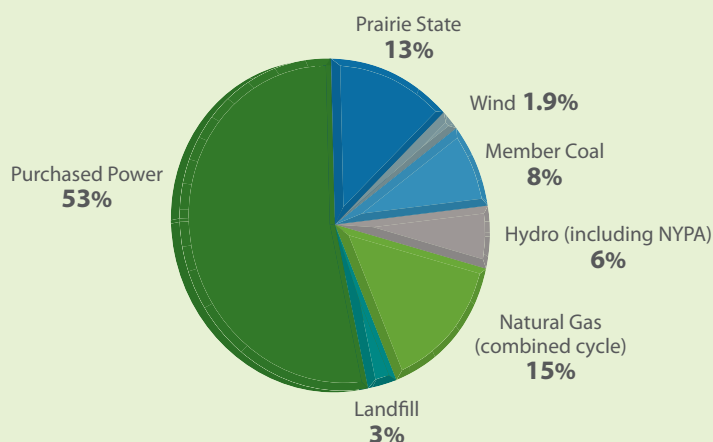
### 2013 AMP Owned/Operated Assets

(Capacity in MW)



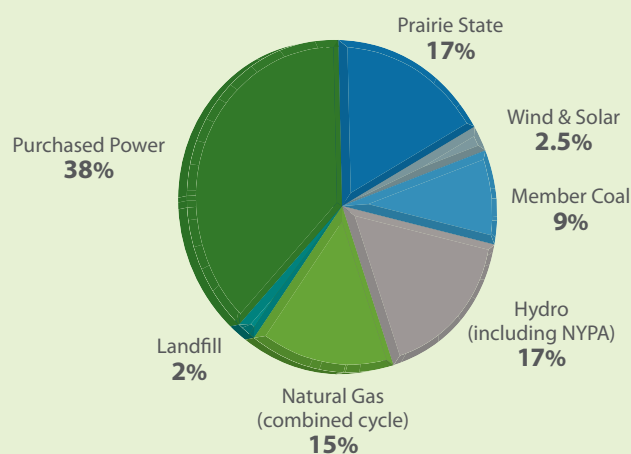
### 2013 AMP Member Energy Resource Mix

(16,400,000 MWh)



### 2016 AMP Member Projected Energy Resource Mix

(16,600,000 MWh)



#### Notes to 2013 & 2016 charts

- The Member Coal figure includes the participation of AMP members Paducah and Princeton in PSEC through the Kentucky Municipal Power Association.
- The Wind & Solar percentage includes member-owned solar.
- The Hydro percentage includes member-owned hydro.

As seen in a comparison of the 2013 and 2016 energy resource mix charts, the purchased power (market) portion is projected to decrease 15 percent by 2016. A major contributing factor is the addition of AMP's new hydroelectric assets and solar development, which will also expand the amount of energy produced by renewable resources to slightly more than 21 percent.



- AMP Fremont Energy Center – nominal 700 MW
- Prairie State Energy Campus (AMP share) – 368 MW
- Belleville Hydroelectric Plant – 42 MW
- Various diesels units (distributed generation) – 142 MW
- Various natural gas units (distributed generation) – 217 MW
- AMP Wind Farm – 7.2 MW
- Napoleon Solar Facility – 3.54 MW

AMP and individual member-owned generation (e.g., coal, hydroelectric, natural gas, diesel, landfill gas, and solar) contributed 7,767,484 MWh of generation towards total AMP system energy usage in 2013. Market purchases (including bilateral power purchases) provided 8,643,217 MWh of additional energy towards the total 2013 AMP system energy usage of 16,410,701 MWh. Please see the preceding charts for comparison of 2013 energy needs against 2016 projected energy needs for AMP. Note that the purchased power (market) portion changes dramatically with the addition of AMP's new hydroelectric assets.

## + HYDROELECTRIC CONSTRUCTION PROGRESS

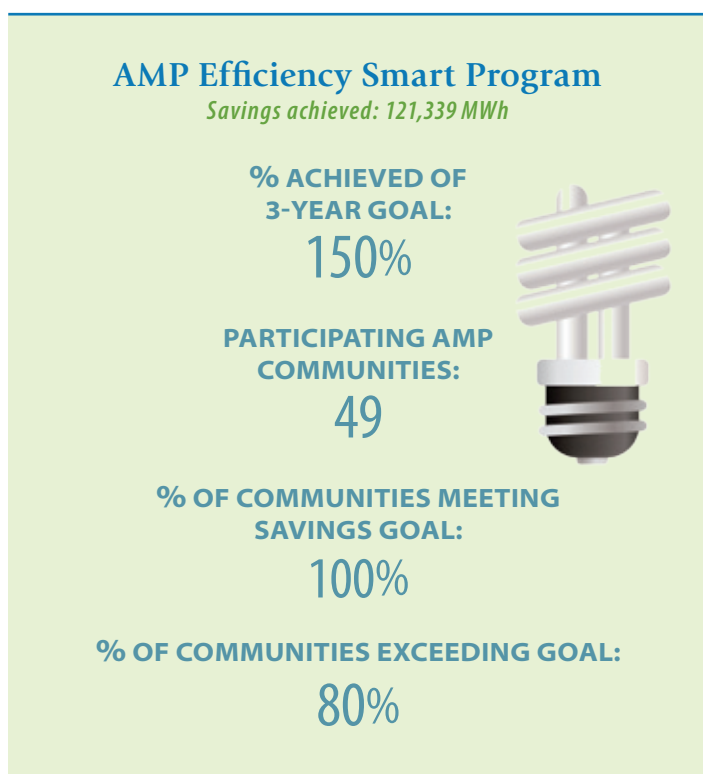
Construction progress continued throughout 2013 on four run-of-the-river hydroelectric projects located at the Cannelton, Smithland, Meldahl, and Willow Island locks and dams on the Ohio River. AMP's work on these projects marks the nation's largest run-of-the-river hydroelectric construction effort, which will provide 300 MW of new capacity when completed. AMP continues its development work on one additional hydroelectric project currently in the Federal Energy Regulatory Commission (FERC) licensing and permitting stage of development (R.C. Byrd) in conjunction with its member community Wadsworth, Ohio, which would add approximately another 50 MW of hydro capacity in the future.

