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ORDINANCE NO. 70-23

AN ORDINANCE AUTHORIZING THE EXECUTION OF THE 2023 PJM POWER POOL PARTICIPANT SCHEDULE WITH AMERICAN MUNICIPAL POWER, INC. ("AMP") AND DECLARING AN EMERGENCY.

WHEREAS, the City of Jackson, Ohio (the "Municipality"), is a political subdivision organized and existing pursuant to the laws of the Ohio of Ohio that owns and operates an electric utility system for the sale of electric capacity and associated energy for the benefit of its citizens and customers; and

WHEREAS, Municipality is located in the PJM Interconnection, LLC ("PJM") transmission system territory and is subject to the PJM transmission system regulations and costs as set forth in the PJM Governing Documents; and

WHEREAS, in order to satisfy the electric capacity, energy and other requirements of its electric utility system, the Municipality has heretofore purchased economical and reliable capacity, energy and related services from American Municipal Power, Inc. ("AMP"), an Ohio non-profit corporation, of which the Municipality is a member, or has heretofore purchased capacity and energy arranged by AMP; and

WHEREAS, in order to take advantage of economies of scale and to recognize the joint scheduling, interconnection and operation, and transmission arrangements that AMP Members located in the AEP transmission zone coordinate and share through AMP, those Members desire to form a combined pool PJM to jointly purchase, manage and coordinate power supplies and related services for Members executing this Schedule; and

WHEREAS, Municipality and AMP desire to enter into a Power Pool Participant Schedule ("Schedule") for the purpose of: (i) energy, capacity and related product scheduling and operations under the PJM Governing Documents and (ii) economic purchases of capacity, energy and related products for the beneficial use of Pool Participants.

NOW THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF JACKSON, OHIO:

SECTION 1. That the form of 2023 PJM Power Pool Participant Schedule attached hereto as "Exhibit 1" including Appendices thereto between this Municipality and AMP, be, and the same hereby is approved substantially in the form attached hereto, subject to and with any and all changes provided herein and therein.

SECTION 2. That the Director of Public Service and Safety is hereby authorized and directed to execute and deliver on behalf of this Municipality the 2023 PJM Power Pool Participant Schedule, substantially in the form attached hereto as "Exhibit 1."

SECTION 3. That the Municipality authorizes AMP to purchase on the Municipality's behalf, in accordance with the procedures set forth in the 2023 PJM Power Pool Participant Schedule, and Municipality agrees to reimburse AMP for all costs incurred by AMP for Pool Resources and services plus any service fees associated with the purchase of Pool Resources and services set forth therein.

SECTION 4. That the Mayor or his designee is hereby designated as Municipality's authorized personnel to approve and authorize AMP's acquisition of Pool Resources and to vote on Pool activities in accordance with the terms and conditions in the 2023 PJM Power Pool Participant Schedule on behalf of Municipality.

SECTION 5. That the currently effective Pool Schedule is terminated by mutual agreement, as of the Effective Date of the 2023 Pool Schedule.

SECTION 6. That it is found and determined that all formal actions of this Council concerning and relating to the adoption of this Ordinance were adopted in an open meeting of the Council, and that all deliberations of this Council and of any of its committees that resulted in such formal action were in meetings open to the public and in compliance with all legal requirements.

SECTION 7. If any section, subsection, paragraph, clause or provision of any part thereof of this Ordinance shall be finally adjudicated by a court of competent jurisdiction to be invalid, the remainder of this Ordinance shall be unaffected by such adjudication and all the remaining provisions of the Ordinance shall remain in full force and effect as though such section, subsection, paragraph, clause or provision or any part thereof so adjudicated to be invalid had not, to the extent of such invalidity, been included herein.

SECTION 8. That this Ordinance is hereby declared an emergency measure necessary for the immediate preservation of the public peace, health and safety of Municipality, and for the further reason that it is necessary to establish the most efficient plan possible to provide Pool Resources Municipality, therefore, this Ordinance shall be in effect upon passage and as provided in Ohio Revised Code Section 731.30.

SECTION 9. In the event this Ordinance receives a majority vote for passage but fails to receive the required number of votes to pass as an emergency, then this Ordinance shall be deemed to have passed but with no emergency clause and shall take effect at the earliest time permitted by law.

It is hereby found and determined that all formal actions of this Council relating to the adoption of this Ordinance were adopted in an open meeting of this Council, and that the deliberations of this Council that resulted in such formal actions were in a meeting open to the public in compliance with all legal requirements, including Section 121.22 of the Ohio Revised Code.

27th PASSED AND ADOPTED by the Legislative Authority of the Political Subdivision on this
day of NOVEMBER, 2023.

David H. Folger
President of Council

ATTEST:

Cinel Kuhn
Clerk of the Legislative Authority

Approved this 27th day of NOVEMBER, 2023.

Ramona Winters
Mayor



**CITY OF JACKSON, OHIO
2023 PJM POWER POOL PARTICIPANT SCHEDULE
TO
AMERICAN MUNICIPAL POWER, INC.
AND
CITY OF JACKSON, OHIO
MASTER SERVICES AGREEMENT
(AMP CONTRACT NO. C-10-2005-4376)**

WHEREAS, the City of Jackson, Ohio ("Municipality") and American Municipal Power, Inc. ("AMP") collectively ("Parties") have entered into a Master Service Agreement ("Agreement") under which certain services may be provided under schedules thereto; and

WHEREAS, in order to take advantage of economies of scale and to recognize the joint scheduling, interconnection and operation, and transmission arrangements that AMP Members located in the AEP transmission zone coordinate and share through AMP, those Members desire to form a combined pool PJM to jointly purchase, manage and coordinate power supplies and related services for Members executing this Schedule; and

WHEREAS, Municipality and AMP desire to enter into this PJM Power Pool Schedule ("Schedule") for the purpose of: (i) energy, capacity and related product scheduling and operations under the PJM Governing Documents and (ii) economic purchases of capacity, energy and related products for the beneficial use of Pool Participants.

