August 16, 2016

A Board meeting of the Electric and Water Plant Board of the City of Frankfort, Kentucky, was held at Farmers Bank and Capital Trust, located at 125 W. Main Street, Frankfort, Kentucky, on Tuesday, August 16, 2016 at 5:00 p.m.

ATTENDANCE:

Ralph Ludwig, Board Chair
Rick Pogrotsky, Vice Chair
Dr. Scott Green, Secretary/Treasurer
Anna Marie Pavlik Rosen, Board Member
Walt Baldwin, Board Member
James Liebman, Board Attorney
Herbbie Bannister, General Manager
David Billings, Chief Water Engineer
Brian Bourne, Asst. Water Dist. Superintendent
Nichell Brown, HR Specialist
Harvey Couch, Marketing and Video Coordinator
David Denton, Finance Director
Sharmista Dutta, Water Engineer
Vent Foster, Chief Electrical Engineer/Asst. GM Operations
Monique Gilliam, Customer Service Director
Adam Hellard, Broadband/Security Manager
Ryan Henry, IT Technician
Scott Hudson, Electric Supt.
Casey Jones, Asst. IT Director
Kim Phillips, Safety Director
Leigh Ann Phillips, Purchasing
Hance Price, Staff Attorney/ Asst. GM Administration
Kathy Poe, Executive Assistant
April Rhoades, Customer Service Supervisor
Chris Riddle, WTP Superintendent
Julie Roney, Asst. WTP Superintendent
Dianne Schneider, HR Director
Alan Smith, Water Dist. Superintendent
Glenn Waldrop, Public Information Officer
Zach Hubbard, Cable 10 Videographer
David Columbia, Cable 10 Videographer
Seth Littrell, State Journal Reporter
John Painter, nFront Consulting, LLC
Fred Haddad, Jr., nFront Consulting, LLC
Charlie Musson, Attorney, Rubin & Hays
Brown Thornton, NewGen Strategies & Solutions, LLC
Charlie Jones, McNamara & Jones
Aaron Nickerson, GRW Engineers

AGENDA

The Agenda for the Board Meeting was received and entered into the Minute Book as follows:

AUGUST 16, 2016 BOARD MEETING AGENDA

1. **Action Item: Conduct a Public Hearing for the Establishment of fees for: (1) Proposed change to Electric Net Metering Tariff, and (2) Proposed change to Water Tariff for Mobile Home Parks.**

2. **Action Item: Consider Approval of the City's Request for an Easement at the Administration Building Site.**

3. **Action Item: Consider Approval of Change Order No. 5 for the Administration Building for a deduction of $12,967.90.**

4. **Action Item: Consider Approving Minutes for the July 19, 2016 Board Meeting.**

5. **Action Item: Consider Approving Minutes for the August 4, 2016 Special Board Meeting.**

6. **Action Item: Accept Electric, Water and Cable Financial & Statistical Data for June 2016 and July 2016.**

7. **Informational Item: Public Comment Period.**

8. **Informational Item: Departmental Reports:**
    - **Website Customer Comments**
    - **Cable Dept.**
    - **Customer Service**
    - **Electric Dept.**
        - **SEPA**
    - **KyMEA**
    - **Safety**
    - **Water Distribution**
    - **Water Treatment Plant**
    - **Administration Building**

9. **Action Item: Consider Approval of Resolution and All-Requirements Power Contract between Frankfort Plant Board and Kentucky Municipal Energy Agency (KyMEA).**

10. **Action Item: Approve Amendment to the Guidelines Governing Employment, Electric & Water Plant Board of the City of Frankfort, Kentucky – Medical Leave and Family Leave, Effective September 1, 2016.**

11. **Action Item: Consider Amendments to the Job Classification and Compensation Plan to Re-classify Two Positions in Cable/Telecommunications: the Senior Engineering Technician and the Business Products Specialist Position.**

12. **Action Item: Consider Approving Stingray Music Renewal.**

13. **Action Item: Consider Approving RFD-TV agreement.**

14. **Action Item: Consider approval of Addendum #4 between Strand Associates, Inc. and FEWPB to perform design and construction services related to Reservoir Replacement Project in the amount of $265,126.51 and amend the engineering budget to $216,900.**

15. **Action Item: Consider Approval of the Purchase Order with Office Resources, INC, for a Total Not to Exceed $540,000.**

16. **Old & New Business:**

17. **Informational Item: General Manager's Comments.**

18. **Request Permission to have Chair call for a Closed Session** pursuant to KRS 61.810(1)(c) for the discussion of proposed or pending litigation against or on behalf

of FPB; KRS 61.810(1)(f) for discussions which might lead to the appointment, discipline, or dismissal of an individual employee; and KRS 61.810(1)(b) for the discussion of the future acquisition or sale of real property.

19. **Closed Door Session:**

BOARD ACTION

Mr. Ludwig called the meeting to order. Ms. Poe called the roll. She noted five (5) Board members in attendance.

1. **Action Item: Conduct a Public Hearing for the Establishment of fees for: (1) Proposed change to Electric Net Metering Tariff, and (2) Proposed change to Water Tariff for Mobile Home Parks.**

Mr. Pogrotsky called the public hearing to order.

This Hearing will come to order. My name is Rick Pogrotsky; I have been requested by the Board to conduct this Hearing. With me today are Board Members and Staff of the Frankfort Electric and Water Plant Board. We are here to receive comments regarding the following: (1) Proposed change to Electric Net Metering Tariff, and (2) Proposed change to Water Tariff for Mobile Home Parks. This Public Hearing was advertised in accordance with the Regulations for Public Notification.

