



KENTUCKY MUNICIPAL ENERGY AGENCY

# **Request for Proposals For Energy Management Partner**

**July 25, 2018**

The Kentucky Municipal Energy Agency (KyMEA) seeks proposals from qualified providers of energy management services. KyMEA intends to make an initial determination for an Energy Services Partner (ESP) by August 23, 2018. Proposers are required to submit their RFP no later than 2 pm on August 14, 2018, and meet other requirements specified in this RFP.

## REQUEST FOR PROPOSAL

PROPOSAL DESCRIPTION	ENERGY MANAGEMENT PARTNER
DUE DATE & TIME	August 14, 2018 @ 2:00 p.m. (EDT)  Proposals received after this date and time will be deemed unresponsive and returned to the bidder unopened.
DELIVERY E-MAIL	<a href="mailto:rleesman@kymea.org">rleesman@kymea.org</a>
SPECIFICATION CONTACT	Rob Leesman Vice President, Market Analytics Kentucky Municipal Energy Agency 1700 Eastpoint Parkway, Suite 220 Louisville, KY 40223  (502) 640-1315 <a href="mailto:rleesman@kymea.org">rleesman@kymea.org</a>
SCOPE	Kentucky Municipal Energy Agency is seeking proposals for an energy management system and related services.

### **Purpose of RFP**

The Kentucky Municipal Energy Agency (KyMEA), formed pursuant to Sections 65.210 to 65.300 of the Kentucky Revised Statutes, as amended, known as the "Interlocal Cooperation Act" (the "Act"), seeks written proposals from qualified firms for energy management systems and services ("Proposal"). KyMEA intends to enter into an agreement with an Energy Service Provider for a minimum term of 3 years commencing on May 1, 2019. The Energy Service Provider will provide 24/7 service for KyMEA's operations and trading desks. See Scope of Work.

## **GENERAL INSTRUCTIONS**

1. To be considered, all proposals must be received via mail or e-mail, not later than the due date and time. Any proposal received after the specified time shall not be under consideration. Proposals may be withdrawn, altered and/or resubmitted at any time prior to the due date and time.
2. **Questions:** Proposers can e-mail questions or clarifications they may have in reference to this RFP provided such questions and requests for clarification are received by 2:00 p.m. EDT on August 3, 2018 by e-mail.
  - e-mail to: rleesman@kymea.org
3. This RFP will be conducted under the provisions of the Kentucky Model Procurement Code, specifically KRS 45A.370 titled Competitive Negotiation. Proposals shall be reviewed, and discussions conducted with respondents whose proposals are determined to be reasonably susceptible of being selected for award based on qualifications and evaluation factors in this RFP. Discussions will not disclose any information derived from proposals submitted by other respondents.

Award shall be made to the responsible Proposer whose proposal is determined, in KyMEA's sole discretion, to be the most advantageous to Kentucky Municipal Energy Agency, unless KyMEA rejects all proposals.

KyMEA reserves the right to negotiate and contract with any firm it deems suited to provide the desired software and services. It also reserves the right to accept or reject any or all proposals, to waive irregularities and technicalities and to request submission of additional information.

Any award granted under this RFP is subject to KyMEA's successful negotiation of any remaining unresolved terms to be included in a service agreement with a responsible Proposer in order to achieve the best and most advantageous terms and conditions for KyMEA and its Members relating to software and services for energy management.

Proposer understands that KyMEA reserves the right to make an award on the basis of initial proposals without discussions, subject to the successful negotiation of a final service agreement.

4. **Documents Submitted:** All documents submitted in response to this RFP become the property of KyMEA upon delivery to KyMEA and may be appended to any formal documentation that would further define or expand the contractual relationship between KyMEA and the Proposer. Each Proposer, as an express condition for KyMEA's consideration of such proposal, agrees that the contents of every other proposal are

confidential and proprietary, and waives any right to access to such documents. No submission or supporting documentation will be returned to Proposer except as part of the contract with successful Proposer. Those submitting proposals should recognize KyMEA is a public body and, as a public body, KyMEA is subject to the disclosure requirements of Kentucky's public records law and must abide by those public record laws. Neither party shall be liable for disclosures required by law.

5. **Proprietary/Confidential Information:** A proposal may include data that the respondent does not want disclosed to the public or used by KyMEA for any purpose other than the proposed evaluation. Proprietary data should be specifically identified as such on every page where the same may be contained. KyMEA or its designated representatives, including staff, board members and consultants, solely for the purpose of evaluating the proposal, will use such information. In such case, reasonable care will be exercised so that data identified as confidential will not be disclosed or used without the respondent's permission, except to the extent provided in a resulting contract or to the extent required by law. This restriction does not limit KyMEA's right to use or disclose any data contained in the proposal if such data are obtainable from another source. In any event, KyMEA, or its employees, board, and consultants will not be liable for the accidental disclosure of such data, even if it is marked.
6. Failure to comply with any of the instructions in this RFP package may result in the proposal not being placed under consideration for bid award.

## **SPECIFIC INSTRUCTIONS FOR PROPOSALS**

**Contact Information:** All correspondence and questions concerning this RFP and its attachments shall be directed in writing via mail or e-mail to the KyMEA representative listed below:

Rob Leesman  
Vice President, Market Analytics  
Kentucky Municipal Energy Agency  
1700 Eastpoint Parkway, Suite 220  
Louisville, KY 40223  
[rleesman@kymea.org](mailto:rleesman@kymea.org)

Failure on the part of any Proposer to make a careful examination of the RFP documents or to investigate thoroughly the conditions of the RFP shall not be grounds for a declaration that the Proposer did not understand the RFP package.

From the date this RFP is advertised until a notice of recommended award, notice of rejection of all proposals or other notice is made, Proposers are required to confine all communication related to this RFP exclusively to the KyMEA representative listed above and any other representatives designated by that person. Unless authorized in advance, no contact related to the RFP, will be permitted between a Proposer, its employees, representatives, or affiliates and any board member, officer, official, director, employee, representative or staff of KyMEA or any of the municipals that are, or are considering becoming, Members of KyMEA. Any unauthorized contact will be the basis for disqualification of the Proposer from further consideration.

