



# SUSTAINABILITY PERFORMANCE

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## At A Glance Third Quarter 2020

*July 1, 2020 — Sept. 30, 2020*

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Included below is American Municipal Power, Inc.'s (AMP) 2020 third quarter (Q3) "At a Glance" sustainability report. The quarterly update is intended to measure and compare the progress of sustainability metrics while also highlighting accomplishments. If you have questions or would like additional information, please contact Erin Miller, assistant vice president of energy policy and sustainability, at 614.540.1111 or [emiller@amppartners.org](mailto:emiller@amppartners.org).

## RECORDS SET FOR HYDRO AND SOLAR PRODUCTION

Several AMP-associated hydro and solar generation records were set this summer. In June, the net energy output from the Meldahl Hydroelectric Plant exceeded 64 million kWh (64,981 MWh). Meldahl delivered an average of 90 megawatts (MW) per hour to participants, which is an 86 percent capacity factor for the 105-MW facility.

During the month of June, Toledo's weather station reported 23 clear days and seven partly-cloudy days. Those sunny days in northwest Ohio powered the Solar Phase II facility at Bowling Green to a 41 percent capacity factor, producing the site's all-time high of 5,933 MWh of solar generation. This is equivalent to the monthly electricity usage of a town with a population of approximately 8,000. The highest daily output was on June 14, when the panels, which track the sun, generated at or near their 20-MW capacity rating from 8 a.m. through 7 p.m.

For July and August, the net-energy output from the Smithland Hydroelectric Plant exceeded a total of 102,041 MWh, which set a new two-month production record for the plant since its startup in summer 2017. Smithland delivered an average of 68.6 MW per hour to participants, which is a 90 percent capacity factor for the 76.2-MW facility.



The Bellevalle Hydroelectric Plant (top) and Brewster Solar Field (bottom)



## SUMMER PEAK SHAVING A SUCCESS

Summer 2020 was one of the warmest on record, which resulted in a large number of peak shaving day alerts. Additionally, this was the first summer that PJM required all behind-the-meter generation that peak shaves to operate during PJM Generation Emergency events (with consequences for non-performance).



To reduce impact to members, AMP issued peak alerts weekly, with day-ahead and day-of instructions using a new color coding system to help members make more customized choices on how aggressively to peak shave. When peak events were forecasted, AMP member communities were encouraged to share content like AMP's [Summer Efficiency Tips video](#) and other Community Energy Savings Day digital communication materials.

In addition, AMP's combustion turbines ran approximately 82 hours and AMP's diesel units ran approximately 50 hours.

The collective efforts of AMP and member communities resulted in approximately \$83 million in transmission and capacity savings. This makes the summer of 2020 one of the most successful peak shaving seasons to date.

## AMP CONFERENCE CONTINUES TO BE A SUCCESS

The 2020 AMP Annual Conference was held Sept. 22-23 as a virtual event. The Conference successfully provided public power officials with the educational sessions and industry-related insights that AMP Members are accustomed to.

Following AMP President/CEO Jolene Thompson's opening remarks on joint action and AMP's upcoming 50-year anniversary, participants welcomed FERC Commissioner Richard Glick, PJM Interconnection President and CEO Manu Asthana, and Midcontinent Independent System Operator (MISO) CEO John Bear for a panel discussion on FERC and regional transmission organization issues.

U.S. Sen. Shelley Moore Capito (WV) provided attendees with an update on activities and issues in Congress. As a member of the U.S. Senate Committee on the Environment and Public Works, Sen. Capito brings unique insight to the legislative discussions impacting public power.

The conference included sessions covering a number of topics and trends in the power industry - including updates on the energy and gas markets, strategies for working with bond rating agencies, innovative thinking, economic development efforts and the annual federal legislative update.

In addition to the many sessions and events, AMP held its general membership meeting during the two-day annual conference. Project participant meetings and the OMEA general membership meeting were scheduled separately from this year's conference.



## SUSTAINABILITY AWARDS

The AMP Electric System Sustainability Award recognizes utilities that have made significant efforts in sustainability.

The following AMP member utilities were recognized during the 2020 AMP Annual Conference:



- Shelby Division of Electricity & Communication for the Shelby Solar Array Project
- Westerville Electric Division for the Commercial Solar Rebate Program
- Honorable Mention: City of Hamilton Department of Infrastructure for the Monarch Conservation and Pollinator Health Research Project
- Honorable Mention: Napoleon Power and Light for the LED Street Light Conversion Project
- Honorable Mention: Village of Yellow Springs Electric Distribution for the Streetscape Project

## EFFICIENCY SMART

The COVID-19 pandemic has created a number of economic challenges, and small businesses have been particularly affected. To help, Efficiency Smart launched a new initiative to assist small businesses in reducing their operating costs while boosting local economies.