To conduct this hearing in an organized fashion, we ask that you register with the Secretary if you wish to speak.

This Hearing will be conducted informally and voluntarily by the Frankfort Electric & Water Plant Board in order to accept comments on the above items. Both oral and written comments will be accepted. Any and all persons present who wish to make a statement will be afforded an opportunity to do so. If you have a written statement to accompany your oral presentation, a copy of the written statement should be provided to the Board prior to your presentation. Oral presentations should be limited to no more than 3 minutes. If necessary, I will interrupt and request the presentation to be completed due to this time limit. I may ask questions of any person presenting oral comments where it is necessary to clarify the nature or substance of the comments.

The Board reserves the right to answer questions at a later date. It is the job of the Board to fairly consider various points of view and information. We want public input and involvement and I hope you do not find our standard procedures restrictive.

Additional oral comments and written comments will be accepted and considered if they are submitted no later than the end of normal business hours on Monday, September 19, 2016. To submit a comment, please contact FPB at 352-4372, or on our website www.fpb.cc.

Before we open the floor for comments, Mr. Foster and Mr. Billings will provide a summary of the details.

Mr. Foster reiterated that the changes for the net metering tariff were minor and would allow for leased net metering systems.

Mr. Billings reiterated that the changes in tariff for mobile home park water meters would allow for individual meters as well as master meters. He noted that this was a minor change and would be beneficial to FPB and the community.

Mr. Pogrotsky opened the floor for comments.

Mr. Andy McDonald spoke and stated that he was in favor of the change.

With no further comments, Mr. Pogrotsky adjourned the public hearing.

2. **Action Item: Consider Approval of the City's Request for an Easement at the Administration Building Site.**

The City of Frankfort is preparing to donate approximately 34 acres to the Woods and Waters Land Trust in the area east of FPB's Carpenter Farm Property. The local land trust will hold the property for the protection of endangered species and may be used for walking trails and similar uses. An easement is required in order to access the property and is shown on the plat included in the detail section. Staff recommends approval of the easement.

Mr. Price explained the necessity for the easement across FPB's property located on Flynn Avenue and advised that Staff recommended approval of the easement.

Mr. Pogrotsky moved to approve the City's request for an easement at the Administration building site. Mr. Ludwig seconded. Mr. Ludwig called for the vote and the motion passed unanimously.

3. **Action Item: Consider Approval of Change Order No. 5 for the Administration Building for a deduction of $12,967.90.**

In March of 2015, the Board awarded the construction contract for the new administration building to Marrillia Design and Construction for $15,730,293.

As construction has progressed, additional items to be added, modified, and removed have been determined. A list of the items is included in the board package.

A summary of the change orders is listed below:

Summary:

Original Construction Contract	$15,730,293.00
Change Order #1 (addition):	$ 23,306.00
Change Order #2 (deduction):	$ (94,775.42)
Change Order #3 (deduction):	$ (50,753.00)
Change Order #4 (addition):	$ 9,397.00
Change Order #5 (deduction):	$ (12,967.90)
New Contract Amount:	**$15,604,499.68**

Staff recommends the Board approve Change Order #5 with Marrillia Design and Construction.

Ms. Dutta briefly summarized the change order. Mr. Aaron Nickerson of GRW Engineers explained each line item in detail on Change Order No. 5. He discussed the cost of this change order, the total cost of all change orders combined and the new contract amount for the project.

Mr. Ludwig moved to approve Change Order No. 5 for the administration building for a deduction of $12,967.90. Ms. Rosen seconded. Mr. Ludwig called for the vote and the motion passed unanimously.

Administration Building: Ms. Dutta discussed activities at the administration building site. She noted significant progress on the first floor, the status of glass installation, upcoming work to be completed, and discussed photos provided to the Board.

In response to Mr. Baldwin, Ms. Dutta and Mr. Nickerson stated that they would address standing water issues at the site.

4. **Action Item: Consider Approving Minutes for the July 19, 2016 Board Meeting.**

Mr. Pogrotsky moved to approve the minutes for the July 19, 2016 board meeting and the minutes for the August 4, 2016 special board meeting. Mr. Ludwig seconded. Mr. Ludwig called for the vote and the motion passed unanimously.

5. **Action Item: Consider Approving Minutes for the August 4, 2016 Special Board Meeting.**

Approved in Item 4.

6. **Action Item: Accept Electric, Water and Cable Financial & Statistical Data for June 2016 and July 2016.**

Mr. Denton discussed the statement of net position for the period ending June 30, 2016 and the period ending July 31, 2016. He noted that the auditors would be back at the downtown office beginning August 22, 2016 to complete audit work and that Staff expected to have the completed audit to the Board for approval at the October meeting. He advised that Staff expected that FPB would receive a clean and unqualified audit.

Mr. Ludwig moved to accept the Electric, Water and Cable Financial & Statistical Data for June 2016 and July 2016. Mr. Pogrotsky seconded. Mr. Ludwig called for the vote and the motion passed unanimously.

7. **Informational Item: Public Comment Period**

Mr. Ludwig opened the floor for public comment.

Chris Schimmoeller read a letter from Tom Fitzgerald of the Kentucky Resources Council regarding his recommendation to postpone a vote on the KyMEA Agreement. Ms. Schimmoeller stated that she was not an FPB customer but noted her concerns regarding Big Rivers and suggested that the Board consider postponing the vote.

Andy McDonald stated he was an FPB internet and telephone customer but not an FPB electric customer. He advised that he was speaking on behalf of himself and Envision Franklin County. He noted objections to the contract with Big Rivers and aspects of the KyMEA contract.

Dick Watkins stated his objections with the choices of Big Rivers, Dynegy, Paducah and HenderSun Power to purchase power.