All questions regarding this RFP, technical or otherwise, should be submitted electronically by e-mail and shall be received by KyMEA by 2:00 p.m. EDT on August 3, 2018.

Only responses provided electronically by KyMEA will be considered official. A verbal response by KyMEA will not be considered an official response. Responses to questions determined by KyMEA, at its sole discretion, to be applicable to the RFP process in general and all published addenda will be provided to all persons who request the RFP and to potential Proposers to whom this RFP has been distributed by KyMEA.

If discussions pertaining to the revision of the specifications or quantities are held with any potential Proposer, all other potential Proposers shall be afforded an opportunity to take part in such discussions. A Request for Proposals based on revised specifications or quantities shall then be issued as promptly as possible, shall provide for an expeditious response to the revised requirements, and shall be awarded upon the basis of the lowest evaluated bid price determined by applying the factors set forth in the Request for Proposals.

After receipt of proposals, KyMEA intends to request any clarification deemed necessary and then perform screening and other analyses to identify those proposals that are deemed reasonably susceptible of being selected for award. Further discussions and, if appropriate, negotiations will then be initiated with a Proposer(s) deemed reasonably susceptible of being selected for award with the goal that contract terms can be finalized and contracts executed within 45 days after submission of proposals.

**Information to be submitted:** Proposals must include, but need not be limited to, the following information:

1. Sufficient information and detail shall be submitted with the proposal to permit KyMEA's full understanding of the proposal offered. Description of software and services, cutsheets, or brochures shall be provided where applicable.
2. Proposer shall include in the proposal a brief summary of the company's profile that identifies pertinent details for the desired services. Including: Company background, personnel, resumes of anticipated services team, relevant experience, and past and present client listing and references.
3. Provide a discussion of the proposed software and services. The discussion will include the value provided to KyMEA and pricing structure.
4. Proposed implementation methodology including task list, communications with KyMEA, timetable for completing tasks and delivery of services described in the Scope of Work Section of this RFP. Include schedule and due dates for providing deliverables defined herein.
5. Provide a proposed contract with standard terms, conditions and warranties.
6. In conjunction with the software and services potentially to be provided, the Proposer should demonstrate that they have the necessary business systems to support the performance of the services being proposed.
7. Clearly delineate the Proposers expectation for services/interfaces to be provided by KyMEA to support the Proposers functions in performing the services requested.

**Nondisclosure Agreement (NDA):** Proposer(s) selected for contract negotiations will be requested to sign an NDA.

KyMEA anticipates taking reasonable steps consistent with applicable Kentucky law relating to governmental agencies and open records requests to maintain the confidentiality of proposed pricing and other commercially sensitive information provided by Proposers, including, upon request of a Proposer, entering into a non-disclosure agreement (NDA) acceptable to KyMEA. The form of an acceptable NDA is attached hereto as Exhibit A.

**Proposal Evaluation:** KyMEA will review all proposals for completeness and adherence to the requirements of this RFP. All proposals will be reviewed based upon the factors contained in the following section of this RFP. Proposers must have the necessary experience, organization of team, and financial capability to fulfill the terms and conditions of the contract to provide KyMEA with the appropriate information and disclosures to complete its evaluation of the proposal. KyMEA reserves the sole right to determine the sufficiency of the experience and qualifications of all Proposers and to select the proposal based on the evaluation factors to enter into a final contract.

**Acceptance and Disqualification of Proposals:** KyMEA reserves the right to accept the proposal(s) that, in its sole judgment, best meet the needs and objectives of KyMEA and its Members, to reject any and all proposals, and to waive irregularities and formalities in any proposal that is submitted.

Without limiting the generality of the foregoing, KyMEA may accept or reject proposals that are incomplete or irregular, omit any item that the RFP requires, or do not include timely submittal of all required RFP information.

**Proposal Commitment:** Proposer must hold its proposal provisions firm for a minimum of 90 days after the date the proposal is submitted to KyMEA.

**Evaluation of Proposals:** The evaluation of proposals submitted in response to this RFP will consider the impact of a proposal on KyMEA's efficiency and total cost in managing and planning its energy portfolio and power supply for its members.

Consistent with the above, the factors to be considered in the evaluation, in declining order of relative importance, are the following:

1. Projected net cost of services provided using the criteria and methodology set forth in the proposal and assumptions made by KyMEA;
2. Flexibility and optionality afforded to KyMEA under the proposal;
3. Uncertainties concerning performance and availability;
4. Implementation schedule with shadow settlements;
5. Uncertainties concerning commencement of the services required by May 1, 2019;
6. Creditworthiness;
7. Knowledge and experience of personnel managing account and bench strength;
8. Conflicts of interest;
9. Does Proposer keep its own book; and
10. Does Proposer take possession of power or is it strictly a broker.

KyMEA reserves the unilateral right to make all decisions and judgments as to the assessment of all proposals, the appropriate assumptions to be used in the analyses, and the weight to be given to each factor.

This RFP will be conducted under the provisions of the Kentucky Model Procurement Code, specifically Kentucky Revised Statutes 45A.370 titled Competitive Negotiation. Written or oral discussions will be conducted with the Proposers whose proposals are determined in writing by KyMEA or its consultants to be reasonably susceptible of being selected for award based on qualifications and the evaluation factors provided in the RFP.

Any award granted hereunder is subject to KyMEA's successful negotiation of any remaining unresolved terms to be included in a service agreement with a responsible Proposer in order to achieve the best and most advantageous terms and conditions for KyMEA and its Members relating to software and services for energy management.

Proposer understands that KyMEA reserves the right to make an award on the basis of initial proposals without discussions, subject to the successful negotiation of a final power purchase agreement.

**Nonconforming Proposals:** Proposers are not precluded from submitting proposals for alternatives outside of the specific requirements of this RFP for KyMEA's potential consideration. KyMEA reserves the right, but has no obligation, to evaluate and qualify any such nonconforming proposals as it may determine, in its sole discretion, to be in its interest to consider. Any proposals not meeting the requirements of this RFP are subject to disqualification.

**Other Considerations and Requirements:** Consistent with KRS 45A.494, Kentucky resident preference will be a consideration in the evaluation of qualified proposals.

A duly authorized representative of the Proposer must sign all proposal documents.