NOW, THEREFORE, in consideration of the following mutual promises, AMP and Municipality agree as follows:

SECTION 1. DEFINITIONS

As used in this Agreement, the terms that are defined in the PJM Governing Documents shall have the definitions provided therein, and the following defined terms shall have the respective meanings set forth below:

- (a) 1CP - The hour of each of Transmission Zone's single highest load during the previous Delivery Year.

5CPs - The hour of each of PJM's five highest coincident peak loads during the previous calendar year used by PJM to determine load's Installed Capacity Demand.
- (b) Allowable Non-Pool Power – The maximum amount of Non-Pool Power

that a Pool Participant can utilize for the upcoming year. During the Term of this Schedule, there will not be a limit on Non-Pool Power unless the Pool has purchased Pool Power for a term greater than one (1) year according to the procedures in Section 4.A.

- (c) Applicable Law – All federal, state and local law and regulations including but not limited to the Federal Power Act, the Regional Transmission Organization's Governing Documents, the terms and conditions of any Interconnection and Operating agreements entered into with the interconnecting Transmission Zone whether directly by the Pool Participant or by AMP on behalf of the Pool Participant, and the interconnecting Transmission Zone's requirements.
- (d) Applicable Technical Standards -- Those certain technical requirements and standards applicable to the interconnection of Pool Participant to Transmission Facilities, the PJM Governing Documents; and the standards, requirements and guidelines of NERC and each applicable NERC Regional Entity.
- (e) Behind the Meter Generation ("BTMG") – A generation unit that delivers energy to load without using the transmission system or any Municipal distribution facilities (unless the Municipality consented to such use of the distribution facilities and such consent has been demonstrated to the satisfaction of PJM); provided, however, that BTMG does not include: (i) at any time, any portion of such generating unit's capacity that is designated as a Generation Capacity Resource; or (ii) in an hour, any portion of the output of such generating unit that is sold to another entity for consumption at another electrical location or into the PJM Energy Market.
- (f) Capacity Pool – Device by which installed capacity is supplied under this Schedule to Pool Participants.
- (g) Capacity Pool Participant(s) – AMP Members receiving installed capacity service from AMP under this Schedule.
- (h) Capacity Pool Resource – Source of capacity of the Capacity Pool for the benefit of the Capacity Pool Participants.
- (i) Day Ahead LMP – The hourly forward market price for each pricing point on the PJM system calculated by PJM and posted daily around 1:30 pm EPT for the upcoming day, pursuant to the Day Ahead Energy Market rules set forth in the PJM Governing Documents.
- (j) Delivery Period – The period of time when a Pool Resource is scheduled

and delivered to Pool Participants' Delivery Points.

- (k) Delivery Point(s) – The location of Pool Participants' existing facilities connecting their respective electric distribution systems to the interconnecting Transmission Zone's transmission facilities as set forth in Interconnection and Operating Agreements.
- (l) Delivery Year – the period from November 1 through October 31 prior to the start of the January 1 calendar year. For example, the Delivery Year for the 2024 calendar year is November 1, 2022 through October 31, 2023.
- (m) Dispatch Center Costs –The cost for AMP's dispatch center personnel, facilities, SCADA equipment required for monitoring loads, etc., that are allocated monthly to users of the AMP dispatch center.
- (n) Energy Obligation – Each Energy Pool Participant's hourly energy needs, including transmission and distribution losses as further defined in Section 4(A).
- (o) Energy Pool – Device by which energy is supplied under this Schedule to Pool Participants.
- (p) Energy Pool Participant(s) – AMP Members receiving energy service from AMP under this Schedule.
- (q) Energy Pool Resource – Source of electric energy or related services to the extent the same is utilized to provide, or is obligated to provide energy or related services to the Energy Pool for the benefit of the Energy Pool Participants.
- (r) Energy Requirement – Each Energy Pool Participant's Energy Obligation minus Non-Pool Energy.
- (s) Financial Transmission Right or FTR is a right to receive Transmission Congestion Credits as specified in the PJM Governing Documents.
- (t) Generation Schedule – Pool Participant's hour-by-hour schedule of Municipal BTMG or Day Ahead Load Request as designated in Exhibit A. The deadline for submitting the Generation Schedule for the next day is 10:00 am EPT.
- (u) "Good Utility Practice" - Any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during

the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region.

- (v) Interconnection and Operating Agreements - Agreements entered into by and between either a Pool Participant and a Transmission Zone or AMP on behalf of one or more Pool Participants and a Transmission Zone to establish the terms and conditions for the interconnection and coordinated operation of the Pool Participants' electric distribution systems and their use of certain transmission and/or distribution facilities to serve their respective wholesale loads, which are separate from the rates, terms and conditions of transmission service provided by PJM under the PJM Governing Documents.
- (w) Locational Marginal Prices or LMP – PJM's hourly integrated locational marginal price for energy that is received or delivered.
- (x) Majority Vote means both:
 - (i) A majority of the Pool Participants with each Pool Participant receiving one vote; and
 - (ii) Pool Participants representing a majority of the annual Energy Obligations (as calculated in Section 4.A for the previous calendar year for all of the Pool Participants).
- (y) Non-Pool Energy – Energy that is contracted for (through AMP) or owned or contracted for directly by the Pool Participant to serve its respective load and not a Pool Resource. Some examples (although not an exhaustive list) of Non-Pool Energy include: a specific Pool Participants' block and remaining requirements energy contracts.
- (z) Non-Pool Power – Energy, capacity and other related products that are contracted for (through AMP) or owned or contracted for directly by the Pool Participant to serve its respective load and not a Pool Resource. Some examples (although not an exhaustive list) of Non-Pool Power include: a specific Pool Participants' project shares of AFEC, NYPA, Prairie State, landfill or solar power resources, certain block and remaining requirements energy contracts and demand response resources. Non-Pool Power shall also include Bilateral Sales made by Pool Participants.
- (aa) Non-Pool Power Deadline – In order for the Energy Pool Resources to be

properly planned and fairly allocated, Pool Participants shall not acquire additional Non-Pool Resources or sell a portion of their Non-Pool Resources for the upcoming year after October 1. The deadline may be waived if AMP determines that the acquisition or sale of Non-Pool Resources will not impact the power costs of the remaining Energy Pool Participants.