Caroline Taylor Webb stated that she and her husband had been FPB customers for 11 years. She stated that the South Frankfort Community would like time to talk about options and that the community wanted some voice in the decision. She noted her concern with Big Rivers, her opposition to the 10-year term of the Big Rivers agreement and stated that she did not want higher rates.

Nell Cox stated that she was a total FPB customer and that the community feels that they had not been afforded enough input on the power contracts. She requested information regarding the specifics of the cost if a decision was delayed.

Jared Ellis stated that he was an FPB customer and expressed his concern with the 10-year term of the Big Rivers contract as well as the lack of renewables.

Joshua Bills stated that he was not a customer and that he was a Berea Municipal Utilities customer. He noted that he was supportive of the formation of the KyMEA but was surprised at the all in and 10-year contracts. He discussed renewables and reiterated his concern with a 10-year contract and coal power purchases.

Connie Lemley stated that she was a telephone and internet customer. She noted her congratulations with FPB terminating its contract with Kentucky Utilities and to the formation of KyMEA. She stated that signing the contract they were considering would be a mistake.

Skip Hunt stated that he was an FPB customer and that he felt the length of the contract for old technology may be too long. He stated he felt like FPB should step back and reconsider renewables and acquire additional public input.

Nat Colton stated that he had recently moved back to Frankfort and was an FPB customer. He stated that it was very important to ensure the customers were educated on power generation and all options available for Frankfort.

Richard Rosen stated that he was an FPB customer. He stated that all the sentiments and concerns voiced were legitimate and that he was optimistic that KyMEA consultants could address all concerns and that the contract could go forward.

Barbara Rosner stated that she was an FPB electric customer. She noted that she shared concerns with the length of the Big Rivers contract and that renewable options should be explored. She stated that the decision should be delayed if at all possible for additional review and public input.

At this point, Mr. Pogrotsky expressed his gratitude for the public attendance and comments.

8. **Informational Item: Departmental Reports:**

Website Customer Comments: Mr. Couch stated that there were two (2) customer comments which were provided to the Board.

Cable: Mr. Hellard explained graphs and numbers provided to the Board. He advised that customer numbers were good overall with a few trouble calls in telephone.

Customer Service: Ms. Gilliam reviewed and discussed graphs presented to the Board. She discussed new reports and the new customer comment cards and the respective comments.

In response to Ms. Rosen, Ms. Gilliam stated that the transition to 2-cycle billing was on-track. She advised that there were some issues to work out but she believed that the issues could be resolved timely.

Electric Dept.: Mr. Hudson explained graphs for the electric department on reliability. He noted forty-four (44) electric outages.

SEPA: Mr. Bannister explained SEPA graphs. He noted a loss of $2,435 for the month of June and a profit of $10,164,602 since 1997.

Safety: Ms. Phillips noted no (0) OSHA recordable and two (2) vehicle minor accidents. She advised that there was only minor vehicle damage and no injuries.

Water Distribution: Mr. Smith noted five (5) outages and four (4) main breaks. He advised that new service numbers were unusually high due to the addition of individual meters at the trailer park.

Water Treatment Plant: Mr. Riddle stated that FPB produced more than 261 million gallons of potable water for the month of July for an average daily production of 8.4 million gallons per day. He advised that river conditions remain favorable.

Headend Building: Mr. Higginbotham explained progress with switchover and move of infrastructure to the new headend building and upcoming work to be completed.

9. **<u>Action Item</u>: Consider Approval of Resolution and All-Requirements Power Contract between Frankfort Plant Board and Kentucky Municipal Energy Agency (KyMEA).**

As you may recall, on September 23, 2013, KU filed a rate case with the Federal Energy Regulatory Commission (FERC) to significantly modify the terms and conditions of FPB's and the other municipals' current power supply contracts. As a result, the Frankfort Plant Board (FPB) as well as other Kentucky municipals gave notice to terminate their contracts with Kentucky Utilities (KU) in April 2014. The termination of the existing contract requires FPB and the other municipals to acquire new electric service and begin taking that service as follows: June 1, 2015 for the Benham Power Board; May 1, 2017 for the City of Paris; and May 1, 2019 for the Frankfort Plant Board and the Cities of Barbourville, Bardwell, Berea, Corbin, Falmouth, Madisonville, and Providence, Kentucky.

On June 16, 2015, the Board approved the Interlocal Cooperation Resolution and Agreement which authorized and established the Kentucky Municipal Energy Agency (KyMEA). Also at that meeting the Board appointed and approved its representative and an alternate to the KyMEA Board of Directors. This action was taken by FPB and eight other municipals in order to realize the benefits from economies of scale in planning, purchasing, selling and operating power supply resources. On November 19, 2015 the Board also conducted a televised, public forum to discuss and inform our community about KyMEA and the progress being made on a new power supply.

Since that time the KyMEA Board and its consultant team have continuously worked to acquire a new energy supply. A number of major elements must be addressed before any new service can begin. Some (but not all) of those elements are identifying and procuring power supply resources, securing transmission service and establishing power delivery contracts between the municipals and KyMEA.

By way of the Kentucky model procurement code, KyMEA has identified key portions of the power supply resources that will be used during the first few years of service and the power purchase agreements (PPAs) are in the final stages of negotiation for those resources. While portions of the power supply portfolio for KyMEA have been established, there are still additional resources and contracts that will need to be worked out in the coming months and years. This resource planning and procurement will be a continuous process for KyMEA as contracts of varying terms and resource types, evolve and expire.

Applications, studies, system modeling and identification of possible upgrades that may be needed are currently underway to establish transmission service to each of the KyMEA members.