At AMP's Cannelton site near Hawesville, Kentucky, structural powerhouse concrete construction was complete at the end of 2013, and other concrete work was 78 percent complete. The project will add 84 MW of clean energy capacity to AMP's power supply portfolio.

At the other active hydro construction sites, 2013 also proved to be a year of a significant progress. Structural concrete placement at the Smithland site, near Smithland, Kentucky, was 63 percent complete, with nearly 60,000 cubic yards in place by the end of the year. Smithland is projected to add 76 MW of hydroelectric capacity when completed. Structural concrete placement at the Willow Island site (35 MW, near St. Marys, West Virginia) was 66 percent complete at the end of 2013, with over 48,000 cubic yards placed. Finally, the 105-MW Meldahl project near Maysville, Kentucky, had 98 percent of its structural concrete placed by the end of 2013.

## + EFFICIENCY SMART™

2013 marked the third year of AMP's very successful Efficiency Smart™ program, which provided energy efficiency services to 49 subscribing AMP member communities in 2013. Initiated in 2011, Efficiency



Smart™ was originally designed to save participants 81,000 MWh of energy by the end of 2013 – a goal which the program passed in March 2013. In addition, AMP and the Vermont Energy Investment Corporation (VEIC) inked a new contract in July to extend the operation of the Efficiency Smart™ program through 2016; Efficiency Smart™ is a separate entity from AMP with its own staff and budget.

The 49 AMP members that were enrolled in the program in 2013 realized a three-year total of 121,339 MWh of energy savings (or 150 percent of the program's three-year MWh savings target) across residential, commercial, and industrial service classes. Strong industrial savings led the way, accounting for 46 percent, or 56,254 MWh, of the 121,339 MWh saved from 2011 through 2013, with commercial a close second at 43 percent, or 52,328 MWh. Residential savings accounted for 11 percent, or 12,757 MWh.

Efficiency Smart™ also sponsored savings opportunities through residential initiatives that included efficient-product rebates, appliance-recycling incentives and efficient lighting. In 2013, residential customers redeemed rebates for 1,124 items that were among seven qualifying products (which included refrigerators, clothes washers and dehumidifiers). In addition, customers at 926 residences accepted a \$50 incentive to recycle old, inefficient refrigerators and freezers. Responding to discounts Efficiency Smart™ offered in 2013 through point-of-sale lighting campaigns and its online lighting store, customers purchased 19,308 compact fluorescent light bulbs (CFL). Efficiency Smart™ also distributed nearly 94,000 CFLs through activities such as community outreach and incandescent trade-in events. By the end of 2013, the project pipeline for Efficiency Smart™ had identified 450 individual projects, potentially accounting for an additional 36,826 MWh of savings.

## ENVIRONMENT



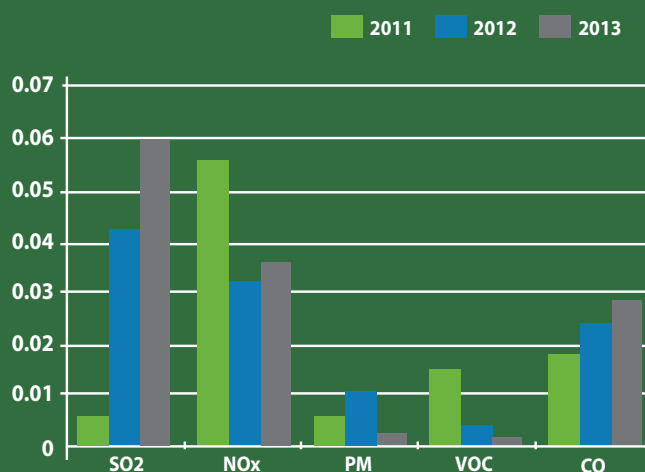
### EMISSIONS PROFILE

*Cleaner fuel standards combined with more efficient units continue to drive down emissions from fossil-fueled electric generating units nationwide. In addition, a major reduction in the allowable amount of SO<sub>2</sub> in diesel fuel in particular has driven down emission rates from diesel units to below those of natural gas units in many cases.*

AMP's emission rates for criteria pollutants in 2013 reflect these developments but also the addition of more than 1,000 MW of fossil generation to AMP's power supply portfolio in 2012 and increased utilization of those units in 2013. CO<sub>2</sub> emission rates increased from 144.2 lbs/mmBtu in 2012 to 166.8 lbs/mmBtu in 2013, attributable primarily to AMP's share of the Prairie State Energy Campus.

