We began commercial operation of eight out of 11 turbines on our new hydroelectric plants in 2016 – a project 10 years in the making. This marks a transition into cleaner, renewable carbon-free energy for our members, helps diversify our portfolio and eliminates a great deal of construction risk. The three remaining turbines are scheduled to come online in 2017.

We reached finality on the AMPGS project, had successful operations and worked through issues that arose at the AMP Fremont Energy Center (AFEC), and continued to see improvements at the Prairie State Energy Campus.

To combat transmission costs and meet peaking needs, we formed a relationship with NextEra Energy Resources LLC on a Solar Phase II project for the construction and operation of up to 80 megawatts (MW) or more of new solar electric generation facilities. We’ll report more on the project in the generation section (page 13).

The AMP Board of Trustees and CEO finalized the 2015 succession plan as we look forward to 2020. The plan was very successful in implementing the transition from Bob Trippe, who retired on July 1, 2016, to Marcy Stockman, now senior vice president of finance and CFO. The plan also proved successful with the transition to co-general counsels Rachel Gerrick and Lisa McAlister from John Bentine when he retired in February 2017. These changes come on the heels of Pam Sullivan and Jolene Thompson both being named executive vice presidents in early 2016.

We also progressed on implementing the recommendations from the member focus groups that were conducted in 2015. Details can be found in the strategic plan section (page 10).

With our hydro projects wrapping up, AMP will now focus on the organization’s transition from construction to operation and stay vigilant to our members and their needs in this ever-changing industry.
American Municipal Power, Inc. (AMP) is the nonprofit wholesale power supplier and services provider for 135 members, including 134 member municipal electric systems in Ohio, Pennsylvania, Michigan, Virginia, Kentucky, West Virginia, Indiana and Maryland; as well as the Delaware Municipal Electric Corporation, a joint action agency with nine members headquartered in Smyrna, Delaware. Combined, these member utilities serve more than 650,000 customers.

The organization is governed by a Board of Trustees that consists of 21 AMP members – 20 elected by the members or subgroups of members and AMP member Delaware Municipal Electric Corporation (DEMEC), on behalf of its nine member systems. Each such elected member then appoints a person to represent it on the Board.
AMP’s strategic planning process has been an excellent means to maintain focus on specific priorities, refine program priorities with members and keep an eye to the future of the industry. Since the AMP Board of Trustees updated the strategic plan in 2014, tremendous work has been accomplished on the designated initiatives. This includes the addition of three new members in 2016: Paris, Kentucky, in April; and Berea, Kentucky, and Delta, Ohio, in September.

Also in 2016, AMP implemented recommendations from the member focus groups conducted in 2015, which included phasing out the forestry program, restructuring Efficiency Smart to offer à la carte options, replacing the consumer newsletter Public Power Connections with a social media feed, and restructuring fees and contracts for OSHA and Circuit Rider offerings.

The Board is moving forward with strategic plan updates in 2017 as there is new representation on the AMP Board, and current changes in Washington, D.C. and the industry could affect AMP’s strategic focus.

AMP and its projects continued to be recognized for their financial strength in 2016.

Moody’s Investors Service (Moody’s) released an issuer comment in March regarding AMP’s hydroelectric units, stating the planned launch was credit positive for AMP and participating members. In September, Moody’s Global Ratings assigned its A rating to AMP’s combined hydroelectric project revenue bonds.

In April, Moody’s also affirmed both the A1 issuer rating with a stable outlook on AMP and the A1 rating with a stable outlook on the AMP Fremont Energy Center (AFEC) Project Revenue Bonds. Fitch affirmed its A rating with a stable outlook on the AFEC Project Revenue Bonds in May.

Fitch also affirmed its A rating on AMP’s Prairie State Energy Campus Revenue Bonds in 2016, with an upgrade from “Negative” to “Stable.”

The Greenup Hydroelectric Project financing received ratings in April: A1 from Moody’s, A from Standard and Poor’s and A– from Fitch Ratings. AMP sold par bonds totaling $125,630,000 to purchase a 48.6 percent share of the Greenup hydro facility from City of Hamilton in May.