- (ab) PJM - PJM Interconnection L.L.C., a regional transmission organization.
- (ac) PJM Governing Documents - PJM's Open Access Transmission Tariff, Operating Agreement and Reliability Assurance Agreement as on file with FERC and in effect as well as PJM Manuals.
- (ad) Pool Participant(s) - AMP Members who execute a Schedule substantially in the form of this Schedule for service from AMP.
- (ae) Pool Participant Average Coincident Peak Load – For the previous calendar year, the 12 month average of a Pool Participant's total load at the hour of each month's Total Pool Participants' Peak Load.
- (af) Pool Resource – Any or all Energy Pool Resource, Capacity Pool Resource or FTRs.
- (ag) Pricing Point – the Pricing Point for settlements under this Schedule shall be as set forth in Exhibit C, attached hereto and incorporated herein.
- (ah) Real Time LMP – Hourly integrated market price for each pricing point on the PJM system calculated by PJM during the operating day.
- (ai) Renewable Energy Credits (“RECs”) - Environmental attributes associated with the generation of electricity from one or more renewable resources and the reporting rights associated with such environmental attributes, which include all of the characteristics of energy produced from an eligible renewable resources (other than the underlying energy itself) which may be unbundled or separated from the energy (but without any unbundling or separation of any such characteristics from each other) for the purposes of enabling their sale such that title to the energy and title to the environmental attributes may be held by different persons.
- (aj) Total Pool Participants' Coincident Peak Load – For a calendar month, the maximum coincident hourly sum in kilowatts measured at all Delivery Points of all Pool Participants, plus the net generation from any generation electrically connected to any Pool Participant's municipal electric system.
- (ak) Transmission Zones –Transmission system zone in which Municipality's

service area is interconnected to.

SECTION 2. REPRESENTATIONS

- (A) Each Party has full legal right and authority to enter into this Schedule, to carry out its obligations hereunder and to provide and receive the products and services provided herein.
- (B) Each Party shall comply with Good Utility Practice, Applicable Technical Standards, PJM Governing Documents and Applicable Laws in performing its respective obligations and responsibilities under this Schedule.
- (C) Each Party will inform the other of any changes to its respective facilities or needs that might reasonably be expected to affect the products or services provided hereunder.

SECTION 3. TERM

Subject to the conditions contained herein, this Schedule shall be for a term beginning on January 1, 2024 (the "Effective Date") and ending December 31, 2030. This Schedule will continue for successive one-year terms thereafter unless either Party provides written notice of termination to the other Party by no later than twenty-four (24) months before the then current term ends.

In the event that a Pool Participant terminates this Schedule prior to the ending date of any Pool Resource, the Pool Participant shall be financially responsible for the positive differential between (1) the actual cost of the unused portion of the Pool Resource until the expiration of the Pool Resource, and (2) the market value of the unused portion of the Pool Resource, as determined by AMP. After a Pool Participant has provided notice of termination to AMP, any purchases of Pool Resources shall carve out the notifying Pool Participant's Pool Requirements and such Pool Participant will not be responsible for that Pool Resource and will not benefit from the Pool Resource.

The method for calculating the Pool Participant's financial obligation for the unused portion of the Pool Resource shall be based on the Participant's percentage share of the annual total Pool Resources for the last calendar year prior to the date that termination was given.

SECTION 4. POOL REQUIREMENTS SERVICES

Subject to provisions of this Schedule, AMP shall be the Pool Requirements provider of all electric energy and capacity required by Pool Participants for purposes of providing electric service to Pool Participants' retail customers and to the Pool Participants as users of electric service. Pool Participants shall take and pay for the same in accordance with this Schedule. AMP shall provide such Pool Requirements Service in a prudent manner so as to provide reliable electric service to Pool Participants at the lowest overall cost consistent with available sources as further described in this Schedule.

AMP shall provide Pool Participants, energy, capacity and related services from Pool Resources for the benefit of all Pool Participants by purchasing various economical Pool Resources from time to time subject to the provisions of this Schedule. Such Pool Resources shall include, but shall not be limited to, purchases or sales of short-term energy sources, RECs, generation owned and operated by Pool Participants or other municipal systems and generation owned and operated by AMP, transmission and related services, or a combination of the above.

AMP shall provide the Pool Requirements Service to the Pool Participants as follows.

A. ENERGY POOL REQUIREMENTS SERVICE

AMP shall procure Energy Pool Resources on behalf of Pool Participants for periods of one (1) year or less, up to twenty-four (24) months in advance of the Delivery Period of the resource. Energy Pool Resources may exceed one (1) year only with the express written authorization of each Pool Participant.

Energy Obligations shall be calculated on an hourly basis as follows.

Each Pool Participant's Energy Obligation shall be equal to the metered kilowatt-hour tie line meter plus any Behind the Meter Generation plus Transmission Losses plus Distribution Losses or the Pool Participant's Generation Schedule (if Option B is utilized),

Where Transmission Losses equal the metered kilowatt-hour tie line meter multiplied by the Transmission Loss Factor; and,

Distribution Losses equal the metered kilowatt-hour tie line meter multiplied by the Distribution Loss Factor.

Participant	Tie Line Meter (A)	BTMG (B)	Transmission/Distribution Loss Factor (C)	Transmission and Distribution Losses (D=AxC)	Generation Schedule (E) If Using Opt B under Gen Deviation	Total Energy Obligation F=(A+B+D) or G
Participant 1 (No Gen)	1000 kWh	-	3.0%	30 kWh	-	1030 kWh
Participant 2 (BTMG Gen)	1000 kWh	500 kWh	8.0%	80 kWh	-	1580 kWh
Participant 3 (Using Opt B – Fixed Load Sched)	N/A		-		1000 kWh	1000 kWh

Pool Participant's Energy Obligation shall first be filled by Pool Participant's Non-Pool Power; provided however, the Pool Participant is solely responsible for the delivery of the Non-Pool Power, and to the extent Pool Participant's Non-Pool Power is not, for any reason, delivered at any time during the Term, AMP shall provide replacement energy, to the extent the same is available, to make up for any shortfall of Non-Pool Power from the Energy Pool.