Emissions are measured via monitors on some units and also are calculated according to accepted EPA methodology based on periodic testing and fuel sampling. All 2013 emissions were below permitted levels. Please see page 25 for actual criteria pollutant emissions reported (in tons).

#### Emission Rates of AMP Owned Units



Emission rates of criteria pollutants from AMP units in lbs/million Btu.



## + DECOMMISSIONING R.H. GORSUCH STATION

AMP completed decommissioning activities at the site of the former Richard H. Gorsuch Station near Marietta, Ohio, in 2013. Environmental restoration of the 45-acre site, which formerly hosted a 213-MW coal-fired generation facility that closed in 2010, was nearly completed by the end of 2013; the photos at right show progress to fill and reseed the area at the end of 2013, as compared to earlier in the year when considerable debris was still on site.

Decommissioning of the facility included removing asbestos and other hazardous materials from the site, demolishing existing structures, and closing the former coal ash disposal landfill – all in accordance with applicable state and federal environmental statutes. As noted in last year's Report on Sustainability, the landfill was closed and groundwater monitoring wells installed by the end of 2012, and other site remediation activities have now been completed, with over 20,500 gross tons of various metal waste recycled in total.

AMP continues to evaluate possible brownfield use of the Gorsuch site on the Ohio River for such activities as material handling or other uses, thus providing some additional economic development options for the area and value for project participants.

## + OTHER ENVIRONMENTAL MITIGATION MEASURES

As with the decommissioning of the Gorsuch Station site, AMP's generation construction activities bear the responsibility for mitigating possible environmental damages to local areas. AMP continues to maintain three wetlands constructed in 2008 (totaling 12 combined acres of aquatic habitat) at the site of a planned and subsequently cancelled generation construction project in Meigs County, Ohio, which provide habitat protection for the Ohio-endangered Eastern spadefoot toad on nearly 70 acres of conservation easements. AMP continues to explore options for the site and maintains Ohio Power Siting Board certificates.

AMP also has performed environmental mitigation activities as conditions of its FERC licenses and other regulatory requirements for the various hydroelectric projects currently under construction. These include payment of financial compen-







AMP's forestry carbon offset project at Hellbender Bluff Park in Columbiana County, Ohio, features the planting of native hardwoods on 185 acres of abandoned strip-mined land. The project is a collaboration among AMP, the Columbiana County Park District and the Appalachian Regional Reforestation Initiative/Green Forests Work.

sation, consideration of conservation easements or other environmental protection for adjoining properties, purchasing additional acreage to compensate for land cleared for transmission lines, etc. AMP continues to work with regulatory agencies and local communities to identify other possible site improvements, including future fishing and recreational areas and reforestation activities.



#### + ECOSMART CHOICE®

EcoSmart Choice® is AMP's green-pricing program, which offers to member communities the opportunity to support additional renewable development without altering their power supply. While many AMP communities currently support renewable energy projects through direct participation and/or contractual ownership, some end-use customers in these communities want to be sure they are supporting renewable energy development as much as they can on an individual basis. EcoSmart Choice® enables participating AMP member communities to extend the benefits of renewable generation to their end-use customers, regardless of their power supply mix. Green pricing programs such as this rely on the use of renewable energy certificates (RECs) to offset the customer's electricity usage. Customers' participation in EcoSmart Choice® is supported by the purchase of wind, hydroelectric, landfill gas or other qualifying RECs, which helps stimulate new renewable project development. The program is open to both residential and commercial/industrial customers.

At the option of the participating AMP member community, residential customers who choose to join EcoSmart Choice® are able to offset varying levels of their monthly electric usage (25 percent, 50 percent, 75 percent, or 100 percent) with renewable energy for an additional base cost of \$0.005 per kWh. For example, if a customer uses 750 kWh in a month and is participating at the 100 percent level, the EcoSmart Choice® program will purchase an equal number of RECs to match that monthly usage, and the customer would pay an additional \$3.75 (\$0.005 X 750) as part of their utility bill that month to cover their participation in the program.

Customers in participating member communities are generally able to sign up for the program via the website ([www.ecosmartchoice.org](http://www.ecosmartchoice.org)), phone call or visit to the utility office, or response post card – depending on the options provided by the local utility. Customers can join or drop out at any time, with no penalty. In 2013, six AMP communities participated in this program, and nearly 5,600 MWh of traditional generation was offset with the purchase and retirement of qualifying RECs.