On July 13, AMP sold par bonds totaling $80,050,000 to finance amounts for the Meldahl project. The bonds were rated in the A category by all three rating agencies and the final sale resulted in an all-in rate of 3.37 percent – a nearly historic low, according to Bank of America Merrill Lynch.
AMP spent almost three years in due diligence on a hosted solutions approach to members on the distribution side and advanced metering infrastructure (AMI) was the biggest driver of rolling out this type of approach. With the help of the AMP Board and pilot members, AMP took the AMI program from concept to operation. The AMP back office IT infrastructure is currently being set up and Ephrata, Pennsylvania, became the first member to subscribe in the fall of 2016. Installation began in January 2017.

AMP’s SCADA team continued to provide support to Power Supply and Planning, Billing, Energy Control Center (ECC), Generation Facilities and AMP members throughout the year. This included implementation of the Corporate PI system, and SCADA metering requirements at the new hydro facilities.

AMP IT staff continues to assist with corporate and generation-related IT needs as well as monitor cybersecurity. AMP takes security threats very seriously and is constantly learning about new trends, potential threats and how to prevent them.

AMP’s strategic coordination of peak-shaving was successful throughout the hot summer of 2016 during the five coincident peaks (5 CPs) and transmission one coincident peak (1 CP). This resulted in more than $60 million value of transmission and capacity savings from AMP and members’ behind-the-meter generation for the upcoming planning and calendar years.

AMP also leveraged the soft energy markets by negotiating and executing longer-term remaining requirements energy contracts for 22 members.

Solar Phase II

In the spring of 2016, AMP executed a solar power purchase agreement with DG AMP Solar LLC, a wholly owned subsidiary of NextEra Energy Resources LLC, for the development, construction and operation of up to 80 MW or more of new solar electric generation facilities. Construction began on a 20 MW site located in Bowling Green (the largest solar installation in Ohio) in late July 2016 and the project went into commercial operation in January 2017. Solar installations in Marshallville and Prospect, Ohio, also went into commercial operation in early 2017. Additional sites are under development in Ohio, Virginia, Michigan and Delaware. The project provides not only peaking energy, but also capacity and transmission savings.
The City of Hamilton and AMP held a dedication ceremony for the official opening of the Meldahl Hydroelectric Plant on June 2. The event celebrated the state-of-the-art facility – the largest hydro generation facility on the Ohio River – and featured remarks from federal, state and local officials, and AMP Board of Trustees members. Meldahl was declared in full commercial operation in April 2016.

AMP held a hydroelectric celebration and dedication for combined projects Cannelton, Willow Island and Smithland on Oct. 18 at the Willow Island hydro facility in St. Marys, West Virginia. Present for the event were more than 80 federal, state and local officials, participating community officials, consultants, and AMP and National Hydropower Association staff. Speakers included U.S. Sen. Shelley Moore Capito (R-WV), who serves on the Appropriations Committee, the Environment and Public Works Committee, the Rules and Administration Committee, and the Commerce, Science and Transportation Committee.

Willow Island became fully operational in February 2016, followed by Cannelton in June 2016. The Smithland plant is expected to be in commercial operation in 2017.
AMP Fremont Energy Center (AFEC)

AMP completed the first scheduled Unit 2 combustion turbine (CT2) hot gas path maintenance outage during March/April 2016. AFEC experienced an unplanned CT2 forced outage event starting in April with the unit successfully returned to service in early June. The plant performed well over the summer period. Starting in late September, AFEC experienced an unplanned steam turbine forced outage event with the steam turbine and plant returned to service in early December. AFEC finished the year setting new records for most energy generated in a month and highest monthly net capacity factor (both set in February 2016).