**Basis of Award:** If an award is made, it shall be made to the responsible Proposer whose proposal is determined in writing to be the most advantageous to KyMEA based upon the evaluation factors set forth in the RFP and the reciprocal preference for resident bidders required by KRS 45A.494, provided, however, any award made hereunder by KyMEA shall be subject to KyMEA's successful negotiation of a final service agreement in order to achieve terms and conditions which are determined by KyMEA, in its sole discretion, to be most advantageous to KyMEA and its Members based upon the evaluation factors set forth in the RFP.



## **RFP Award and Implementation Schedule**

Presented below is the anticipated schedule of completion dates for the RFP Award and Implementation Process:

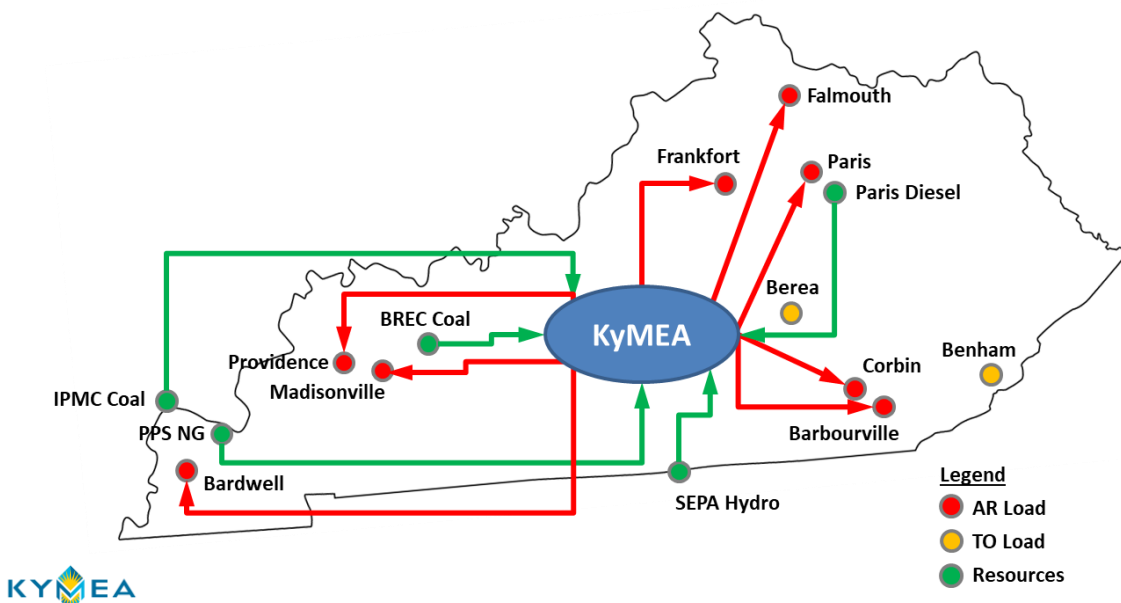
Release RFP	July 25, 2018
Questions or Requests for Clarification Deadline	August 3, 2018
Proposal Submittal Deadline	August 14, 2018
Determination of Proposer(s)	August 23, 2018
Negotiations Completed	September 20, 2018
Contract Awarded	September 27, 2018
Start-Up and Implementation	4 <sup>th</sup> Quarter, 2018
Shadow Settlements	1 <sup>st</sup> Quarter, 2019
Go Live	May 1, 2019

## Background

Kentucky Municipal Energy Agency (KyMEA), formed in September 2015, will provide electric power to KyMEA member municipal electric systems beginning May 1, 2019.

- KyMEA currently has eight (8) all requirements (“AR”) members. The AR members are required to purchase all their energy and capacity from KyMEA.
  - Barbourville
  - Bardwell
  - Corbin
  - Falmouth
  - Frankfort
  - Paris
  - Providence
  - Madisonville
- KyMEA currently has two (2) transmission only (“TO”) members.
  - Berea
  - Benham
- KyMEA is responsible for the energy imbalance of the ten (10) combined AR and TO members.
- KyMEA has purchase power agreements (PPA) in place to serve the energy and capacity needs of the eight AR members from the following entities:
  - Illinois Power Marketing Company (IPMC Coal)
  - Big Rivers Electric Corporation (BREC Coal)
  - Paducah Power System (PPS NG)
  - Southeastern Power Administration (SEPA Hydro)
  - City of Paris, Kentucky (Paris Diesel)

## KyMEA AR and TO Members and Resources



## Scope of Work

KyMEA is seeking proposals for an energy services partner (ESP) to provide 24/7 service for the operations and trading desks with KyMEA daily involvement. KyMEA's Market Analytics Center (MAC) will house a SCADA system used to track loads and resources and a video wall to display market information. As partners, KyMEA's MAC will work collaboratively with the ESP on hedging strategy, short-term planning, and hourly load forecasting.

KyMEA intends to enter into an agreement with an ESP for a minimum term of 3 years commencing on May 1, 2019. Proposals may offer a term greater than 3 years and may offer extension provisions.

KyMEA's mission is to serve and economically dispatch from available resources the combined loads of KyMEA's Member municipal electric systems. Beginning in May 2019, KyMEA anticipates supplying all requirements service to the following KyMEA Members (AR Members): the Cities of Bardwell, Falmouth, Madisonville, Paris, and Providence, the Frankfort Plant Board, the Barbourville Utility Commission, and the Corbin City Utilities Commission. In addition, KyMEA will be responsible for the energy imbalance for the KyMEA TO members (Benham and Berea). The annual demand and energy requirements of the KyMEA AR Members are projected to be approximately 304 MW and 1,406,000 MWhs, respectively, in 2019.

KyMEA anticipates supplying certain capacity, energy, and potentially other services to its non-AR Members and future KyMEA Members who have expressed an interest in considering membership in KyMEA in the future. Addition of other members may increase KyMEA's capacity and energy requirements. Proposers should address additional costs or service fees, if any, that would apply if those additional services are required by KyMEA and its Members.

Proposals should address the following services:

1. Day-Ahead, Load and Resource Management, Marketing and Scheduling

Services to be provided by Proposer

- A. Management of KyMEA's day-ahead scheduling and resource management requirements including a 7-day unit commitment updated each day.
- B. Adjusting generation/market portfolio to match KyMEA's load requirements.
- C. Dispatch Organization.