## + GREEN TEAM INITIATIVES

In 2011, AMP reorganized its existing Green Team to add staff members that have the ability to drive initiatives within their respective departments and the organization as a whole. Based on discussions with fellow employees and amongst themselves, the Green Team developed a list of possible projects for the AMP headquarters building and then evaluated and prioritized those projects based on cost, energy savings, ease of implementation, and other factors.

In 2013, AMP continued to implement a number of the Green Team's initiatives, including installation of efficient light-emitting-diode (LED) fixtures in the garage, to outside bollards and soffits, and, most notably, to the exterior parking lots. (The photos at right show "before and after" shots of AMP's rear parking lot.) AMP also was able to convert toilets in the building to units that use less water per flush. Green Team staff will be evaluating energy and water savings attributable to these initiatives over the coming years.

The Green Team continued to promote the concept of vehicle trip elimination or consolidation by pointing out monetary and energy/emissions savings that could be achieved through carpooling for or packing lunch. For example, a solo trip by an AMP employee away from the office every day to get a sandwich can easily total more than 1,000 miles annually on a car's odometer. Using the U.S. vehicle average of 21 MPG at \$3.50 per gallon, that



*Before and after: High-efficiency LED lighting brightened the rear AMP headquarters parking lot considerably after a 2013 installation project.*



*AMP Green Team members (from middle to right) Mike Schilling, Alice Wolfe and Emily Park look on as Evolved Lighting Solutions workers install efficient lighting in the AMP headquarters lobby.*

means that employee can spend more than \$166 annually just to go to lunch. At that rate, the environmental impact of those daily trips can add more than 900 pounds of carbon into the atmosphere annually. Staff members were made aware that packing lunch or carpooling with others can both save money and reduce your carbon footprint.

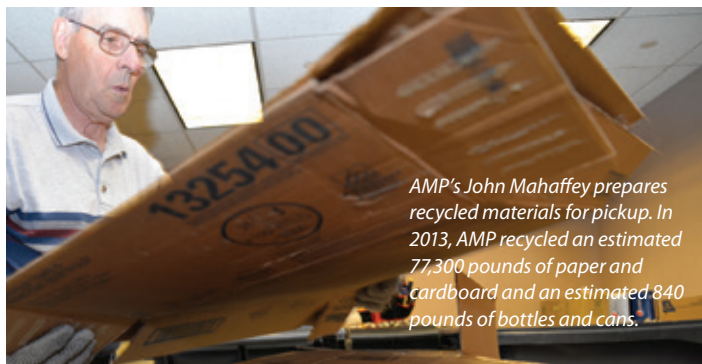
Improving AMP's recycling program at its headquarters has been a priority for the Green Team since its inception. In 2013, building on the improvements made to the program in 2011:

- An estimated 77,300 pounds of paper and cardboard waste was recycled at AMP headquarters.
- An estimated 840 pounds of glass and plastic bottles and aluminum and steel cans was recycled at AMP headquarters, filling a 95-gallon container about every nine days (i.e., about 2,500 gallons of metal, glass, and plastic waste recycled in 2013).

## + FORESTRY CARBON OFFSET PROJECTS

The reduction of carbon dioxide (CO<sub>2</sub>) and other greenhouse gases (GHGs) remains a priority for many environmental organizations and policy makers. AMP was a member of the Chicago Climate Exchange (CCX), a voluntary cap-and-trade effort established to reduce GHGs, from 2007 through the program's end in





2010. Through its CCX participation, AMP reduced its CO<sub>2</sub> emissions in excess of its 6 percent requirement and gained invaluable knowledge and experience regarding carbon markets and emissions trading.

One approach that AMP is employing as the debate over the appropriate level of atmospheric GHGs continues is to invest in projects that “offset” a portion of the CO<sub>2</sub> emissions from its fossil-fueled generation facilities. Such “carbon offsets” can be created when specific, measureable actions are undertaken that result in reduced emissions of CO<sub>2</sub> into the atmosphere. The accumulation of CO<sub>2</sub> and other GHGs in the atmosphere, whether naturally occurring or the result of burning fossil fuels, is viewed as contributing to global climate change. By reducing – or “offsetting” – emissions of CO<sub>2</sub> from AMP’s fossil-fueled electric generation operations, the organization is demonstrating its continuing commitment to sustainability.

AMP continues to work with states, communities, and private entities in its member footprint states to identify, evaluate, and develop appropriate carbon offset projects that use the natural growth process of trees to hold (or “sequester”) CO<sub>2</sub> in the living wood, roots, and forest soils, thus preventing its escape to the atmosphere. It typically takes six to ten years of tree growth before appreciable carbon offsets can be calculated. Specific scientific protocols have been established to measure



the accumulation of carbon in trees (based on species, age, climate and other criteria), and AMP will be using these protocols to certify any future carbon offsets that are expected to result from our forestry carbon projects.

AMP’s forestry carbon offset project at Hellbender Bluff Park in Columbiana County, Ohio, was completed in 2012 on 185 acres of abandoned strip-mined land. The project is a collaboration among AMP, the Columbiana County Park District (which retains the actual ownership of the land and will be responsible for the sustainable management of the new forest), and the Appalachian Regional Reforestation Initiative/Green Forests Work (which also assisted with the acquisition and interspersed planting of a number of hybrid American chestnuts among the other hardwoods planted on the site).