In an effort to establish power delivery contracts between the municipals and KyMEA, the KyMEA Board has approved and is proposing the provided all-requirements contract for FPB's consideration. Staff and our consulting team presented the details of the proposed all-requirements contract between FPB and KyMEA at the regular July 19, 2016 Plant Board meeting. Staff and the consultant group firmly believe it is in our community's best interest to approve the resolution and contract to become an all-requirements partner in KyMEA.

Mr. Foster reiterated the history of the item and introduced the consultants. John Painter and Fred Haddad, nFront Consulting, Charlie Musson, Rubin & Hays, and Brown Thornton, NewGen Strategies.

Mr. Painter reviewed the presentation which is attached to and incorporated as part of the minutes of this meeting.

Mr. Painter stated that the purpose of the presentation was to answer every question presented to the consultants by board members and the community. Mr. Painter

explained the advantages of leaving Kentucky Utilities and joining KyMEA. He stated that this group of consultants have been involved with FPB and the other municipal KyMEA partners from the beginning and prior to the formation of KyMEA.

Mr. Painter advised that accepting the all requirements contract with KyMEA would place FPB in the best possible position to implement renewable energy in the future and that FPB's reliance on coal would be reduced compared to Kentucky Utilities. He further advised that having a diverse portfolio with a combination of coal, natural gas and renewables would allow FPB to maintain competitive rates.

Mr. Painter reiterated that FPB would have the ability under the all requirements contracts to utilize member owned resources for the benefit of FPB, its customers and the community. He further stated that the contract would facilitate the ownership of clean renewable resources and better position FPB to implement efficiency programs with the group through KyMEA.

Mr. Painter advised that KyMEA exists to allow the members to work together to benefit from ideas that each entity cannot achieve in the market individually. He discussed specifics of saving on planning and administrative costs as well as mutual benefits with cost savings by pooling the loads and resources of the group.

Mr. Painter discussed developing renewables and explained the consultants experience in developing renewable energy and building renewable energy into FPB's portfolio. He advised that the all requirements contract will provide FPB the flexibility to incorporate renewable resources.

Mr. Painter discussed the make-up of capacity and energy requirements. He explained reliable peak capacity requirements mandated by the Public Service Commission (PSC). He further explained capacity versus energy and the potential to build in renewable sources in the near future. He discussed responses to RFP's, the development and composition of a diverse portfolio, flexibility provided in the power contracts, rights to reduce purchase of power, KyMEA's ability to adjust power purchase amounts to allow for the addition of renewables, and contract benefits to KyMEA members regarding the cost for the power suppliers to meet current clean power regulations.

Mr. Haddad advised that all respondents to the RFP's were completed vetted and were in compliance or would be in compliance with all regulatory requirements with no additional pricing exposure to KyMEA or its all requirements members. He advised that the power supply contracts with Big Rivers, Dynegy and Paducah protect KyMEA members from any significant price increases due to EPA and clean power regulation changes.

Mr. Painter discussed the financial position, assessment and audit of Big Rivers as well as the assessment and audit conclusions. Mr. Painter reiterated the necessity of some coal power in the portfolio to protect from volatility in the natural gas market. He advised that pursuant to the RFP results the choice was to include Big Rivers or include no coal at all into the portfolio. He further reiterated that Big Rivers was fully compliant with all environmental regulations.

Mr. Painter discussed significant flexibility in the power supply contracts to adjust capacity, the advantages relative to project costs, and noted that FPB would see a 10%-15% savings in costs with the current power contracts based on the projected costs. He advised that these projected costs would equate to an approximate $7 million savings annually over Kentucky Utilities at 15% and a $4.5 to $5 million savings annually over Kentucky Utilities at 10%. He further advised that while there were some uncertainties, all studies indicated a substantial financial advantage to FPB and the community with the current portfolio.

Mr. Painter reiterated that the provisions of the all requirements contract under consideration by the Board did not prohibit FPB or the community from developing energy efficiency programs or from developing other resources on FPB's system,

nor did they prohibit individual customers from utilizing other resources allowed within FPB's net metering tariff. He further advised that those options would be enhanced under the all requirements contract with KyMEA. He further explained advantages with member owned and customer owned resources and efficiency programs.

Mr. Painter stated that KyMEA and the consultants were currently reviewing renewable options to be added to the portfolio.

Mr. Painter advised that the consultants highly recommend that every KyMEA member join together by approving and executing the all requirements contract with KyMEA. He advised that portfolio assembled by KyMEA has been through an exhaustive analytical process, was derived from competitive RFP's, is cost effective, and positions FPB well to transition into and to implement more renewables. He explained the milestones and history since FPB gave its termination notice to Kentucky Utilities. He further noted that most of the other KyMEA members are well on their way to executing the all requirements contract.

Mr. Painter explained that there were no benefits in delaying the approval or execution of the all requirements contract with KYMEA. He further advised any delay could pose the risk of increased energy costs due to the enormous amount of additional work to be completed by the end of 2016 and early into 2017.

In response to Ms. Rosen, Mr. Painter explained the benefits of the ten (10) terms on two of the energy contracts. He further explained that other favorable terms were agreed to because of the ten (10) year duration. He further explained the total amount of capacity in the current power purchase agreements already in place and reiterated that renewables would not meet capacity and would only be energy resources.

In response to Mr. Baldwin, Mr. Painter explained RFP responses from the open market and advised that those offers were more expensive when compared to the current portfolio with KyMEA. He further noted that FPB could not wait any longer on capacity due to the amount of work left to be ready for power supply by May 1, 2019. Mr. Painter advised that the consultants could meet and review reports summarizing the review and evaluation of the RFP responses.