- D. Recommending and/or executing re-dispatch of power trades to balance load and resources.
- E. Coordinating with KyMEA's Balancing Authority (LG&E/KU), KyMEA's resource portfolio, MISO, PJM, TVA, SERC, RFC, NERC, FERC, and any third-party counterparties, transmission service providers or markets.
- F. Submission of day-ahead schedules.
- G. Communicating all dispatch instructions to KyMEA's supply portfolio.
- H. As market conditions dictate and pursuant to established trading and risk management policies and procedures, the marketing of any excess generation and, as needed, the procurement of transmission and power.
- I. Ability to provide future power pooling optimization capabilities in the event new loads and resources are added to KyMEA's portfolio outside of LG&E/KU's BA (e.g. MISO, PJM, TVA).

## 2. Real-Time Load and Resource Management, Marketing and Scheduling

Services to be provided by Proposer

- A. Adjusting generation portfolio to match KyMEA's load requirements.
- B. Recommending and/or executing re-dispatch of power trades to balance load and resources.
- C. Coordinating with KyMEA's Balancing Authority (LG&E/KU), KyMEA's resource portfolio, MISO, PJM, TVA, SERC, RFC, NERC, FERC, and any third-party counterparties, transmission service providers or markets.
- D. Submission of real time schedules.
- E. Communicating all dispatch instructions to KyMEA's supply portfolio.
- F. Management of real time generation outages, transmission outages and incidents of power curtailments.

- G. As market conditions dictate and pursuant to established trading and risk management policies and procedures, the marketing of any excess generation and, as needed, the procurement of transmission and power.
- H. Ability to provide future power pooling optimization capabilities in the event new loads and resources are added to KyMEA's portfolio outside of LG&E/KU's BA (e.g. MISO, PJM, TVA).

3. Balance of the Month Planning and Marketing

System and market changes warrant continued oversight of KyMEA's forward position. As needed, the Proposer would manage KyMEA balance of the month scheduling and resource management requirements.

4. Forward Month(s) Planning and Marketing

The Proposer shall support efforts related to the implementation of strategies as they relate to hedge plan compliance, supply of long term obligations, optimization of generating portfolio and the purchase and sale of physical power and/or transmission.

5. Transmission Management

As needed the Proposer shall support the analysis and procurement of transmission and FTRs and provide congestion and basis risk analysis.

6. Bilateral Settlements, Accounting and Reporting

The Proposer shall perform the following:

- A. Counterparty checkout.
- B. Verification of trades and dispute resolution with all counterparties and RTOs.
- C. Generation of the following reports:
  - i. Summary of daily RTO, trading platform and counterparty transactions.
  - ii. Summary of daily and monthly P&L.
  - iii. Summary of monthly RTO, trading platform and counterparty transactions.
  - iv. Counterparty credit limits.
  - v. Historical and daily forward price marks.

## 7. Risk Management and Monitoring

The Proposer shall support efforts related to the management of KyMEA's overall market position risk. At a minimum, this shall include the following:

- A. Monitoring of daily mark to market values of KyMEA's forward positions.
- B. Compliance with:
  - i. KyMEA's trading authority policy
  - ii. KyMEA's hedge policy
  - iii. KyMEA's hedge plan
  - iv. KyMEA's energy risk management policy

## 8. Credit Management

This service shall provide evaluation of counterparty creditworthiness and make recommendations for credit approval and limits. Service shall include:

- A. Periodic review of counterparty credit.
- B. Monitoring of counterparty limits.
- C. Identification of any potential counterparty limit violations.
- D. Negotiate ISDAs and EEIs to increase KyMEA's reach into the bilateral power markets.
- E. Back Office administration support for participation in power/fuel exchanges (e.g. Intercontinental Exchange (ICE), Nodal Exchange)
- F. Back Office support with clearing account service providers.

## 9. Advisory Services

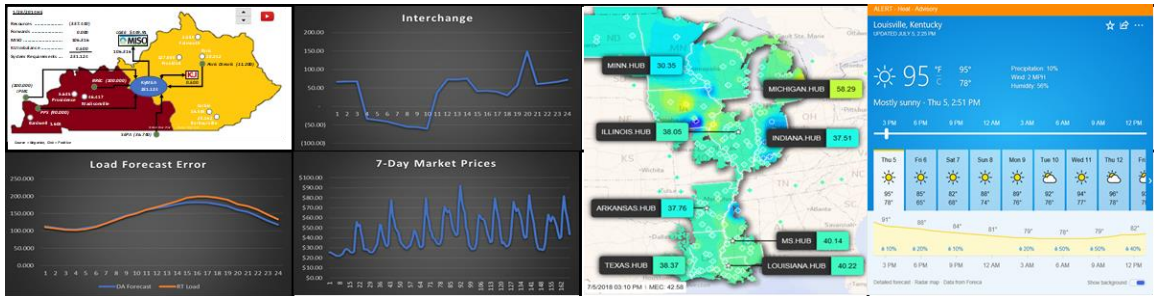
The following advisory services will be provided on an as needed and fee for service basis. Items include, but are not limited to:

- A. Hedging analysis and strategy formulation.
- B. Counterparty contract negotiation and monitoring.
- C. Regulatory assistance.

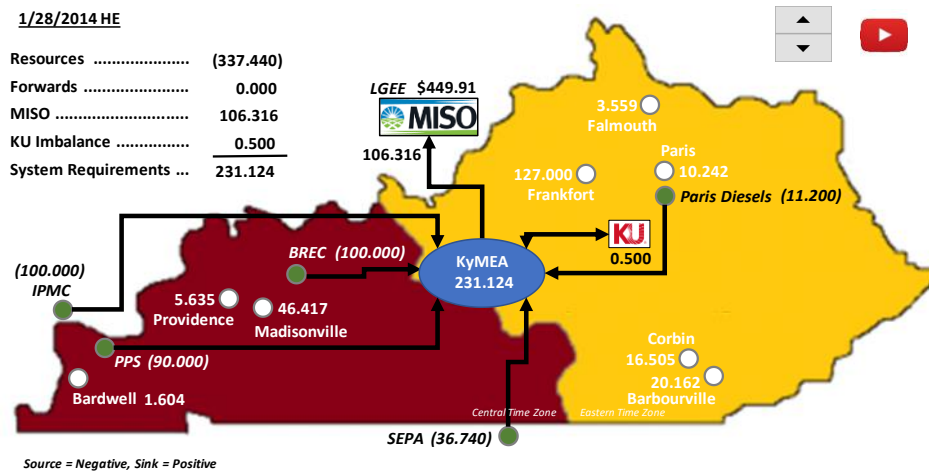
## 10. Market Dashboards

KyMEA's Market Analytics Center (MAC) supports a 4.5' x 16.5' video wall capable of displaying eight (8) individual HDMI images. The Proposer will support market data and customized dashboards to provide real-time and short-term market data feeds including GIS images.