This project joins AMP’s first forestry carbon project, which was completed in 2010 at Shawnee State Forest in southern Ohio. The Shawnee project involved the planting of over 17,000 native seedlings on 25 acres in partnership with the Ohio Department of Natural Resources – Division of Forestry. AMP staff continues to identify possible partners for additional forestry carbon offset projects in other AMP footprint states and began a process to solicit carbon offsets and carbon offset projects through an RFP at the end of 2013.





## WORKER HEALTH AND SAFETY/TRAINING

*Worker health and safety are critical to the safe operation of AMP's member electric systems. AMP staff conduct regular safety classes for member communities and also provide lineworker training sessions at AMP headquarters.*

AMP took a step forward in 2013 by adding a "Safety Minute" discussion to each month's Board of Trustees meeting, led by AMP's environmental health and safety manager, who also initiated the bolstering of internal safety policies and procedures for AMP. AMP staff also covered health and safety topics in several brown bag luncheon presentations to fellow staff in 2013.

## + APPA RP3® PROGRAM

APPA's Reliable Public Power Provider (RP3®) program exemplifies all that is great about local public ownership of electric utilities. The purpose of the RP3® program is to encourage public power utilities to operate an efficient and reliable distribution system by

# Community/ SOCIETY



*Lineworkers from AMP member communities ready a mannequin for poletop rescue techniques during an AMP training class in Columbus.*



demonstrating proficiency in four important disciplines: reliability, safety, work force development, and system improvement. Utilities submit an application to the RP3® program for a peer-evaluation review. The RP3® award is not a lifetime designation – through 2013 it was valid for two years, but is increasing to three in 2014. Utilities wanting to maintain reliability “bragging rights” must apply for RP3® designation every three years. AMP member participation in the RP3® program continues to grow, as does their level of recognition.

## + COMMUNICATIONS & OUTREACH

With 129 members in seven states, AMP’s efforts to provide timely and effective communication are key. AMP regularly uses its weekly Update publication, the quarterly Amplifier magazine, the Public Power Connections newsletter for customers in member communities, AMP’s website ([www.amppartners.org](http://www.amppartners.org)), Facebook, LinkedIn, online member directory and member extranet, email updates, and other essential avenues of communication to help get out the public power message and promote sustainability to AMP members, staff, and the public.

*In 2013, AMP members gaining RP3® recognition (awarded for the 2014-2015 period) included:*

### DIAMOND LEVEL: PLATINUM LEVEL:

Piqua, Ohio  
Bowling Green, Ohio  
Cleveland, Ohio  
Coldwater, Michigan  
Dover, Ohio  
Ephrata, Pennsylvania  
New Martinsville, West Virginia  
Wyandotte, Michigan

### GOLD LEVEL:

*The above listed communities joined the following 15 AMP member communities who also held RP3® recognition in 2013 (awarded in 2012 for the 2013-2014 period):*

### PLATINUM LEVEL:

Bryan, Ohio  
Danville, Virginia  
Hamilton, Ohio  
Hillsdale, Michigan  
Paducah, Kentucky  
Painesville, Ohio  
Princeton, Kentucky  
Shelby, Ohio  
Wapakoneta, Ohio  
Westerville, Ohio  
Cuyahoga Falls, Ohio  
Marshall, Michigan  
Oberlin, Ohio  
Orrville, Ohio  
Versailles, Ohio

### GOLD LEVEL:

Training can help...

Improve *performance*  
Increase *knowledge*  
Expand *skills*  
Boost *safety*

**2013-2014 AMP Training Catalog**

AMP • 1111 Schrock Road, Suite 100 • Columbus Ohio 43229 • Tel. 614.540.1111 • Fax 614.540.3061 • [www.amppartners.org](http://www.amppartners.org)

AMP developed several new tools for educating members in 2013, including a new brochure on AMP’s general safety and Occupational Safety and Health Administration (OSHA) compliance programs, and a catalogue of various training programs offered throughout the year. These are updated as needed to keep current offerings available to interested members. AMP also initiated a new certification program in 2013 for local policymakers, offering a series of six program sessions (to be offered twice annually) covering topics such as electric utility 101, electric utility governance, AMP organizational overview, power supply overview, financial issues, and legislative/regulatory issues. Individuals who complete the series are awarded certification and are recognized at AMP’s annual conference. The breadth of issues covered is consistent with AMP’s broad view of sustainability.

## + MEMBER SUSTAINABILITY REPORTING INITIATIVE

In 2013, AMP began developing a reporting template in Microsoft Excel and Word format to assist members in creating their own reports describing local sustainability efforts and progress. The template uses the member’s power supply data and participation in various AMP programs, plus member-owned generation if applicable, to numerically and graphically depict the member’s renewable generation, emissions, carbon footprint, etc. This tool can create appropriate graphics that can be included in a municipal electric system’s communications with local elected officials, customers, and other interested stakeholders.