The Non-Pool Energy that the Pool Participant shall utilize to meet its Energy Obligation for the upcoming calendar year shall not be changed after the Non-Pool Deadline.

In the event that Pool Participant is utilizing BTMG (option A or C) as Non-Pool Power, the hourly Non-Pool Power energy credit shall be equal to the Generation Schedule (Option A) or actual Municipal BTMG (Option C).

All Energy Pool Resources and Non-Pool Power shall be arranged, scheduled, and dispatched, subject to contractual limitations, by AMP, which shall do so in such a manner as to provide the lowest overall cost consistent with reliability, prudence and all contractual limitations.

Pool Participant's remaining energy requirements after Non-Pool Power shall be filled from the Energy Pool.

If Pool Participant's Non-Pool Power is greater than Pool Participant's Energy Obligation for any hour, Pool Participant shall sell the excess energy to the Energy Pool at the PJM Day Ahead LMP rate for the PJM Pricing Point.

If Pool Participant's Non-Pool Power is less than Pool Participant's Energy Obligation for any hour, Pool Participant shall purchase remaining energy needs from the Energy Pool at the PJM Day Ahead LMP rate for the PJM Pricing Point times a Power Cost Adjustment ("PCA") calculated to recover all of the power supply costs incurred by the Energy Pool for the month as follows.

The PCA shall equal the Total Energy Pool Resources Costs (including Inadvertent Energy Costs and Costs to move to Ancillary Services to keep PCA within allowable bandwidth)

divided by the sum of (each Pool Participant's hourly Energy Pool Requirements multiplied by the hourly Day Ahead LMP).

The PCA shall not be greater than 1.50 and not less than 0.50. In the event that the PCA would exceed those limits, then an amount of dollars (positive or negative) would be transferred from the Energy Pool to Ancillary Services to bring the PCA back to its limit.

An example of the PCA calculation is shown below.

Participant	Net kWh	Cost
Market Purchases from PJM	2,220,000	\$ 102,000
Purchase of Member Excess at DA LMP	50,000	\$ 2,000
Pool Monthly Block Purchase	320,000	\$ 9,600
Pool Daily Block Purchase	108,000	\$ 5,400
Congestion and Losses on Pool Resources		\$ 100
Generation Deviation Purchases/Sales	10,160	\$ 600
Calculated Inadvertent Energy		\$ (5,000)
Costs to move to Ancillary Services to keep PCA within allowable bandwidth		\$ 0
Total Energy Pool Resources Costs	2,708,160	\$ 114,700
Total Pool Requirements at DA LMP	2,708,160	\$ 113,736
Pool PCA		$\$114,700/\$113,736 = 1.0084757$

Inadvertent Energy Costs are calculated to divide real time energy market purchases and sales between Energy Pool and ancillary services as set forth below.

Hour	DA	DA	RT	Actual	RT	Total Cost	If Actual	Inadvertent Charged to	
	LMP	Forecast	LMP	Load	Position	of Energy	Load was at	Ancillary Service	
	A	B	C	D	E=D-B	F=AxB+CxE	G=AxD	H=F-G	
1	\$20	50	\$24	49	-1	\$976	\$980	-\$4	Transfer from Ancillary to Energy Pool
2	\$20	50	\$15	49	-1	\$985	\$980	\$5	Transfer from Energy Pool to Ancillary
3	\$20	50	\$16	52	2	\$1,032	\$1,040	-\$8	Transfer from Ancillary to Energy Pool
4	\$20	50	\$28	51	1	\$1,028	\$1,020	\$8	Transfer from Energy Pool to Ancillary

B. GENERATION SCHEDULE DEVIATION SERVICE

AMP shall provide Generation Deviation Service to Pool Participants as follows:

- (1) **For BTMG under option A and D in Exhibit A:** The generation deviation requirements of the Pool Participant shall be calculated on an hourly basis as follows:

Generation Deviation energy purchase or sale (if negative) shall be equal to Pool Participant's Generation Schedule minus the net actual BTMG.

- (2) **For Day Ahead Load under option B in Exhibit A:** The generation deviation requirements of the Pool Participant shall be calculated on an hourly basis as follows:

Generation Deviation energy purchase or sale (if negative) shall be equal to Pool Participant's Energy Obligation minus Pool Participant's Generation Schedule;

- (3) Sales and purchases of Generation Deviation Energy shall be at the PJM Real Time LMP for the PJM Pricing Point.

Generation Deviation shall be calculated on an hourly basis. An example of the Generation Deviation calculations is shown below.

Participant	BTMG (A)	Generation Schedule (B)	Participant Energy Obligation (C)	Generation Deviation (D=A-B-C)*
Participant using Option A	1500 kWh	700 kWh	N/A	800 kWh

Participant using Option B	N/A	9000 kWh (Load Sched)	2900 kWh	(2000) kWh
Participant using Option C	N/A	No schedule submitted (Non-Pool = Gen)	N/A	0 kWh
Participant using Option D	500 kWh	No schedule submitted (all Gen sold to RealTime)	N/A	500 kWh
*Positive means sale, negative means purchase				

C. DEMAND RELATED TRANSMISSION COSTS

Subject to provisions of this Schedule, AMP shall be the transmission requirements provider of all PJM transmission service required by Pool Participant to provide electric service to Pool Participant's customers. Pool Participant shall take and pay for the same in accordance with this Schedule. Notwithstanding the foregoing, nothing in this agreement shall prohibit any Pool Participant from contacting, coordinating, requesting or obtaining technical or other information or interfacing in any way with PJM or Transmission Zones regarding facilities, technical, equipment, engineering or other issues regarding Pool Participant-owned facilities, point of contact equipment or service in accordance with the terms and conditions of any applicable Interconnection Agreements.

The transmission rate in dollars per kilowatt-month (\$/kW-mo) shall include the Transmission Zone network transmission service charges as well as other 1CP related charges listed in Exhibit A (including any transmission peak shaving savings from behind the meter generation located in Pool Participant's distribution system). The credit or charge shall be calculated in the same manner as that calculated by PJM.