### MAC Video Wall Example



### KyMEA GIS Dashboard Prototype



## 11. Data and Communications Redundancy

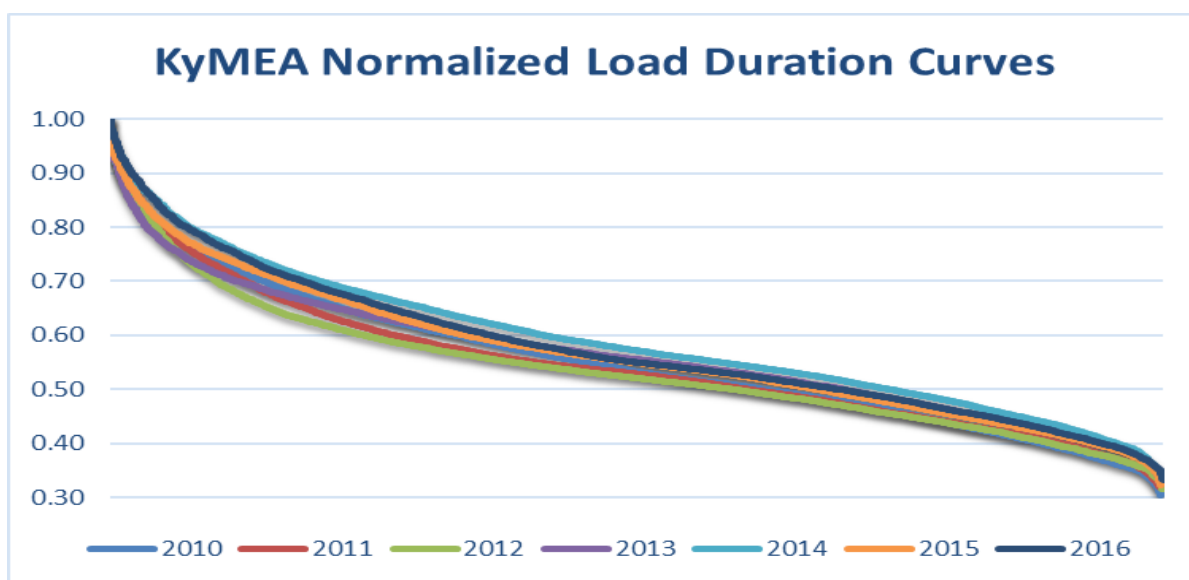
Proposer shall list preferred and supported data communications and protocols, cyber security methods, data transfer rates, and backup systems. Proposer shall have the capability to provide redundant SCADA/communications hardware and services, mirroring the MAC SCADA/communications capabilities.

## KyMEA Loads and Resources

### KyMEA Loads

KyMEA currently has eight (8) all requirements members. The 7-year average energy, coincident summer peak, load factor, coincidence factor, and coincidence hour for the AR members is shown in the table below. The graph shows the historical normalized load duration curves.

Year	Energy (MWh)	Summer CPeak (MW)	Load Factor (%)	Coincidence Factor (%)	Coincidence Peak Hour
2010	1,428,511	295	55.4%	97.8%	8/4/2010 HE14
2011	1,357,540	283	54.7%	96.9%	7/11/2011 HE15
2012	1,337,375	283	53.7%	98.0%	7/26/2012 HE14
2013	1,328,201	268	56.5%	99.7%	7/17/2013 HE14
2014	1,327,223	256	59.3%	98.7%	8/27/2014 HE15
2015	1,309,682	260	57.6%	98.1%	7/28/2015 HE14
2016	1,327,513	262	57.7%	97.8%	7/26/2016 HE14
Average	1,345,149	272	56.4%	98.2%	





## Balancing Authority

Seven (7) of the AR members are located on the LG&E/KU transmission system. The 8<sup>th</sup> AR member, Falmouth, is located on the East Kentucky Power Cooperative (EKPC) transmission system in PJM. There is a transmission arrangement in place for the Falmouth load (approximately 4 MW) to be pseudo-tied from EKPC into the LG&E/KU BA. KyMEA is currently seeking FERC approval to continue this arrangement when KyMEA replaces LG&E/KU as Falmouth's supplier. In the event KyMEA is not successful in continuing the current transmission arrangement, the Falmouth load may be required to be served directly by the PJM market.

## Depancaking Agreement

Proposers should note that KyMEA's members are parties to an agreement with LG&E/KU which shields them from pancaking certain transmission and ancillary service charges in transactions between the MISO and LG&E/KU regions (the "Depancaking Agreement"). In general, if KyMEA purchases electricity from a resource in MISO, the Depancaking Agreement provides for KU to reimburse KYMEA for certain (otherwise pancaked) MISO charges for transmission and ancillary services to reach the LG&E/KU interface where both MISO and LG&E/KU provide and charge for corresponding services. The Depancaking Agreement has been interpreted to exclude reimbursement for such MISO charges as marginal congestion costs and marginal losses. The Depancaking Agreement is LG&E/KU Rate Schedule FERC No. 402.

For "Drive-In to MISO" transactions, in which KyMEA sells electricity generated with a source in the LG&E/KU Balancing Area and a sink in MISO, LG&E/KU will waive its transmission and ancillary services billings that KyMEA otherwise would incur to transmit the electricity to MISO. For such transactions, KyMEA is responsible for all applicable MISO charges incurred to deliver the electricity to any point within MISO beyond the MISO-LG&E/KU interface.