## + AWARDS TO MEMBER COMMUNITIES

Each October, AMP holds an awards banquet in conjunction with its annual conference, where AMP member communities and individuals are recognized for their contributions to public power. A list of those communities honored at the 2013 banquet and their awards follows.

### AMP FINANCE AWARDS

- Highest Credit Score Population 5,000 and Over – City of Danville
- Highest Credit Score Population Under 5,000 – Village of Clinton
- Most Improved Credit Score – Borough of Ephrata

### AMP INNOVATION AWARDS

- Hudson Public Power, for its automatic vehicle location project
- Oberlin Municipal Light and Power System, for its Energy Advocacy and Assessment Service
- City of Wadsworth Electric & Communications, for its Smart Grid Phase 2: Home Area Network & Customer Engagement

### AMP SYSTEM IMPROVEMENT AWARDS

- Bryan Municipal Utilities, for the 34.5 kV Switch Project
- Cuyahoga Falls Electric System, for LED Streetlight Retrofits and 87L Protective Relay
- Dover Light & Power, for Coal Storage Facility and System Improvement Project
- City of Dover, for the Dover Chemical Isolation Project
- Village of Genoa, for Downtown Street Lighting Project
- Hudson Public Power, for AMR Metering Installation, LED Re-Lamping and Substation Security projects
- City of Napoleon, for Glenwood Feeder Project and Oil Containment
- Philippi Municipal Electric, for New Housing and Alderson Broadband University, Anglin Run Project and the Benedum Upgrade
- Village of Pioneer, for Pole Replacement Project
- St. Clair Borough Electric Light Department, for Entire Electric Distribution Conversion/Upgrade and AMI Meters Installation
- City of Shelby, for Main Street LED Lamp Post Lighting
- Village of Versailles, for Cremer Road Electric Upgrades Project and LED Street Lighting Pilot Program
- City of Westerville, for New Underground 69 kV Cable Project

### PUBLIC POWER PROMOTION AWARDS

- Division 2 – St. Clairsville Light & Power for the Light Up the Holidays program
- Division 3 – Dover Light & Power Public Power Week Open House
- Division 4 – Painesville Electric System 125<sup>th</sup> Anniversary Celebration “Party At the Plant”
- Division 3 (Honorable Mention) – Hudson Public Power, for its Touch-A-Truck event
- Division 4 (Honorable Mention) – Cuyahoga Falls Electric System, for its Public Power Promotion & Consumer Awareness program
- Division 4 (Honorable Mention) – City of Wadsworth Electric & Communications, for its CityLink Branding and Application

### AMP ENVIRONMENTAL STEWARDSHIP AWARDS

- City of Cuyahoga Falls Electric System, for Public Involvement and Volunteerism Programming for Environmental Stewardship
- Hudson Public Power, for Green on the Green program
- Oberlin Municipal Light & Power System, for Super Rebate program
- St. Clairsville Light & Power, for Bad to Good then Green program

### 2013 AMP SAFETY AWARD – GENERATION

- Bryan Municipal Utilities
- Dover Light & Power
- Oberlin Municipal Light & Power System
- Orrville Utilities – Power Plant Operations

### 2013 AMP SAFETY AWARD – TRANSMISSION & DISTRIBUTION

- Bryan Municipal Utilities
- Danville Utilities Department
- Dover Light & Power
- Borough of Ephrata Electric Division
- Genoa Municipal Utilities
- Hudson Public Power
- Kutztown Electric Department
- Minster Electric Department

- Montpelier Municipal Utility
- New Martinsville Municipal Electric Utility
- Newton Falls Electric Department
- Oak Harbor Public Power
- Oberlin Municipal Light & Power System
- Orrville Utilities
- Philippi Municipal Electric
- Pioneer Light Department
- St. Clairsville Light & Power
- Shelby Division of Electric and Telecommunications
- Village of Versailles Utilities
- City of Wadsworth Electric & Communications
- Wapakoneta Electric Department

### 2013 AMP SAFETY COMMENDATION – GENERATION

- Orrville Utilities – Power Plant Maintenance

### 2013 AMP SAFETY COMMENDATION – TRANSMISSION & DISTRIBUTION

- City of Columbus Division of Power
- Cuyahoga Falls Electric System
- Village of Lodi Utilities



AMP staff, spouses, children and guests participate in AMP's 2013 Day of Giving, which promotes AMP values and sustainability goals. They were spreading mulch at the City of Columbus' Livingston Park.

## + SCHOLARSHIPS

AMP recognizes that the future depends on the capabilities of the next generations. Education is a staple of sustainability, and AMP's learning focus has been to stress the importance of science and energy education throughout elementary, middle, and high school grades and more recently into the university setting. As AMP's current employee base ages, its needs for engineers and other technical- and scientific-degreed graduates increases, further increasing the importance of quality education to AMP's future.

In 2013, AMP provided eight scholarships for a total of \$16,000 to eligible high school seniors. The scholarships are awarded in memory of Lyle B. Wright and Richard H. Gorsuch, distinguished leaders in Ohio's public power history. Since the program's beginning in 1988 through 2013, AMP has presented 147 scholarships for a total of \$240,000.