Prairie State

The Prairie State Energy Campus continued to improve in 2016. The plant finished out the year strong, setting new marks for the following in December:

- Most energy generated in a month by the Prairie State: 1,179,112 MWh.
- Highest plant capacity factor (based on 1,582 MW plant rating): 100.2 percent.
- Most energy generated in a month by Unit 2: 586,735 MWh.
- Highest Unit 2 capacity factor (based on 791 MW plant rating): 99.7 percent.
- Second-most energy generated in a month by Unit 1: 592,357 MWh.
- Second-highest Unit 1 capacity factor (based on 791 MW plant rating): 100.6 percent.

Unit 1 set its generation record in October 2016 with net generation of 593,735 MWh.
As part of AMP’s response to a changing and evolving industry, and at the direction of the Board, AMP established an initiative called “Focus Forward.” Part of that effort was the creation of the Focus Forward Advisory Council in spring 2016, which represents a cross section of members, including rate consultants, attorneys, and elected officials and appointed staff from 12 member communities in three states, together with AMP staff. Another key component of the initiative was the release of an extensive member toolkit at the AMP/OMEA Annual Conference. The toolkit includes a rate design guide, interconnection checklist and member case studies. The toolkit, as well as a resource library of distributed energy resources, are available on the Member Extranet section of the AMP website under “Focus Forward.”

AMP members now have more flexible energy efficiency options available through the rollout of Efficiency Smart 3.0. The revamped program offers a wide range of products and services at different price points to serve members of all sizes and levels of efficiency needs. Visit www.efficiencysmart.org or contact Randy Corbin at rcorbin@amppartners.org for more information.

AMP’s EcoSmart Choice program welcomed a ninth member in October 2016, the City of Hudson. The program is designed to offer a green pricing option for individuals and companies who are interested in purchasing up to 100 percent renewable energy through the purchase of renewable energy certificates (RECs). Participating communities purchased more than 43,000 MWh of green power through the program in 2016. More detailed information regarding AMP’s sustainability, including reforestation efforts and environmental filings, can be found in the separate 2016 Sustainability Report.

AMP had significant success from the transmission team in 2016 on strategies that will help members going forward.

Transmission successes in 2016 include the development and implementation of the Transmission Risk Mitigation strategic initiative and participation in numerous formula transmission rate update reviews: AEP, PPL, DEOK, ATSI, and Transource. Through joint efforts led by AMP, AMP challenged the PJM transmission owners to provide more cost information and justification for the significant amount of supplemental transmission projects that are not reviewed by PJM, states or federal regulators. AMP was able to convince the Federal Energy Regulatory Commission (FERC) of the value of its efforts and FERC issued an order requiring the transmission owners to demonstrate that they’re complying with the law or change their tariffs to comply.

AMP also led the effort to have PJM and its stakeholders evaluate the current capacity construct to determine whether it meets the needs of customers and other stakeholders. In early 2017, FERC announced that it would be holding technical conferences to address the issue of resource adequacy constructs and public policy.

The transmission team investigated potential partnerships with The Energy Authority (TEA) and other third parties to provide modeling and analytic resources to identify alternatives for mitigating members increasing transmission costs.
The AMP Board of Trustees and the Executive Management Team have adopted the Enterprise Risk Management (ERM) program as the methodology to define risks throughout the organization and develop a culture for responding to those risks. AMP’s ERM process is based on best practices and built upon a repeatable framework. In 2016, AMP completed the second full ERM cycle. An updated report was presented to the AMP Board that brought together the results of the most recent risk assessments, including the view of AMP’s leadership, to provide a holistic view of risks facing the organization.

Throughout 2016, AMP also continued to facilitate corrective actions for various risks, and improve the efforts to protect the organization and its members from vulnerabilities.

In 2016, AMP again offered its first-rate courses in technical, lineworker, OSHA and safety training. AMP’s many additional member services programs (including environmental, business development, public power certification, circuit rider, RP3 application assistance, legislative/advocacy services, scholarships, annual events and more) have also proven to be essential benefits for members once again. Select highlights from the year are listed on page 22.