### **Depancaking Agreement Mechanics**

The ESP needs to be familiar with the depancaking arrangements and the associated economic impact, but the ESP will not be directly involved in the transmission transactions. KyMEA will receive monthly invoices from MISO including point-to-point services and ancillaries. KyMEA will pay the MISO invoice and forward a copy to LG&E/KU. LG&E/KU will calculate the monthly NITS charges and use the MISO invoice to determine the amount of the monthly credit or payment. After the LG&E/KU depancaking credit or payment, KyMEA effectively pays LG&E/KU NITS charges plus MISO charges not covered by the Depancaking Agreement. The following MISO charges are not covered by the depancaking arrangements – Schedule 10, Schedule 11, and Schedule 33.

## KyMEA Resources

KyMEA currently has five (5) purchase power agreements from coal, natural gas, hydro, and diesel generation resources. Each PPA is described below.

### Coal

KyMEA's coal PPAs are the following:

#### Illinois Power Marketing Company (IPMC)

- Product: 100MW of firm capacity and energy from the Joppa Power Station, a six-unit coal-fired generating facility with a net generating capacity of 1,002MW.
- Term: June 1, 2019 through May 31, 2022.
- Delivery Point: Joppa interconnection with LG&E/KU, with optionality to deliver into MISO. KyMEA to utilize LG&E/KU network integration transmission service to deliver energy from the Joppa interconnection to KyMEA's loads.
- Scheduling Provision: Day-ahead and real-time scheduling flexibility.

#### Big Rivers Electric Corporation (BREC)

- Product: 100MW of firm capacity and energy delivered at the D.B. Wilson Station, a coal-fired generating facility with a net generating capacity of 417MW.
- Term: May 1, 2019 through May 31, 2029.
- Delivery Point: BREC.WILSON commercial pricing node as established by MISO. KyMEA to utilize MISO firm point to point transmission service in conjunction with LG&E/KU network integration transmission service to deliver energy from the delivery point to KyMEA's loads.
- Scheduling Provision: Day-ahead and real-time scheduling flexibility.

### Natural Gas

#### Paducah Power System (PPS)

- Product: 90MW of peaking capacity and energy from the PPS peaking facility, a gas-fired generating facility with a net generating capacity of 104MW in the summer and 120MW in the winter.
- Term: May 1, 2019 through May 31, 2029.
- Delivery Point: Paducah's primary 161kV interconnection with LG&E/KU. KyMEA to utilize LG&E/KU network integration transmission service to deliver energy from the delivery point to KyMEA's loads.
- Scheduling Provision: Day-ahead and real-time scheduling flexibility.

## Hydro

### Southeastern Power Administration (SEPA)

The eight (8) KyMEA AR members are preference customers of SEPA, whereas they are entitled to firm capacity and energy generated at SEPA's Cumberland River System of Projects and delivered to the TVA interface with LG&E/KU. As repairs are still being made at the Center Hill facility, SEPA is currently operating at a reduced level via the revised interim operating plan. The current combined capacity of the AR members' entitlements is 28.042MW; once repairs are complete at Center Hill and SEPA returns to normal operations, the combined capacity will increase to 32.197MW. Repairs are anticipated to be complete by July 1, 2019. The SEPA fiscal year begins July 1 of each year and ends on June 30 the following year.

Energy associated with SEPA is scheduled on a weekly basis with schedules being submitted to SEPA the week prior to delivery. Energy schedules can range from 0MW up to the current combined capacity as long as the following conditions are met:

- Under the revised interim operating plan, the minimum number of hours that can be scheduled in a month is 60 hours and the maximum number of hours that can be scheduled in a month is 190 hours. The yearly total of hours that must be scheduled is 1,779.63 hours.
- Under normal operations, the minimum number of hours that can be scheduled in a month is 60 hours and the maximum number of hours that can be scheduled in a month is 240 hours. The yearly total of hours that must be scheduled is 1,500 hours with the optionality to schedule an additional 300 hours.

## Diesel

### City of Paris, Kentucky

- Product: 11.267MW of peaking capacity and energy from the peaking facility, a diesel-fired generating facility with a net generating capacity of 11.267MW from seven (7) engines.
- Term: May 1, 2019 through May 31, 2029.
- Delivery Point: Paris's primary interconnection with LG&E/KU. KyMEA to utilize LG&E/KU network integration transmission service to deliver energy from the delivery point to KyMEA's loads.
- Scheduling Provisions:
  - Maximum Operating Hours: 475 hours per year
  - Minimum Operating Hours: 0 hours per year

- Maximum time between dispatch notice to Paris and bringing the dispatched unit(s) on-line: 1 hour during normal work hours (8am to 4pm Eastern), 4 hours outside normal work hours.

## Energy Imbalance Market

LG&E/KU Schedule 4 Energy Imbalance Service: Energy Imbalance Service is provided when a difference occurs between the scheduled and the actual delivery of energy to a load located within a Balancing Authority Area over a single hour. The Transmission Owner must offer this service when the transmission service is used to serve load within its Balancing Authority Area. The Transmission Customer must either purchase this service from the Transmission Owner or make alternative comparable arrangements, which may include use of non-generation resources capable of providing this service, to satisfy its Energy Imbalance Service obligation. To the extent the Balancing Authority Area operator performs this service for the Transmission Owner, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to the Transmission Owner by that Balancing Authority Area operator. The Transmission Owner may charge a Transmission Customer a penalty for either hourly energy imbalances under this Schedule or a penalty for hourly generator imbalances under Schedule 9 for imbalances occurring during the same hour, but not both unless the imbalances aggravate rather than offset each other.

The Transmission Owner shall establish charges for energy imbalance based on the deviation bands as follows:

- Tier 1 deviations within +/- 1.5 percent (with a minimum of 2 MW) of the scheduled transaction to be applied hourly to any energy imbalance that occurs as a result of the Transmission Customer's scheduled transaction(s) will be netted on a monthly basis and settled financially, at the end of the month, at 100 percent of incremental or decremental cost;
- Tier 2 applies to the portion of the deviation greater than +/- 1.5 percent up to 7.5 percent (or greater than 2 MW up to 10 MW) of the scheduled transaction to be applied hourly to any energy imbalance that occurs as a result of the Transmission Customer's scheduled transaction(s) will be settled financially, at the end of each month, at 110 percent of incremental cost or 90 percent of decremental cost, and
- Tier 3 applies to the portion of the deviation greater than +/- 7.5 percent (or 10 MW) of the scheduled transaction to be applied hourly to any energy imbalance that occurs as a result of the Transmission Customer's scheduled transaction(s) will be settled financially, at the end of each month, at 125 percent of incremental cost or 75 percent of decremental cost.