## + CHARITABLE GIVING

AMP has facilitated the participation of its employees in supporting a number of local charities through voluntary paycheck withholding over the years. In 2013, the following charities were supported, with staff donating a total of nearly \$8,900 (an increase of more than 30 percent over 2012): Children's Hunger Alliance, Faith Mission, Mid-Ohio Foodbank, Special Olympics, and Westerville Caring & Sharing.

In addition, AMP staff generously supported Faith Mission and Lutheran Social Services, both located in AMP's hometown of Columbus, Ohio, for the 2013 holidays. Staff donated about 300 pounds of items for both food pantries and the Faith Mission shelter, going a long way to helping those in need in the Columbus community.

AMP also sponsored a "day of giving" in 2013, with more than 20 AMP staff and their friends and family members helping to rehab a playground in Columbus, Ohio. The "day of giving" was adopted

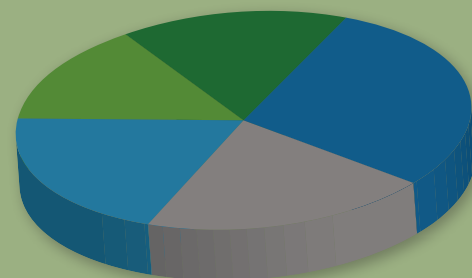
by AMP based on prior successful efforts led by our national trade association, the American Public Power Association (APPA), during its annual convention.

## + CONCLUSION

The information presented in the 2013 AMP Report on Sustainability – Focus on Sustainability – is intended to provide readers with a snapshot of AMP's overall approach to sustainability, covering all three major legs of the sustainability stool – economy, environment, and community/society. With this year's Report on Sustainability, we continue to provide transparent measurements of our progress on our sustainability journey, comparing 2013 performance to the prior year. Future progress will be reported in future reports.

If you would like more information on AMP's efforts, please contact Julia Blankenship, director of energy policy & sustainability, at [jblankenship@amppartners.org](mailto:jblankenship@amppartners.org) or 614.540.0840

### AMP STAFF CHARITABLE GIVING - 2013



■ Westerville Caring & Sharing
 ■ Faith Mission  
■ Children's Hunger Alliance
 ■ Special Olympics  
■ Mid-Ohio Foodbank



# AMP's Sustainability Performance AT A GLANCE

	2012	2013
<b>AMP Organization and Financial Metrics</b>		
Number of member communities	129	129
Load (in million MWh)	16.1	16.4
System peak (in MW)	3,494	3,503
Electric revenue (in \$)	\$797,996,283	\$953,077,162
Service fees (in \$)	\$6,697,162	\$9,648,054
Programs and other revenue (in \$)	\$19,042,794	\$19,769,641
Operating expenses (in \$)	\$774,860,395	\$879,798,629
Net margin (in \$)	\$1,910,619	\$5,278,799
Number of employees (as of 12/31)	140	147

<b>Power Generation (in net MWh)</b>		
Prairie State Energy Campus (AMP share)	1,121,878	2,076,643
AFEC	3,369,114	2,708,704
Belleville Hydro	219,497	284,731
Distributed generation	15,111	15,953
AMP Wind Farm	14,452	14,582
Napoleon Solar	1,554	5,270

<b>Efficiency and Other Offsets to Traditional Generation</b>		
Efficiency Smart -		
cumulative generation savings since 2011 (in MWh)	54,660	121,339
% of 2011-2013 targets	72.4%	149.8%
EcoSmart Choice (green energy sales in MWh)	6,188	5,661

<b>Health &amp; Safety</b>		
Employee work-related fatalities	0	0
Reportable incidents or accidents	3 <sup>1</sup>	0
Lost work-day incidents	2 <sup>2</sup>	0

<b>Environment</b>		
Permit violations	1 <sup>3</sup>	1 <sup>4</sup>
Fines or penalties	0	0
NPDES permit exceedences	0	0
Total heat input		
- all generating units combined (in mmBtu)	37,710,923	38,787,347
CO2 emissions (in short tons)	2,718,532	3,235,408
Annual CO2 emission rate (in lbs / mmBtu)	144.177	166.828
SO2 emission (in short tons)	784	1,159
Annual SO2 emission rate (in lbs / mmBtu)	0.042	0.060
NOx emissions (in short tons)	612	699
Annual NOx emission rate (in lbs / mmBtu)	0.032	0.036
PM emissions (in short tons)	201	64
Annual PM emission rate (in lbs / mmBtu)	0.011	0.003
CO emissions (in short tons)	458	560
Annual CO emission rate (in lbs / mmBtu)	0.024	0.029
VOC emissions (in tons)	67	32
Annual VOC emission rate (in lbs / mmBtu)	0.004	0.002
Hazardous waste disposed		
(manifested from RHGS demolition, in short tons)	768	1,217
Cooling water usage (net, in million gallons)	725	358
Recycled metals (RHGS demolition, in gross tons)	3,583	20,573
AMP HQ recycled paper and cardboard		
(estimate, in pounds)	77,100	77,300
AMP HQ recycled glass, metal, and plastic		
(estimate, in pounds)	790	840
Forestry carbon projects		
- cumulative acres of trees planted	210	210