Transmission Demand shall be calculated on a monthly basis as follows:

Pool Participant's Tie Line Meter + BTMG Meter at the 1CP plus any 1CP adders assessed by PJM for failure of BTMG to operate at their PJM BTMG obligation during PJM Max Emergency Generation events during the previous year pursuant to the PJM Governing Documents.

An example of Transmission Demand calculations is listed below (penalty).

Participant	Tie Line Meter at 1CP (A)	BTMG at 1CP (B)	1CP Adder for BTMG Failure during PJM Emergency (C)	Total Transmission Demand (D=A+B+C)
Participant 1	1000 kW			1000 kW
Participant 2	1000 kW	500 kW		1500 kW
Participant 4	1000 kW	300 kW	30 kW	1330 kW
Participant 4	(1000) kW	4000 kW		30000 kW

D. ENERGY RELATED ANCILLARY COSTS

Subject to provisions of this Schedule, AMP shall be the ancillary services requirements provider of all ancillary services required by Pool Participant to provide electric service to Pool Participant's customers. Pool Participant shall take and pay for the same in accordance with this Schedule.

The ancillary services transmission rate in dollars per megawatt-hour (\$/MWh) shall be equal to:

Energy based ancillary service charges as listed in Exhibit B (including, for example, PJM and AMP scheduling and inadvertent charges, operating reserves, economic load response charges/credits, PJM interchange meter correction charges and transmission loss credits), plus charges or credits for FTRs purchased on behalf of Pool Participants divided by the sum of monthly energy requirements for each Pool Participant.

An example of monthly energy requirements calculations is below.

Participant	Monthly Tie Line Meter (A)	Monthly BTMG (B)	Transmission/Distribution Loss Factor (C)	Transmission Losses (D=AxC)	Total Monthly Energy Requirements (E=A+B+D)
Participant 1	100,000 kWh		3%	3000 kWh	103,000 kWh
Participant 2	100,000 kWh	50,000 kWh	8%	8000 kWh	158,000 kWh
Participant 3	(100,000) kWh	400,000 kWh	3%	(3000) kWh	297,000 kWh

E. CAPACITY POOL REQUIREMENTS SERVICE

Subject to provisions of this Schedule, AMP shall be the provider of capacity required by Pool Participant to meet PJM capacity requirements, provided that Pool Participant may purchase PJM capacity from suppliers other than AMP with AMP's approval, which shall not be unreasonably withheld. Pool Participant shall take and pay for capacity from AMP in accordance with this Schedule.

Pool Participant's capacity requirements shall be calculated on a monthly basis as follows:

Pool Participant's purchase of capacity shall be equal to the average Tie Line Meter + BTMG Meter at the 5CP plus any 5CP adders assessed by PJM for failure of BTMG to operate at their PJM BTMG obligation during PJM Max Emergency Generation events during the previous year.

An example of Capacity Demand calculations is listed below.

Participant	Tie Line Meter at 5CP (A)	BTMG at 5CP (B)	5CP Adder for BTMG Failure during PJM Emergency (C)	Total Capacity Requirements (D=A+B+C)
Participant 1	1000 kW			1000 kW
Participant 2	1000 kW	500 kW		1500 kW
Participant 3	1000 kW	300 kW	30 kW	13300 kW
Participant 4	(1000) kW	4000kW		3000 kW

Pool Participant's purchase of Capacity Pool Requirements Service shall be at the monthly rate calculated in dollars per kilowatt-month (\$/kW-mo) and shall be equal to:

Net cost of capacity charges and credits as listed in Exhibit B (including, for example, purchases or sales from the PJM capacity market, any installed capacity peak shaving savings from BTMG located in Pool Participant's distribution system, any bilateral transactions, and any PJM capacity penalties or bonus payments attributed to any Capacity Pool Resources)

divided by Total Capacity Requirements.

Due to the nature of the PJM capacity auctions, AMP is authorized to procure Capacity Pool Resources for periods of one year or less up to sixty (60) months in advance of the Delivery Period. AMP shall not procure Capacity Pool Resources that will obligate AMP, and therefore any Capacity Pool Participants, for periods greater than one (1) year, unless each Capacity Pool Participant authorizes the same by affirmative consent in writing.

AMP shall distribute demand response credits or charges or capacity auction credits or charges from PJM attributed to Pool Participant's Non-Pool Power that are entitled to the same from PJM.

F. FTRs, CONGESTION and LOSSES

AMP shall procure FTRs on behalf of Pool Participants for periods of one (1) year or less, up to forty-eight (48) months in advance of the Delivery Period.

AMP shall provide a net credit or charge to Pool Participant based on FTRs held by AMP on behalf of Pool Participant for the Pool Participant's Non-Pool Power.

AMP shall provide a credit or charge to Pool Participant based on congestion billed by

PJM to AMP associated with delivery of Pool Participant's Non-Pool Power. The credit or charge shall be calculated in the same manner as that calculated by PJM.

AMP shall provide a credit or charge to Pool Participant based on marginal losses billed by PJM to AMP associated with delivery of Pool Participant's Non-Pool Power. The credit or charge shall be calculated in the same manner as that calculated by PJM.

SECTION 5. RATES, CHARGES AND BILLING

- Charges,
- (1) Pool Participant shall be charged and billed by AMP, in accordance with Section 7 of the Master Services Agreement, for all costs incurred in providing Pool Resource Services, including but not limited to all electric capacity and energy, Non-Pool Power and transmission related charges, if any, determined in accordance with this schedule. The charges will include all costs to AMP listed in Exhibit B, (based on known PJM charges as of June 1, 2023).
 - (2) The following charges are not Pool-related and shall be billed to the Pool Participant by AMP at cost in the same manner as billed by PJM and Transmission Zone:
 - (a) Reactive and Power Factor Correction Charges from PJM or Transmission Zone,
 - (b) PJM or Transmission Zone Customer and Metering
 - (c) Transmission Zone Interconnection and Local Delivery Service Charges, including but not limited to distribution voltage delivery charges, and
 - (d) State taxes billed by PJM or Transmission Zone.