For purposes of this Schedule, incremental cost and decremental cost represent the Transmission Owner's actual average hourly cost of the last 10 MW (i.e., the highest cost 10 MW) dispatched for any purpose, e.g., to supply the Transmission Owner's Native Load Customers, correct imbalances, or make off-system sales, and will include the replacement cost of fuel, unit heat rates, incremental operation and maintenance costs, purchased and interchange power costs and taxes, and startup costs (including any commitment and redispatch costs), as applicable.

For Tier 1 deviations, the Transmission Owner will keep an account of all deviations by the customers in that month, and then calculate each month the net energy imbalance in MWh, positive or negative, for each transmission customer, based on the customer's Tier 1 deviations for that month. The charge for net Tier 1 deviations shall be based on 100% of the load weighted hourly average incremental/decremental costs. The transmission customer's charge will be determined by multiplying the net MWh quantity of the net Tier 1 deviations by the load weighted hourly average incremental/decremental rate. For Tier 2 and Tier 3 deviations, a charge will be made in accordance with this Schedule for each hour in which an imbalance occurred. These charges will be based on a percentage of the actual incremental or decremental cost for that hour, as specified above.

In order to determine the last 10 MW dispatched for any purpose, the Transmission Owner will rely upon information supplied through the After the Fact Billing ("AFB") Process, a stacking program which determines the cost allocations from generating unit sources to load sinks (based on dispatch) and will identify the top 10 highest cost MWs of energy dispatched for any purpose.

The AFB process will be used to identify the following components of the incremental cost:

- Fuel Cost - This value is obtained from Fuel Supply and represents the replacement costs of fuel. For dispatching the system, the fuel cost represents the replacement cost of fuel as reported by Fuel Supply. For the AFB process, the fuel cost represents the actual inventory cost based on the reported purchases in the coal purchase report from the previous month.<sup>1</sup> The SO<sub>2</sub> emissions adder included in the AFB process is a function of the SO<sub>2</sub> content of the coal, the removal efficiency of the unit, and the market price for an SO<sub>2</sub> allowance.<sup>2</sup> The NO<sub>x</sub> emissions adder is a function of the NO<sub>x</sub> emission rate of the unit and the market price for a NO<sub>x</sub>

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<sup>1</sup> For example, coal purchases for March as reported in April will be used for the May fuel cost in AFB.

<sup>2</sup> The SO<sub>2</sub> adder is calculated as follows:  $EA = (\text{lbs SO}_2/\text{Mbtu}) \times (1 - \text{Removal Efficiency}) \times (\text{Allowance Price } \$/\text{ton}) / 2000$ . The removal efficiencies are updated annually based on historical performance. The SO<sub>2</sub> content is obtained from coal supply and is based upon the coal purchases from the previous month (May data is based upon March coal purchases). The allowance price is obtained from Environmental Affairs and is based on the allowance price from Cantor-Fitzgerald.

allowance.<sup>3</sup> These components are incremental costs of providing fuel for the imbalance service, as they specify the cost of replacement fuel in that LG&E/KU must purchase such allowances to account for the use of this fuel for imbalance purposes.

- Variable O&M - Variable O&M represents the incremental maintenance and operation costs of providing the imbalance service. Once the stacking portion of the AFB process is completed, the O&M is added based on the units in the stack. Variable O&M for the LG&E/KU coal units it is based upon the cost of the annual maintenance and the overhaul maintenance, divided by the MWH generated between the outages. The scrubber consumable cost is based upon the variable operating expenses (limestone, carbide lime, barge unloading, etc.) associated with scrubbing the unit.
- Unit Commitment Cost - For the Base Load generating units, the cost of startup and minimum load is not included in the AFB process. Those costs are assumed to be collected from Native Load Customers since the units are on-line to meet the requirements of Native Load. For the Combustion Turbines generating units, the heat rate curves used in AFB are adjusted to account for the costs associated with the full dispatch of the unit. Therefore, commitment costs are approximated for these units in AFB.
- Redispatch Costs – The AFB system is run after actual generation dispatch occurs. To the extent that generating units were re-dispatched, the costs associated with the units actually dispatched are embedded in the AFB process.

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<sup>3</sup> The NOx adder is calculated as follows:  $EA = (\text{NOx Emission Rate}) \times (\text{Allowance Price } \$/\text{ton}) / 2000$ . The emission rates updated annually based on historical performance. The allowance price is obtained from Environmental Affairs and is based on the allowance price from Cantor-Fitzgerald.

## CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

This Confidentiality and Non-disclosure Agreement (this “Agreement”), dated \_\_\_\_\_, 2018, is entered into between Kentucky Municipal Energy Agency with offices at 1700 Eastpoint Parkway, Suite 220, Louisville, Kentucky 40223 (“Receiving Party”) and \_\_\_\_\_ with offices at \_\_\_\_\_ (“Disclosing Party”), collectively referred to as the (“Parties”).

### Background Statement

Receiving Party has had or desires to have confidential discussions with Disclosing Party in connection with the evaluation of proposed transactions between Disclosing Party and Receiving Party proposed by Disclosing Party in response to the Request for Proposals for Energy Management Partner from Receiving Party dated July 25, 2018 (“Proposed Transactions”). The Parties acknowledge that Receiving Party will be receiving, reviewing, and analyzing information with respect to Proposed Transactions that is confidential, proprietary, or otherwise commercially sensitive and not publicly available. Receiving Party and Disclosing Party have entered into this Agreement to establish terms and conditions applicable to the exchange of Confidential Information in connection with the Proposed Transactions.