Until Nov. 30, Efficiency Smart is offering bonus incentives for small businesses that purchase LED products from designated local contractors and suppliers. The increased incentives for buying local makes reduced operating costs more attainable for small businesses while increasing investment in the community.

The fourth Efficiency Smart contract reported a savings of 5,763 MWh (net) at the end of the third quarter. There are currently 25 communities participating in the program. For more information, visit [www.efficiencysmart.org](http://www.efficiencysmart.org).

## FOCUS FORWARD

### EV Subgroup hosts webinar on May 14

The Focus Forward Advisory Council held a webinar, *Beyond Electrons - Designing Services for Customers*, on July 21. Patty Durand, president and CEO for the Smart Energy Consumer Collaborative, shared results from their 2020 State of the Consumer Report. Participants gained an understanding of energy consumer segments, their perceptions, attitudes and needs, and gained insights on how to develop programs and services to effectively meet these needs. Information was also shared about the AMP services available to members' customers, grant funding for electric vehicle (EV) charging stations, and other news of interest.



In addition, throughout the quarter, AMP shared Smart Electric Power Alliance and American Public Power Association (APPA) related content in its weekly e-newsletter; promoted and assisted members with EV grant opportunities; promoted Electrify America's solicitation for their Cycle 3 Investment Plan; and distributed the Focus Forward Member Toolkit and helped four members establish distributed energy resource policies in response to growing interest in roof-top solar.

## ECOSMART CHOICE

Ten member communities purchased 31,679 megawatt hours (MWh) of renewable energy in the third quarter through AMP's EcoSmart Choice® program.



EcoSmart Choice® is a voluntary green-pricing program available at no-cost to AMP member public power utilities. Members enrolled in EcoSmart Choice® make the program available to their customers for a premium charge on their electric bill to cover the incremental cost of renewable energy. Participating customers may choose to offset 25%, 50%, 75% or 100% of their electricity usage.

## LEGISLATIVE AND REGULATORY UPDATES

The Federal Energy Regulatory Commission (FERC) issued two important orders on July 16 that are consistent with the positions taken by AMP and APPA. FERC issued new rules governing the Public Utility Regulatory Policies Act (PURPA) Qualifying Facilities (QF) and also rejected a petition arguing that it should regulate prices under net metering arrangements.



On Jan. 27, the U.S. House Subcommittee on Environment and Climate Change released the discussion draft version of the Climate Leadership and Environmental Action for our Nation's Future Act (CFA), also known as the CLEAN Act, along with a request for comments. On July 7, AMP provided comments on the CFA to the Subcommittee, focusing on the following:

- Concerns regarding multiple, overlapping regulations;
- Proposing a public power exemption from clean energy standards;
- Encouraging federal funding opportunities and assistance for municipalities for clean energy projects;
- Providing credit for completed clean energy projects; and
- Support for earlier comments by Prairie State Generating Campus.

To see AMP's comments, click [here](#).

## AMP RENEWABLE ENERGY PRODUCTION, ENERGY EFFICIENCY: EMISSIONS AVOIDANCE

	Q3 2020 MWh	CO2 emissions avoided (Tons)*	SO2 emissions avoided (Tons)*	NOx emissions avoided (Tons)*	Total emissions avoided (Tons)
Belleville Hydro (JV5)	42,183	17,949	11.60	9.49	17,970
Greenup Hydro **	79,530	33,840	21.87	17.89	33,880
Meldahl Hydro	131,112	55,788	36.06	29.50	55,854
Cannelton Hydro	134,381	57,179	36.95	30.24	57,246
Willow Island Hydro	34,571	14,710	9.51	7.78	14,727
Smithland Hydro	146,890	62,502	40.39	33.05	62,575
AMP Wind Farm (JV6)	891	379	0.25	0.20	380
Napoleon Solar	1,686	717	0.46	0.38	718
Landfill Gas ***	96,302	629,672	26.48	21.67	629,721
Blue Creek Wind	18,407	7,832	5.06	4.14	7,841
EcoSmart Choice	31,679	13,479	8.71	7.13	13,495
Efficiency Smart	2,165	921	0.60	0.49	922
Solar Phase II	35,292	15,017	9.71	7.94	15,034
Carbon Offset**** Reforestation Projects	467 acres	122			122
					<b>910,486</b>

\* <https://www.pjm.com/-/media/library/reports-notice/special-reports/2019/2019-emissions-report.ashx?la=en>

\*\* AMP's share of the Greenup Hydro facility is 48.6 percent.