Mr. Painter reiterated that nothing in the contract would restrict or prohibit customer owned resources and the benefits pursuant to FPB's net metering policy. Mr. Musson further reiterated that nothing in the contract prohibits generation on FPB's system. The consultants further discussed SEPA benefits under the all requirements contract.

The consultants fdiscussed flexibility built into the current portfolio, potential for adding renewables as soon as May 1, 2019, renewable resources currently being researched, the dangers and risks of committing to renewables too soon and the benefits of working in renewables over time as they become available at a more competitive rate.

After additional Board discussion, Mr. Baldwin moved to defer action on this item pending further conversations with the consultants and better understand the KyMEA contract. Mr. Rosen seconded.

Mr. Pogrotsky asked, in the interest of transparency, if any member of the FPB Board of Directors was now or has been in the last twelve (12) months, a member of Envision Franklin County? Ms. Rosen replied that she was unsure as to whether the group had formal membership but that they had donated money to the organization. Mr. Pogrotsky stated that he felt like there could be a conflict of interest in making an unbiased decision if a Board member were an active participant with an organization requesting a delay in this decision.

Mr. Pogrotsky asked, in the interest of transparency, if any board member had shared a contract with any member of the community that is not member of the FPB Board or a member of FPB Staff. Ms. Rosen stated that she had not shared the contracts with anyone and no other member of the Board commented. Mr. Pogrotsky stated that given some public email comments it appeared that some members of the community outside of FPB Staff and Board members had been afforded an opportunity to review specifics of contracts that had not yet been made public. Ms. Rosen added that the contracts had been discussed in previous FPB meetings as well as the public KyMEA meetings.

Ms. Poe called the vote by member and the motion failed with a 2-3 vote. Mr. Baldwin and Ms. Rosen voted "Yes". Dr. Green, Mr. Pogrotsky and Mr. Ludwig voted "No".

Dr. Green moved for approval of a Resolution and All-Requirements Power Contract between Frankfort Plant Board and Kentucky Municipal Energy Agency (KyMEA). Mr. Pogrotsky seconded.

Mr. Baldwin read the following statement:

"Our community has made a bold step that opened up a great deal of flexibility and control over our future by cancelling our contract with KU. With the adoption of the all requirements contract we are releasing our new found control to an unknown entity. With no history to consider how do we determine the collective intent of the new organization and that it will be in sync with our interests? How do we know that the significant investment the other major players in the organizations have made on aging carbon technologies won't become an undue burden on our community in the future? Will our community's future be leveraged to mitigate the costly past decision made by other larger members of KyMEA? We've only been offered one option here today. What are the other options? What are the costs of going alone on the open market? Are there other existing organizations such as AMP that are alternatives? What are their costs? Are there other options for coal that offer less exposure to environmental regulation costs? Are there options for more renewables now or in the future or near term? The comments that we've reviewed today speak to a number of concerns, but at the end of the day we are not voting on a presentation, we are voting on a contract. Reading through the contract several points don't seem to match the presentation. It's important that we take additional time to understand the contract in any places that may differ from the presentation. We are the proxies for our community. We are responsible for our community's wellbeing. Our responsibility to the community requires us to fully understand the potential risk we are assuming and guarantee that we are making the best decision possible for our future and our community's children's futures. That responsibility requires us not to take action on the KyMEA all requirements today. We should defer the adoption of the contract and use the interim time to resolve questions and concerns raised this evening."

With additional Board discussion, it was reiterated that as an all requirements member of KyMEA there was a potential for more than $5 million in savings to FPB and the Frankfort community annually which would allow FPB to hold steady its electric rates for years to come with minimal if any increases.

Mr. Pogrotsky called for the question. Ms. Poe called the vote by member and the motion passed with a 3-2 vote. Dr. Green, Mr. Pogrotsky, and Mr. Ludwig voted "Yes". Mr. Baldwin and Ms. Rosen voted "No".

10. **<u>Action Item:</u> Approve Amendment to the Guidelines Governing Employment, Electric & Water Plant Board of the City of Frankfort, Kentucky – Medical Leave and Family Leave, Effective September 1, 2016.**

Staff asks the Board to consider replacing the current Medical Leave and Family Leave policy (FPB Employee Guidelines, Section III) with the proposed new policy provided in this Board package.

The Family and Medical Leave Act requires employers to provide 12 weeks of job-protected unpaid leave to employees who have a serious health condition and to care for specific family members with a serious health condition. The current policy was adopted in 1993; in 2008 and in 2013 Congress amended the regulations and the changes have been incorporated into the new policy. FPB has complied with the revised regulations, but has not updated our policy until now.

The new policy combines "medical" and "family" leave into one more comprehensive section with language that is more consistent with the regulations. A copy of the proposed new policy and the current policy are both contained in the detail pages for this item.

The new policy includes the following changes:

- covers leave for the care of covered service members;
- covers leave for family members for activities that arise when a service member is deployed;
- describes what is considered a serious health condition under FMLA;
- provides more detail regarding certification requirement and fitness for duty requirement;
- explains continuing health care coverage while on FMLA

If approved the new policy will be incorporated into the Employee Guidelines Governing Employment and provided to employees.

Ms. Schneider explained the changes in the new policy which will replace the current policy. She advised that the new policy would incorporate the changes required pursuant to new federal regulations.

Dr. Green moved to approve the Amendment to the Guidelines Governing Employment, Electric & Water Plant Board of the City of Frankfort, Kentucky – Medical Leave and Family Leave, effective September 1, 2016. Mr. Ludwig seconded. Ms. Poe called the vote by member and the motion passed unanimously.