### Agreement

1. Non-disclosure of Confidential Information. Confidential Information will be kept strictly confidential by Receiving Party. Confidential Information may, however, be disclosed by Receiving Party to its directors, officers, members, employees, attorneys, consultants and financial advisors (collectively, “Representatives”), but only if such Representatives (i) need to know the Confidential Information in connection with Receiving Party’s evaluation of Proposed Transactions, and (ii) agree to be bound by the terms of this Agreement. Receiving Party shall not disclose the Confidential Information to any person other than as expressly permitted by this Agreement, and shall safeguard the Confidential Information from unauthorized disclosure. Receiving Party shall use the Confidential Information solely for the purpose of evaluating Proposed Transactions and for no other purpose. Receiving Party shall be liable for any breach of this Agreement by any of its Representatives.

2. Notice Preceding Required Disclosure. If Receiving Party or its Representatives are requested or required (by oral question, interrogatories, requests for information or documents, subpoena, open meeting requirements, civil investigative demand, regulatory proceedings, stock exchange rules, or other applicable rules or regulations or similar process) to

disclose any Confidential Information, Receiving Party shall promptly notify Disclosing Party of such request or requirement so that Disclosing Party may seek an appropriate protective order or waive compliance with this Agreement. If, in the absence of a protective order or the receipt of an express waiver under this Agreement, Receiving Party or its Representatives are, in the opinion of legal counsel, required to disclose the Confidential Information, Receiving Party or its Representatives may disclose only such of the Confidential Information to the party requiring disclosure as, in the opinion of legal counsel, is required by applicable law, rule or regulation and, in connection with such disclosure, Receiving Party and its Representatives shall use commercially reasonable efforts to obtain confidential treatment for such portion of the Confidential Information as is disclosed. Disclosure in accordance with this paragraph that is legally required to be made is not a violation of this Agreement.

3. Definition of "Confidential Information". As used in this Agreement, "Confidential Information" means any and all information that is furnished, before or after the date hereof, to Receiving Party or its Representatives by Disclosing Party or otherwise that relates to or concerns Proposed Transactions or the Disclosing Party and its affiliates, and is designated as confidential by the Disclosing Party. Any such information furnished to Receiving Party or its Representatives by a director, officer, employee, member, partner, lender, consultant, agent, or other representative of Disclosing Party will be deemed furnished by Disclosing Party for the purpose of this Agreement. Notwithstanding the foregoing, the following does not constitute Confidential Information for purposes of this Agreement: (i) information that is or becomes publicly available other than as a result of a disclosure by Receiving Party in breach of this Agreement; (ii) information that was already known to Receiving Party on a non-confidential basis prior to being furnished to Receiving Party by Disclosing Party; (iii) information that becomes available to Receiving Party on a non-confidential basis from a source other than Disclosing Party or a representative of Disclosing Party if such source, to Receiving Party's knowledge, is neither subject to any prohibition against transmitting the information to Receiving Party nor bound by a confidentiality agreement with Disclosing Party; and (iv) information that is independently developed by Receiving Party without use of or reference to Confidential Information.

4. Return of Information. Confidential Information will remain the property of Disclosing Party. Upon request of the Disclosing Party, Confidential Information, and any copies thereof, will be returned to Disclosing Party or destroyed within fifteen days of receipt of the request. Unless otherwise agreed to by the Parties, the Receiving Party or its Representatives may retain one record copy for their files. Any Confidential Information so retained shall remain subject to this Agreement without regard to Section 7 hereof.

5. No Waiver. No failure or delay in exercising any right, power, or privilege hereunder will operate as a waiver thereof, nor will any single or partial exercise thereof preclude any other or further exercise thereof or the exercise of any other right, power, or privilege hereunder.



6. Remedies. Because money damages may not be a sufficient remedy for a breach of this Agreement by Receiving Party or its Representatives, Disclosing Party shall be entitled to seek specific performance and injunctive relief as remedies for any such breach or threatened breach. Such remedies will not be deemed to be the exclusive remedies for a breach of this Agreement by Receiving Party or any of its Representatives but will be in addition to all other remedies available to Disclosing Party at law or in equity.

7. Term. Except as otherwise provided in Section 4, this Agreement shall terminate on the date that is two (2) years from the date first written above.

8. No Representations or Warranties. Neither Disclosing Party nor any of its Representatives is making any representation or warranty as to the accuracy, validity or completeness of Confidential Information and Disclosing Party shall not be liable to Receiving Party or any other party as a result of the use of Confidential Information.

9. No Assignment; Successors. Receiving Party may not assign all or any part of this Agreement without Disclosing Party's prior written consent. This Agreement inures to the benefit of the Parties hereto and their successors and permitted assigns and is binding on each other and each other's successors and permitted assigns.

10. Governing Law. THIS AGREEMENT WILL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE COMMONWEALTH OF KENTUCKY, WITHOUT REGARD TO THE CONFLICT OF LAWS PRINCIPLES THEREOF THAT WOULD OTHERWISE DIRECT THE APPLICATION OF THE LAWS OF A DIFFERENT JURISDICTION. EACH OF THE PARTIES HERETO AGREES THAT (A) ANY LEGAL ACTION BROUGHT HEREUNDER SHALL BE BROUGHT IN THE FEDERAL OR STATE COURTS LOCATED WITHIN KENTUCKY AND (B) ANY RIGHT OF THE UNDERSIGNED TO TRIAL BY JURY WITH RESPECT TO ANY CLAIM OR ACTION ARISING OUT OF THIS AGREEMENT IS WAIVED.

11. Entire Agreement; Headings. This Agreement constitutes the entire agreement among the Parties with respect to the subject matter hereof. The headings of the Sections of this Agreement are inserted for convenience only and do not constitute a part hereof or affect in any way the meaning or interpretation of this Agreement. This Agreement may be executed via facsimile transmission and may be executed in separate counterparts, each of which shall be deemed to be an original and all of which together shall constitute a single instrument.

12. Savings Clause. If any provision of this Agreement or the application thereof to any person, place, or circumstance, shall be held by a court of competent jurisdiction to be invalid, unenforceable, or void, the remainder of the Agreement and such provisions as applied to other persons, places, and circumstances shall remain in full force and effect.

To evidence their acceptance of this Agreement, the Parties' respective authorized representatives have signed below effective as of the date first specified above.

**DISCLOSING PARTY**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**KENTUCKY MUNICIPAL ENERGY AGENCY**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_