- (3) Dispatch Center Costs allocated to the Pool will be allocated to Pool Participant based on Pool Participant's *pro rata* share of the Pool Participants' Average Coincident Peak Load. A credit in kW will be given to Pool Participant for any Non-Pool Power resources that include AMP Dispatch Center Costs in the rate. An example of a Dispatch Center Cost *pro rata* share calculation is listed below:

Participant	Pool Participant Average Coincident Peak Load (A)	Non-Pool Resources that include Dispatch Center Costs (B)	kW Allocation of Dispatch Center Costs (C=A-B) (Max of 0 kW)	Percentage Allocation of Dispatch Center Costs (D)
Participant 1	1000 kW	400 kW	600 kW	12%
Participant 2	1400 kW	0	1400 kW	28%
Participant 3	700 kW	1000 kW	0 kW	0%
Participant 4	1300 kW	300 kW	1000 kW	20%
Participant 5	3000 kW	1000 kW	2000 kW	40%
Total			5000 kW	100%

- (4) Pool Participant shall pay AMP's Service Fee B (\$0.00058 / kWh as of January 1, 2023) for all energy sold or arranged for and delivered pursuant to this Schedule.

SECTION 6. DELIVERY POINTS AND INTERCONNECTION POINTS

The initial Delivery Point(s) pursuant to this Schedule shall be the point(s) where the facilities of Pool Participant currently are electrically connected to the transmission system. Changes to or additional delivery points shall be arranged subject to negotiations with the interconnecting Transmission Zone or the orders of any tribunal of competent jurisdiction.

SECTION 7. SPECIAL TERMS AND CONDITIONS

- (1) Unless otherwise agreed, Pool Participant shall provide, or cause to be provided, at no cost to AMP, at each Delivery Point suitable space for metering, monitoring or communications equipment reasonably required by AMP.

Unless otherwise agreed, the Transmission Zone has installed suitable meters for the purpose of determining billing quantities hereunder. All meters and metering equipment installed by the Transmission Zone are and shall remain property of the Transmission Zone.

Transmission Zone has agreed to provide to AMP and for AMP's use, metering data from each of the meters employed hereunder. Pool Participant shall provide or cause to be provided, at its expense, to AMP real time metering data from any generating facilities operated within Pool Participant's distribution system.

- (2) The Parties shall keep such records as may be needed to afford a clear history of all transactions under this Schedule. The originals of all such records shall be retained by each Party for a minimum of three (3) years and copies shall be delivered to the other Party upon request.
- (3) Changes to this Pool Agreement, including but not limited to additions of new products as Pool Resources, modifications to address changes to the applicable rules as set forth in the PJM Governing Documents or additions to or removal of any Pool Participants may be added to the Pool only with the written or verbal approval of a Majority Vote of the Pool Participants then participating in the Pool.
- (4) In the event that the Pool Participant enacts an ordinance or institutes a policy that allows its customers the choice to purchase their electricity from a supplier other than Pool Participant (hereinafter "customer choice") prior to the ending date of a Pool Resource, the Pool Participant shall continue to be financially responsible for that share of the Pool Resource that the Pool Participant would have used (based on actual usage from the previous calendar year) but for exercise of the choice of one or more of its customers to purchase their electricity from a supplier other than Pool Participant, until the expiration of the Pool Resource or the customer(s) returns to the Pool Participant's system.

The method for calculating the financial impact of the unused portion of the Pool Resource shall be based on the positive differential between (1) the actual cost of the unused portion of the Pool Resource, until the expiration of the Pool Resource, and (2) the market value of the unused portion of the Pool Resource, as determined by AMP.

- (5) All terms and conditions of the Master Services Agreement in effect between the Parties that are not in conflict with the terms and conditions of this Schedule shall be applicable to this Schedule.

SECTION 8. MISCELLANEOUS

- A. **Assignment.** Neither this Agreement nor any interest therein shall be assigned by any Party without the prior written consent of the other Party.
- B. **No Waiver.** A Party's failure to insist in any one or more instances upon strict performance of any provision of the Agreement, or failure or delay to take advantage of any of its rights or remedies hereunder, violation, or default, shall not be construed as a waiver by the Party of any such performance, provision, right, breach, violation, or default, either then or for the future. Any waiver shall be effective only if in writing and signed by each Party's authorized representative, and only with respect to the particular case expressly covered therein.
- C. **Law and Venue.** This Agreement shall be governed by, construed, and enforced in accordance with the law of the State of Ohio. Any legal claim, suit, proceeding, or action brought by a Party shall be brought in an Ohio state court or a federal court located in Ohio.
- D. **Headings.** The headings assigned to the Articles of this Agreement are for convenience only and shall not limit the scope and applicability of the Articles.
- E. **Survival.** All provisions providing for limitation of or protection against loss or liability of the Parties, including all protections and indemnities, shall survive termination, suspension, cancellation or expiration of this Agreement.
- F. **Force Majeure.** The Parties acknowledge that Force Majeure events may affect the performance of this Agreement and agree that the Parties shall not be liable to each other for any breach or failure to perform under this Agreement caused by Force Majeure.
- G. **Limitations of Liability.** The liability of a Party under this Agreement shall be limited to direct actual damages. No Party shall be liable for any special, indirect, incidental, punitive, or consequential losses, damages, judgments, fines, penalties, costs or expenses whatsoever including, but not limited to: (i) delayed, lost or reduced profits, revenues, efficiency, productivity, business opportunities; or (ii) increased or extended overheads, operating, maintenance, depreciation, financing costs or expenses arising out of, related to, or in connection with the performance or breach of this Agreement whether based upon contract, tort (including negligence), warranty, strict liability or under any other legal or equitable theory.

SECTION 9. PRIOR SCHEDULES

Any Pool Schedules entered into by the Participant and any amendments thereto shall terminate on the Effective Date of this Schedule and shall no longer be of any force or effect after the Effective Date of this Schedule except to the extent billing or like matters remain outstanding.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of the date written by their duly authorized representatives.