11. **Action Item: Consider Amendments to the Job Classification and Compensation Plan to Re-classify Two Positions in Cable/Telecommunications: the Senior Engineering Technician and the Business Products Specialist Position.**

1. Senior Engineering Technician Position:

Staff asks the Board to consider approving the reclassification of the Cable/Telecommunications department's Senior Engineering Technician position. If approved, Staff plans to post the position for internal candidates.

The position is needed to supervise and coordinate activities of the Cable/Telecom Engineering group and to provide guidance and support to the Cable/Telecom Engineering Technicians.

The position has been vacant since November 2014 when an employee in the position was promoted to the Engineering Technician III position. The employee has continued to perform the supervisory related duties and recently filed a grievance requesting the Senior Engineering Technician position be re-evaluated and posted for internal candidates to apply. The department is in agreement with re-evaluating the position and posting it internally.

Changes in the job description include requiring an additional year of work experience, GIS/fiber management software certification, and other changes that reflect the supervisory responsibilities of the position.

Based on an evaluation of the updated job description, the new pay grade for the position is 112; with a pay range of $26.55 to $39.82 per hour (the current pay grade is 110).

2. Business Products Specialist Position:

Staff requests that the Board consider approving the reclassification of this position based on changes in the job description. The changes include a reduction in the experience requirements (from 10 years to 5 years; the management experience requirement would be eliminated). Based on the updated job description, the changes will result in the pay grade decreasing from 112 to 108. The pay range for the positon would be $20.41 to $30.61 per hour (compared to $26.55 to $39.82 for grade 112).

The position is currently vacant and staff plans to re-post the position for internal and external candidates immediately.

A copy of the organizational chart, revised list of authorized positions, and updated job descriptions are included in the detail pages for this Board item.

Ms. Schneider explained changes in the job description and pay grade for the Senior Engineering Technician position and the Business Products Specialist positions.

After a brief discussion Mr. Pogrotsky moved to approve amendments to the Job Classification and Compensation Plan to re-classify two positions in Cable/Telecommunications: the Senior Engineering Technician and the Business Products Specialist positions. Mr. Ludwig seconded. Ms. Poe called the vote by member and the motion passed unanimously.

12. **Action Item: Consider Approving Stingray Music Renewal.**

Staff recommends approval of the Stingray Music renewal. This NCTC agreement has a term through June 30, 2020. The first year's rate reset is just under 3%. Year-over-year increases are just over 2% annually. The increases were anticipated and no increase to the Preferred Cable rate will be required. Stingray Music offers 50 full-time music channels which are available on FPB's optional Preferred Cable tier. FPB previously carried DMX and replaced it with Stingray Music (formerly called Galaxie Music) in 2012 as a way to provide a superior product at a lower price. TVE rights are included in this new agreement. No additional carriage requirements obligations are included in this agreement. This agreement has been reviewed by the Assistant GM for Administration and it meets with his approval.

Mr. Couch explained the renewal terms and noted a reduction in fees.

Dr. Green moved to approve the Stingray Music renewal. Mr. Pogrotsky seconded. Ms. Poe called the vote by member and the motion passed unanimously.

13. **Action Item: Consider Approving RFD-TV agreement.**

Staff recommends opting in to the RFD-TV agreement. This NCTC agreement has a term through March 31, 2021. FPB currently has a direct agreement for carriage of RFD-TV and carries RFD-TV on channel 123 and in HD on 623 on the optional Preferred Cable tier. This agreement affords FPB the opportunity to slightly reduce their current RFD-TV subscriber rate while moving from a direct agreement to an NCTC agreement, which saves us in administrative overhead. Future year-over-year increases are approximately 3%/year. RFD-TV is a 24-hour television network featuring programming focused on the agribusiness, equine and the rural lifestyle, as well as traditional country music and entertainment. RFD's viewership ranks it in the middle of the pack compared to other Preferred Cable networks. No additional carriage requirements obligations are included in this agreement. This agreement has been reviewed by the Assistant GM for Administration and it meets with his approval.

Mr. Couch explained that FPB currently has a direct agreement for this network and that this item would afford FPB the opportunity to reduce its administrative overhead costs by accepting the agreement through the NCTC.

Mr. Pogrotsky moved to approve the RFD-TV Agreement. Mr. Ludwig seconded. Ms. Poe called the vote by member and the motion passed unanimously.

14. **Action Item: Consider approval of Addendum #4 between Strand Associates, Inc. and FEWPB to perform design and construction services related to Reservoir Replacement Project in the amount of $265,126.51 and amend the engineering budget to $216,900.**

Beginning in 2007 FPB issued an RFQ and selected Strand Associates for engineering related services. The original contract provided a preliminary condition assessment. Addendum #1 (Phase II) detailed liner options and costs for updating the existing Reservoir. At the end of Phase II, it was ultimately decided that replacing the Reservoir with new pre-stressed concrete tanks was the most cost effective long term option. Addendum #2 (Phase III) entailed design and delivery of the new tanks, which was started, then ultimately put on hold due to the replacement of the cable department's head end project. Addendum #3 (Phase IV) included design of interim repairs and a monitoring program necessary to temporarily extend the service life during construction of the new head end. Now that the head end project is complete, it is time to finish design and replace the Reservoir, which will consist of one new 7 million gallon tank and a second one at some point in the future.

As a matter of course, Strand was requested to provide a Phase V (updated Phase III) scope of work to perform design and construction related activities. The purpose of the new scope of work is to update pricing to reflect the delay in the project as well as provide for services related to surveying, renderings, meetings with both Board and Public, and landscape drawings and specs.