On the internal staffing front, the organization had another year of growth, hiring 39 employees (including hydro operator positions). AMP also continues to improve employee engagement through training, DISC/talent reports and various other initiatives.
AMP Lineworkers Rodeo

The 2016 AMP Lineworkers Rodeo was held in August and featured competitors from Bryan, Coldwater, Cleveland, Cuyahoga Falls, Central Virginia Electric Cooperative (CVEC), Jackson Center, Marshall, Piqua, Tipp City, Wadsworth and Westerville. In addition to competing in rodeo events, participants can attend valuable training sessions to enhance their on-the-job skills and improve safety. Overall winners from each category (team, individual journeyman, and apprentice) are provided full sponsorship to attend and compete in the national APPA Lineworkers Rodeo.

AMP/OMEA Conference

More than 400 participants attended the 2016 AMP/OMEA Conference Sept. 26-29 at the Hilton Columbus at Easton. Featured speakers included Sue Kelly, president/CEO of the APPA, and Mike Zenker, senior director of NextEra Energy Resources. In addition to conference sessions, AMP, OMEA, MESA, the OMEGA JVs and the AMP project participants held meetings during the conference. Johnnie Burns, electric and water superintendent for the Village of Yellow Springs, was named the 2016 recipient of AMP’s prestigious Seven Hats Award, and numerous members were recognized through AMP’s awards program for finance, innovation, system improvement, public power promotion, electric system sustainability and safety.

Technical Services Conference

The 2016 Technical Services Conference took place in April, with approximately 100 members and vendors in attendance. Geared to utility managers, superintendents and technical staff, the annual event provides an opportunity to increase technical understanding and capabilities, learn about new products, strengthen relationships with AMP members and staff, and exchange ideas with other utilities facing similar challenges.
Training

- In 2016, AMP’s training programs were used by 127 employees from 77 communities in six states. Led by an Advisory Task Force, AMP offered diverse technical and lineworker classes in 2016, including Groundworker, Substation 101, Metering, Hotline, Pole & Bucket Rescue, and Underground Distribution Workshop.

- Approximately 1,000 AMP member community employees from 38 member utilities are trained monthly through AMP’s Occupational Safety and Health Administration (OSHA) program.

- Regional Safety Meetings were also held throughout the year, covering a variety of relevant safety topics for municipal electric systems. More than 150 attendees participated from over 30 communities in these meetings for the year.

Wall of Fame

2016 AMP Wall of Fame inductees

Jon Bisher
Bisher served as the city manager of Napoleon from 1998 to 2014. Prior to Napoleon, he was the executive director of the Henry County Community Investment Corp., following a 20-year career in the U.S. Air Force – retiring as a lieutenant colonel. He represented Napoleon on the AMP Board of Trustees during his time as city manager, serving as chair from 2009 to 2014.

Tom Luebbers
Luebbers served as AMP’s bond counsel for more than 25 years. He was instrumental in forming the Ohio Municipal Electric Generation Agency (OMEGA) Joint Venture program in 1993. He also helped secure Private Letter Rulings from the Internal Revenue Service (IRS) that allowed AMP to issue tax-exempt debt on behalf of its members.

Frank Robinson
Robinson spent nearly 40 years practicing public finance law for the firm of Sidley Austin. His association with AMP began in 1988 and he worked with the organization for nearly 30 years. He was actively involved as AMP’s federal tax and project development counsel. During that time, about $6 billion was funded for generation project development.
Marc Gerken has served as president and chief executive officer of AMP since February 2000. Gerken began his career as a civil engineer working extensive ly in the public sector on infrastructure projects. He served as city engineer in Napoleon, Ohio, and in 1999, was named the community’s city manager. In that capacity, Gerken served on the boards of directors for the Ohio Municipal Utilities Authority and the Lodi-leveille Hydroelectric Plant. He joined AMP in 1998 as vice president of business and operations. Gerken is active in publicpow-er leadership and policy development positions on a national level. He currently serves on the National Hydropower Association (NHA) Board of Directors (having served as president from 2013-2015) and is a past chair of the Prairie State Generating Com-pany Management Committee. He is active with the NHA CEO Council and serves on the board of The Energy Authority, currently as its chair. He is past chair of the American Public Power Association (APPA) Board of Directors and previously chaired the Public Power, Inc. Board of Directors. He is a frequent presenter at APPA meetings, a leader in public power Joint Action Agency working groups, and has testified before congressional committees and at FERC technical conferences.