CITY OF JACKSON, OHIO

AMERICAN MUNICIPAL POWER, INC.

BY: *RANDOLPH*

BY: _____

TITLE: MAYOR

Jolene M. Thompson
President/CEO

DATE: 11-27-23

DATE: _____

APPROVED AS TO FORM:

APPROVED AS TO FORM:


Municipality's Legal Counsel

BY: _____
Lisa G. McAlister
General Counsel

EXHIBIT A
GENERATION SCHEDULE

CITY OF JACKSON, OHIO

GENERATION RESOURCE = [INSERT GENERATOR NAME/DESCRIPTION]

- A. _____ Pool Participant will submit a daily schedule to AMP of BTMG that will be treated as Non-Pool Power (i.e., the schedule will be the Non-Pool Power).
- B. _____ Pool Participant wishes to serve a portion of its load at the Real Time LMP. Pool Participant will submit a daily schedule to AMP of the amount of its load that will be treated as Pool Participant's Energy Obligation.
- C. _____ Pool Participant will NOT submit a daily schedule. Pool Participant's hourly schedule for BTMG shall be equal to actual output of BTMG, so that all output will be treated as Non-Pool Power.
- D. _____ Pool Participant will NOT submit a daily schedule. Pool Participant's hourly schedule shall be equal to 0 MW, so that actual output of BTMG will be credited at the Real Time LMP.

An example of the Daily Schedule to be submitted under options A and B is shown below:

Start Date	Hours Ending	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
03/01/23	Wed	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/02/23	Thu	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/03/23	Fri	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/04/23	Sat	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/05/23	Sun	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/06/23	Mon	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/07/23	Tue	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/08/23	Wed	7	7	7	7	7	7	14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/09/23	Thu	7	7	7	7	7	7	14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/10/23	Fri	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/11/23	Sat	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/12/23	Sun	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/13/23	Mon	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/14/23	Tue	7	7	7	7	7	7	14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/15/23	Wed	7	7	7	7	7	7	14	14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
03/16/23	Thu	7	7	7	7	7	7	14	14	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7

EXHIBIT B
ASSIGNMENT OF PJM AND POOL COSTS
BASED ON PJM CHARGES AS OF APRIL 1, 2023

PJM Line Item	Pool Energy	Transmission Demand	Ancillary	Capacity	Direct to Participant
1100 Network Integrated Transmission Service		X			
1108 Transmission Enhancement		X			
1109 MTEP Cost Recovery		X			
1115 Transmission Enhancement Settlement		X			
1120 Other Supporting Facilities					X
1130 Firm Transmission Service	X				
1140 Non-Firm Transmission Service	X				
1200 Day-ahead Spot Market Energy	X				
1205 Balancing Spot Market Energy	X		X		
1210 Day Ahead Transmission Congestion	X				X
1215 Balancing Transmission Congestion	X				
1220 Day Ahead Transmission Losses	X				X
1225 Balancing Transmission Losses	X				
1230 Inadvertent Interchange			X		
1242 Day-Ahead Load Response Allocation			X		
1243 Real-Time Load Response Allocation			X		
1245 Pre and Emergency Load			X		

Response					
1250 Meter Error Correction			X		
1301 PJM Control Area Administration			X		
1302 PJM FTR Administration			X		
1303 PJM Market Support			X		
1305 PJM Capacity Resource / Obligation Mgt				X	
1313 PJM Settlement Inc.			X		
1314 Market Monitoring Unit Funding			X		
1315 FERC Annual Recovery			X		
1316 Organization of PJM States, Inc. Funding			X		
1317 N. American Electric Reliability (NERC)			X		
1318 Reliability First Corporation (RFC)			X		
1319 Consumer Advocates of PJM States, Inc			X		
1320 Transmission Owner Dispatch Service			X		
1330 Reactive Supply from Generation		X			
1340 Regulation and Frequency Response			X		
1360 Synchronized Reserve			X		
1361 Secondary Reserve			X		
1362 Non-Synchronized Reserve			X		
1365 Day-ahead Scheduling Reserve			X		

1370 Day-ahead Operating Reserve			X		
1371 Day-ahead Op Reserves for Load Resp			X		
1375 Balancing Operating Reserve			X		
1376 Balancing Op Reserves for Load Resp			X		
1380 Black Start Service		X			
1500 Financial Trans. Rights Auction	X		X		X
1610 Locational Reliability				X	
2100 Network Integrated Transmission Credit		X			
2130 Firm PTP Transmission Service Credit		X			
2140 Non-Firm PTP Transmission Svc. Credit		X			
2211 Day-ahead Transmission Congestion	X		X		X
2215 Balancing Transmission Congestion			X		
2220 Transmission Losses Credits			X		
2260 Emergency Energy			X		
2320 Transmission Owner Dispatch Svc Credit			X		
2330 Reactive Supply from Generation Credit		X			
2340 Regulation and Frequency Resp Credit			X		
2360 Balancing Synch			X		

Reserve Credit					
2361 Balancing Secondary Reserve Credit			X		
2366 Day-Ahead Synch Reserve Credit			X		
2367 Day-Ahead Secondary Reserve Credit			X		
2368 Day-Ahead Non- Synch Reserve Credit			X		
2370 Day Ahead Operating Reserve Credit			X		
2375 Balancing Operating Reserve Credit			X		
2380 Black Start Service Credit		X			
2390 Fuel Cost Policy Penalty Credit			X		
2500 Financial Transmission Rights Auction	X		X		X
2510 Auction Revenue Rights		X			
2600 RPM Auction				X	
2630 Capacity Transfer Rights				X	
2640 Inc. Capacity Transfer Rights				X	
2650 Auction Specific MW Transaction				X	
2661 Capacity Resource Deficiency Credit				X	
2667 Bonus Performance				X	
Excess Energy Purchase Section C(2)(e)(ii)	X				
Generation Deviation Section E	X				
BTMG Capacity Peak				X	

Shaving Section G(3)					
BTMG Transmission Peak Shaving Sect. E(2)		X			
Calculated Inadvertent Charges per Exhibit B	X		X		
Charges/Credits moved from Energy Pool to Ancillary Service when PCA is outside of bandwidth	X		X		