Phase V engineering services include:

• Design Services	$ 82,612.00
• Bidding-Related Services	$ 13,400.00
• Construction-Related Services	$124,600.00
• Sub TOTAL	$220,612.00 ($168,000 in 2009)

Plus new Phase V services:

• Additional Services	$ 39,514.51
• Landscape Services	$ 5,000.00 (optional)
• Sub TOTAL	$ 44,514.51

Total Phase V Services	$265,126.51 (contract amount)
Previous FY years billings already invoiced	$ -58,226.51
Work remaining	$206,900.00

The FY 16-17 budget includes $202,400 for engineering and the FY17-18 budget includes $4,000,000 for construction of the project.

The addendum has been reviewed by the Staff Attorney and Staff recommends that the Board approve Addendum No. 4 with Strand Associates in the amount of $265,126.51 and amend the engineering budget to $216,900 (to include landscape services and $10,000 contingency).

Mr. Billings discussed the history and status of the project. He explained costs for services necessary to continue with the Reservoir project.

After a brief discussion, Mr. Ludwig moved to approve Addendum #4 between Strand Associates, Inc. and FEWPB to perform design and construction services related to Reservoir Replacement Project in the amount of $265,126.51 and amend

the engineering budget to $216,900. Dr. Green seconded. Ms. Poe called the vote by member and the motion passed unanimously.

15. **Action Item: Consider Approval of the Purchase Order with Office Resources, INC, for a Total Not to Exceed $540,000.**

In an effort to save on costs, the decision was made to directly purchase the furniture for the new Administration Building. This action eliminated the contractor's overhead and profit and allowed for purchasing the furniture on the Commonwealth of Kentucky State price contract.

Staff performed a review of the existing buildings and plans to relocate all existing filing cabinets, storage cabinets, newer office chairs, and some of the conference tables into the new building.

The new furniture consists of work stations for all of the offices, shelving units and storage cabinets for the storage rooms and custodial closets, cubicle work stations for Customer Service and the IT departments, lobby furniture, conference and break room furniture, and the board/community room tables and chairs.

Purchase Order Summary:

Ground Floor:	$160,266.44
First Floor:	$178,535.25
Second Floor:	$152,057.02
Total:	$490,858.71
With 10% Contingency:	$539,944.58

The intention is purchase the furniture for the original quote of $490,858.71, however, Staff is including a 10% contingency as recommended by ORI based on their previous experience with furniture purchase orders for other facilities. In addition, the exact purchase amount may vary if any minor revisions become necessary.

Included in the board package are portions of the purchase order identifying some of the key features in the new building, such as an individual office, a cubicle work station, the customer lobby, and the board/community room.

Staff recommends the Board approve the purchase order with Office Resources, INC.

Ms. Dutta explained the direct purchase of new furniture through the State price contract. She advised that Staff was compiling a list of new furniture as well as a list of what existing furniture will be moved to the new building. She noted that the request included a contingency but that Staff intended to stay at or below the total amount for new furnishings.

After a brief discussion, Dr. Green moved to approve the purchase order with Office Resources, Inc. for a total not to exceed $540,000. Mr. Ludwig seconded. Ms. Poe called the vote and the motion passed with a 3-2 vote. Dr. Green, Mr. Pogrotsky and Mr. Ludwig voted "Yes"; Mr. Baldwin and Ms. Rosen voted "No".

16. **Old & New Business:**

None

17. **Informational Item: General Manager's Comments.**

None

18. **Request Permission to have Chair call for a Closed Session** pursuant to KRS 61.810 (1)(c) for the discussion of proposed or pending litigation against or on behalf of FPB; KRS 61.810 (1)(f) for discussions which might lead to the appointment, discipline, or dismissal of an individual employee; and KRS 61.810(1)(b) for the discussion of the future acquisition or sale of real property.

    No closed session necessary

19. **Closed Door Session:**

    With no further business to discuss, Mr. Pogrotsky moved to adjourn. Dr. Green seconded. Mr. Ludwig called for the vote and the meeting adjourned.

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ATTEST:

Presentation to the Frankfort Plant Board

Regarding

The KyMEA
All Requirements Project

Proposed Arrangements for
the Supply of All Requirements Service
Commencing May 1, 2019

Working Together through KyMEA
- the Members' Interlocal Power Agency

August 16, 2016

v12 of 8/16/2016

Presentation: August 16, 2016 FPB Meeting

Objectives

1. Address certain questions posed since the July 19 FPB meeting
2. Summarize our conclusions and recommendations regarding the AR Contract.

Topics

1. Advantages - KyMEA versus KU and KyMEA versus Acting Alone
2. Potential Impact on FPB's Costs of Power Supply
3. Provisions in the AR Contract that Facilitate Member Development of Renewable and Other Resources and Efficiency Programs
4. Consideration and Potential Implementation of Renewables by KyMEA
5. Conclusions and Recommendations
6. Approval of the AR Contract – Perspective, Development Process, and Urgency of Approval

Introductions: Advisors

nFRONT CONSULTING LLC

John Painter
Fred Haddad Jr.
Bob Davis

NewGen Strategies & Solutions, LLC

Brown Thornton

SPIEGEL & MCDIARMID LLP

Tom Trauger
Margaret McGoldrick

Rubin & Hays
ATTORNEYS AT LAW

Charlie Musson

PFM

Michael Mace

Topic 1
Advantages - KyMEA v KU and KyMEA v Acting Alone

- **The transition from KU to working with the other Municipals through KyMEA is a major step forward**
  - Extremely positive, courageous step
  - Control as a group over power supply decisions
  - Foundation of lower cost conventional resource capacity
  - Flexibility to use SEPA capacity and energy to meet Member loads and develop other Member resources
  - Flexibility to incorporate renewables -- where you had none with KU
- **KyMEA allows the Members to realize advantages of working together -- instead of independently**
  - KyMEA is Not "Them" – it is "Us"