<b>Community</b>		
Number of scholarships awarded	8	8
Value of scholarships awarded	\$16,000	\$16,000
AMP employee charitable giving		
(payroll deduction in \$)	\$6,781	\$8,880

1 Employee-operated vehicle was struck by animal. Two incidents in Forestry Department.

2 On-the-job injury to Forestry Department employee - two separate incidents.

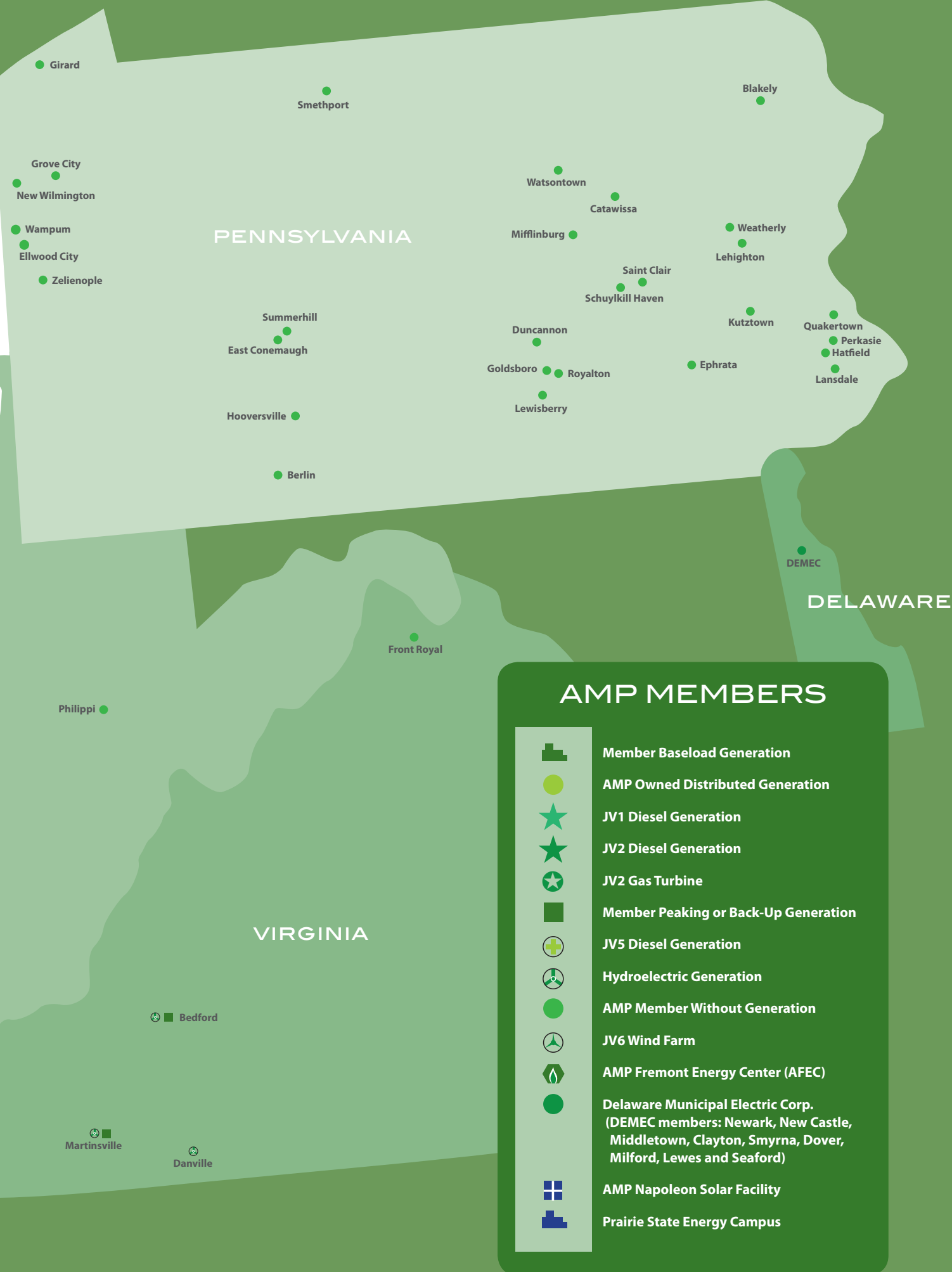
3 Construction storm water minor violation at Napoleon Solar Facility.

4 Minor reporting violation at R.H. Gorsuch Station.

Financial metrics from AMP Consolidated Statements of Revenues and Expenses









American Municipal Power, Inc.  
1111 Schrock Road, Suite 100  
Columbus, Ohio 43229  
614.540.1111  
[www.amppartners.org](http://www.amppartners.org)



For more information contact:  
Julia Blankenship, director of energy  
policy & sustainability  
[jblankenship@amppartners.org](mailto:jblankenship@amppartners.org)