Exhibit C
Pool Participants

Member	Pool	Transmission Zone	Pricing Point
Amherst	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Beach City	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Bowling Green	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Bowling Green (Water Plant)	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Bowling Green (Waste Water Plant)	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Bradner	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Brewster	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Cleveland	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Columbiana	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Custar	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Cuyahoga Falls	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Edgerton	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Ellwood City	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Elmore	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Galion	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Genoa	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Grafton	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Grove City	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Haskins	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Holiday City (Village Load)	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Hubbard	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Hudson	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Huron	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Huron (Greenhouse Load)	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Lodi	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Lucas	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Milan	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Monroeville	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Montpelier	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Napoleon	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
New Wilmington	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Newton Falls	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Niles	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Oak Harbor	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Oberlin	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Oberlin (RNG Plant)	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Painesville	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Pemberville	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Pioneer	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)

Prospect	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Seville	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
South Vienna	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Toledo	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Wadsworth	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Wampum	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Wellington	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Woodville	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Zelienople	NPP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Monroeville (Data Center Load)	Monroeville e-GMP	ATSI	AMP-ATSI LMP (PJM Node 115944309)
Dover	PJM Pool	AEP	AMP-OHIO LMP (PJM Node 43653269)
Holiday City (Chase Brass Load)	PJM Pool	AEP	AMP-OHIO LMP (PJM Node 43653269)
Jackson	PJM Pool	AEP	AMP-OHIO LMP (PJM Node 43653269)
Orrville	PJM Pool	AEP	AMP-OHIO LMP (PJM Node 43653269)
New Knoxville	PJM Pool	AEP	AMP-OHIO LMP (PJM Node 43653269)
St. Marys	PJM Pool	AEP	AMP-OHIO LMP (PJM Node 43653269)
Woodsfield	PJM Pool	AEP	AMP-OHIO LMP (PJM Node 43653269)
Arcadia	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Bloomdale	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Bryan	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Carey	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Clyde	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Cygnets	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Deshler	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Greenwich	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Ohio City	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Plymouth	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Republic	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Shiloh	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Sycamore	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Wharton	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Wapakoneta	OMEG	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Wapakoneta (Greenhouse Load)	Green- house	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Wapakoneta (Paper Mill Load)	Paper Mill	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Wapakoneta (Box Plant Load)	Box Plant	AEP	AEPOHIO RESID AGG LMP (PJM Node 1269364670)
Arcanum	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Celina	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Eldorado	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Jackson Center	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)

Lakeview	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Mendon	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Minster	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
New Bremen	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Piqua	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Tipp City	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Versailles	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Waynesfield	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Yellow Springs	WASG	DAYTON	DAY RESID AGG LMP (PJM Node 116472937)
Berlin	CPPG	PENELEC	PENELEC_RESID_AGG LMP (PJM Node 116472951)
East Conemaugh	CPPG	PENELEC	PENELEC_RESID_AGG LMP (PJM Node 116472951)
Girard	CPPG	PENELEC	PENELEC_RESID_AGG LMP (PJM Node 116472951)
Hooversville	CPPG	PENELEC	PENELEC_RESID_AGG LMP (PJM Node 116472951)
Smethport	CPPG	PENELEC	PENELEC_RESID_AGG LMP (PJM Node 116472951)
Summerhill	CPPG	PENELEC	PENELEC_RESID_AGG LMP (PJM Node 116472951)
Blakely	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Catawissa	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Duncannon	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Hatfield	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Lansdale	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Lehighton	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Mifflinburg	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Quakertown	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Saint Clair	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Schuylkill Haven	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Watsonstown	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Weatherly	EPPG	PPL	PPL_RESID_AGG LMP (PJM Node 116472953)
Goldsboro	EPPG	METED	AMP-METED LMP (PJM Node 123905781)
Kutztown	EPPG	METED	AMP-METED LMP (PJM Node 123905781)
Lewisberry	EPPG	METED	AMP-METED LMP (PJM Node 123905781)
Royalton	EPPG	METED	AMP-METED LMP (PJM Node 123905781)
Coldwater	MSCPA	METC/CONS	MSCPA
Hillsdale	MSCPA	METC/CONS	MSCPA
Marshall	MSCPA	METC/CONS	MSCPA
Clinton	MSCPA	ITC	MSCPA
Hamilton	Hamilton	DUKE	DEOK_RESID_AGG LMP (PJM Node 1069452904)
Lebanon	Lebanon	DUKE	DEOK_RESID_AGG LMP (PJM Node 1069452904)
Georgetown	Georgetown	DUKE	DEOK_RESID_AGG LMP (PJM Node 1069452904)
Williamstown	Williamstown	DUKE	WILLIAMSTOWN LMP (PJM Node 128774205)
Cannelton, IN	Cannelton	SIGE	Cannelton

Berlin, MD	Berlin	DPL	BERLIN DPL LMP (PJM Node 615760)
Bedford, VA	Bedford	AEP	BLUE RIDGE LMP (PJM Node 35024709)
Danville, VA	Danville	AEP	BLUE RIDGE LMP (PJM Node 35024709)
Richlands, VA	Richlands	APS	BLUE RIDGE LMP (PJM Node 35024709)
Front Royal	Front Royal	APS	BLUE RIDGE LMP (PJM Node 35024709)
Columbus	Columbus	AEP	Columbus
Ephrata	Ephrata	PPL	EPHRATA LMP (PJM Node 51220)
Perkasie	Perkasie	PPL	PERKASIE LMP (PJM Node 32711185)
New Martinsville, VA	West Virginia	APS	NEWMARTINSVILLE-AP LMP (PJM Node 276771068)
Philippi	West Virginia	APS	PHILIPPI-AP LMP (PJM Node 276771074)
DEMEC	N/A		
Glouster	N/A		
Marshallville	N/A		
Paducah	N/A		
Princeton	N/A		
Shelby	N/A		
St. Clairsville	N/A		
Westerville	N/A		
Wyandotte	N/A		