Pamela Sullivan has been with AMP since 2003 and currently serves as executive vice president of power supply and generation. Past Sullivan has been with AMP since 2003 and currently serves as executive vice president of power supply and generation. She previously served as director of marketing and development, vice president of marketing, and senior vice president of marketing and operations. Before joining the organization she was vice president of marketing for SFT, a consulting engineering firm, where she was responsible for developing and implementing marketing plans and strategies, as well as providing project management services for municipal electric utility transmission/distribution projects. She also served as city electrical engineer for the AMP member community of Napoleon, Ohio. She holds a Bachelor of Science degree in electrical engineering from the University of Toledo. Sullivan has been a key player in the development of the generation projects currently underway at AMP. She has also served as the principal liaison to communities participating in the various projects. As executive vice presiden-t of power supply and generation, Sullivan provides oversight to power supply and marketing services, generation operations and transmission. This includes leading the company’s energy trading floor, commodity procurement, power supply planning, transmission planning, regional transmission organization generation, transmission development, energy marketing and developing AMP’s various power supply projects and programs to its 135 member utilities.

Jolene Thompson has been with AMP since 1990 and currently serves as executive vice president of member services and external affairs. She is also the executive director of the Ohio Municipal Electric Association (OMEA), the legislative liaison to AMP and Ohio’s municipal electric systems. Thomp-son, active nationally, currently serves on the American Public Power Association (APPA) Board of Directors where she serves on the executive committee and is chair of the dues committee, as well as on the Trans-mission Access Policy Study (TAPS) Group Board of Directors where she serves on the executive committee and as chair of the leg-islative committee. Thompson is a recipient of APPA Harold Kramer-John Preston Per-sonal Service Award. She holds a Bachelor of arts degree in journalism from Otterbein University. She advocates with state and federal policymakers on behalf of AMP and its members and led the environmental permitting and public relations teams that worked on AMP generation projects in multiple states. She headed up the launch of the $260 million Efficiency Smart program for AMP members, and has overseen major hu-man resource and benefit program updates. As executive vice president of member services and external affairs, Thompson provides oversight to AMP’s government relations, communications, technical services, environmental affairs, sustainability initiatives, human resources, administrative services and member programs. This includes leading the AMP Foundation’s environmental, safety and North American Electric Reliability (NERC) compliance activities.

John Christopher “Chris” Easton was named chief risk officer in 2015. In this position he chairs the Risk Management Committee and provides overall management of the Middle Office - the independent oversight, compliance, control and monitoring office for the organization. His responsibilities also include management of AMP’s Corporate Energy Risk Management Program and strategic planning. Easton joined AMP in 2014 as vice president of business operations, bringing 30 years of experience with mun-icipal electric system management. He spent his career with the City of Wadsworth, serving as director of public power in 2014. He also served 10 years as a member of the AMP Board of Directors, including serving as treasurer. He holds a bachelor’s degree from Ohio University and a master’s degree in public administration from the University of Akron, and is a member of the American Institute of Certified Planners, the American Planning Association. Easton is also inducted as a finance development professional from the Keller Graduate School of Management.

Scott Kiesewetter was named senior vice president of generation in 2014 and oversees all functions of the Power Generation Group. Kiesewetter has worked for AMP since 1992. His experience with the organization includes engineering and supervisory positions at the former Richard H. Gorsuch Generating Station and at headquarters overseeing transmissions/distribution design, distributed generation operations engineering/accounting, project development and overseeing operations of generation resources. Prior to AMP, Kiesewetter held various positions with the Philadelphia Electric Company. He holds a bachelor’s degree in electrical engineering from the Ohio State University.
2016 AMP MEMBER ENERGY RESOURCE MIX
(16,750,000 MWh)

Note:
- Member coal includes Paducah and Princeton’s Prairie State through KMPA
- Wind & Solar includes member solar
- Hydro includes member hydro