\*\*\* Includes direct emissions reduced from methane (CO<sub>2e</sub>) and avoided emissions from CO<sub>2</sub>. <https://www.epa.gov/lmop/landfill-gas-energy-benefits-calculator>

\*\*\*\* USEPA estimates 1.043 tons of CO<sub>2</sub> is sequestered annually by one acre of average U.S. forest.

## GREEN BOND FINANCED PROJECTS – Q3 2020 REPORT

	Meldahl	Combined Hydro (Cannelton, Willow Island, Smithland)	Solar Phase II
Net Renewable Capacity (MW)	108.8	208	58.3
Net Renewable Generation (MWh)	131,112	316,022	35,292
Capacity Factor (%)	55%	69%	N/R
Emissions Avoidance			
CO <sub>2</sub> (GHG) emissions avoided (Tons)	55,788	134,467	15,017
SO <sub>2</sub> emissions avoided (Tons)	36.06	86.91	9.71
NO <sub>x</sub> emissions avoided (Tons)	30.16	72.69	N/R

2019 PJM Market Power Fuel Breakdown <sup>[2]</sup>	
Nuclear	33.60%
Natural Gas	36.20%
Coal	23.80%
Wind and Solar	3.20%
Hydroelectric	2.00%
Other	1.20%
Total	100.00%

2019 PJM Market Power Emissions Rate <sup>[1]</sup>	
CO <sub>2</sub> (GHG) emissions Factor (lbs/MWh)	851
SO <sub>2</sub> emissions Factor (lbs/MWh)	0.55
NO <sub>x</sub> emissions Factor (lbs/MWh)	0.45

<sup>[1]</sup> [PJM 2015-2019 CO<sub>2</sub>, SO<sub>2</sub> and Nox Emissions Rates Report April 9, 2020](#)

<sup>[2]</sup> [PJM State of the Market Report, 2019 Table 3-50](#)

*N/R - not required for reporting*



## POWER GENERATION

in net MWh

July 1, 2020 — Sept. 30, 2020

**AMP Wind Farm (JV6):** 891

**AMP Fremont Energy Center (AFEC):\*** 973,293

**Belleville Hydro (JV5):** 42,183

**Greenup Hydro:\*** 79,530

**Meldahl Hydro:** 131,112

**Cannelton Hydro:** 134,381

**Willow Island Hydro:** 34,751

**Smithland Hydro:** 146,890

**Prairie State Energy Campus (PSEC):\*\*** 603,397

**Distributed Generation:** 14,819

**Landfill Gas:** 96,302

**Blue Creek Wind:\*\*** 18,407

**Napoleon Solar:** 1,686

**Solar Phase II:** 35,292

\* Total plant

\*\* AMP's share

## HEALTH AND SAFETY

July 1, 2020 — Sept. 30, 2020

**Employee Work Related Fatalities:**

0

**Recordable Incidents or Accidents:**

1

**Lost Work Day Incidents:**

0

## COMMUNITY

July 1, 2020 — Sept. 30, 2020

**AMP Employee Charitable Giving:** \$4,610.50

**ENVIRONMENT**  
emissions in short tons (AFEC, AMP share of Prairie State\*, gas and diesel turbines)  
*July 1, 2020 — Sept. 30, 2020*

<b>CO2:</b> 1,141,611.5	<b>SO2:</b> 533.7	<b>NOx:</b> 327.9
<b>PM:</b> 24.9	<b>CO:</b> 53.5	<b>Hg (in lbs):</b> 3.8
	<b>VOC:</b> 14.5	

*\*Prairie State data not yet certified*

**HAZARDOUS, UNIVERSAL,  
OTHER WASTE**

*July 1, 2020 — Sept. 30, 2020*

19,705 lbs.

**TRASH PULLED FROM  
THE OHIO RIVER**

*July 1, 2020 — Sept. 30, 2020*

67,900 lbs.

**ENERGY EFFICIENCY AND ECOSMART CHOICE  
REC SALES**

*July 1, 2020 — Sept. 30, 2020*

**Efficiency Smart Cumulative Savings**  
**2014 — 2020:** 122,596 MWh **2020 Q3:** 2,165 MWh

**EcoSmart Choice REC Sales:** 31,679 MWh

**RECYCLING AND REUSE**

*July 1, 2020 — Sept. 30, 2020*

**Recycled glass, plastic, metals, paper and cardboard**  
6,362 lbs.