A Very Positive Transition -- FPB as Customer of KU to FPB Working Collaboratively through KyMEA

	As Customer of KU	KyMEA FPB Working Collaboratively With Other Municipal Systems
Control of Future Power Supply Situation and Power Supply Costs	➢ No Control over Decisions ➢ Subject to KU's Formula Derived Cost of Service ➢ Recourse: FERC Complaints	➢ Collaboratively Plan ➢ Potential for Substantially Lower Power Costs ➢ Recourse: Discuss with other Members
Reliance On Coal	Projected to Remain Very High through 2029 and Beyond	➢ Less Reliance on Coal through 2029 ➢ Flexible after 2029 ➢ Less exposure to CPP costs than as customer of KU
Opportunities to Use Member-Owned Resources	Practically --- None	AR Contract Provides for KyMEA to Facilitate Member-Owned Resources
Opportunities to Encourage Customer Efficiency Programs	Not Constrained	Not Constrained, KyMEA Can Assist
Opportunities to Use Renewable Resources	Practically -- Limited to Net Metering	KyMEA and/or Members can Choose to Develop Renewables

A Very Positive Situation -- FPB Working Collaboratively through KyMEA

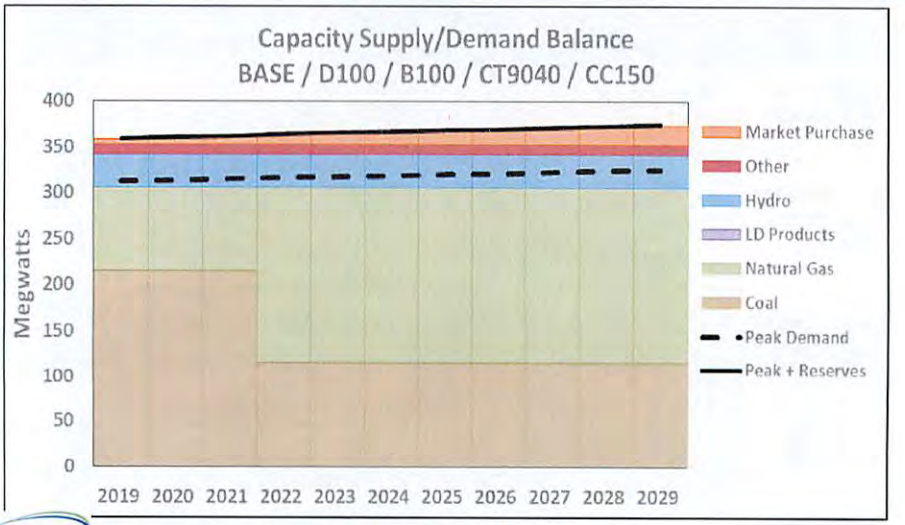
	Acting Independently	Under AR Contract with KyMEA Working Collaboratively With Other Municipal Systems
Planning and Administration	Bear 100% of costs	Substantial cost sharing benefits
Contracting for Power Supply Resources	➢ Smaller size of the portfolio will typically mean fewer or less attractive options ➢ Minimum contract capacity requirements more limiting ➢ Overall, more challenging and potentially more costly	➢ Significantly greater opportunities for more cost effective and competitive power supply options ➢ Ability to capture economies of scale not achievable when acting independently ➢ For example, the Portfolio assembled by KyMEA is lower in costs than single source power supply proposals received ➢ Benefits due to Member load diversity
Obtaining Value from Member Resource	Market will define the value	➢ Same, but typically more advantageous to the Member ➢ Ability to transact internally before transacting with the market
Developing Renewables	Not advantageous as compared to working through KyMEA	➢ Greater opportunities due to scale ➢ Joint operation and use offers potential for additional benefits and less uncertainty regarding benefits ➢ Ability to utilize renewable resources up to the limits of the technology

Topic 2
Projected Impact of the Proposed KyMEA Portfolio on FPB's Costs of Power

1. **KyMEA is well positioned, and is highly likely, to have a significant and sustainable competitive advantage relative to KU through the 2020s**
   - in terms of both capacity and energy related costs
   - under a wide range of future circumstances
2. **The potential competitive cost advantage KyMEA provides to FPB is very significant and important to FPB and its residential, commercial, and industrial customers**
   - Potential for $Millions in lower costs each year in the 2020s
3. **KyMEA has rights to extend key contracts beyond 2029, which positions KyMEA well to continue that advantage into the 2030s**

1. *The following slides show representative projected comparisons of KyMEA's costs to KU's costs under a consistent, reasonable, and, in key respects, conservative set of assumptions about future conditions.*
2. *Because future costs are dependent on many factors, it would be a mistake to focus on a single percentage or dollar amount of projected benefit. See Slides 71-76 for more information.*

Illustration of Base Case KyMEA All Requirements Power Supply Portfolio



Base Case – Foundational Resources in KyMEA's All Requirements Power Supply Portfolio

Power Purchase Agreements PPAs	Source	Capacity Purchased MW		Compliance with Existing Environmental Laws incl. in Price?	CPP Exposure
		6/2019 thru 5/2022	6/2022 thru 5/2029		
Big Rivers (BREC)	BREC System	100	100	Yes	Less Exposure than KU
Dynegy	Joppa Coal Units	100	0	Yes	None
Paducah	Combustion Turbine Plant	90	30-90	Yes	None expected
HenderSun/ Other	Combined Cycle with Duct Firing	None	50-150	Yes	None expected

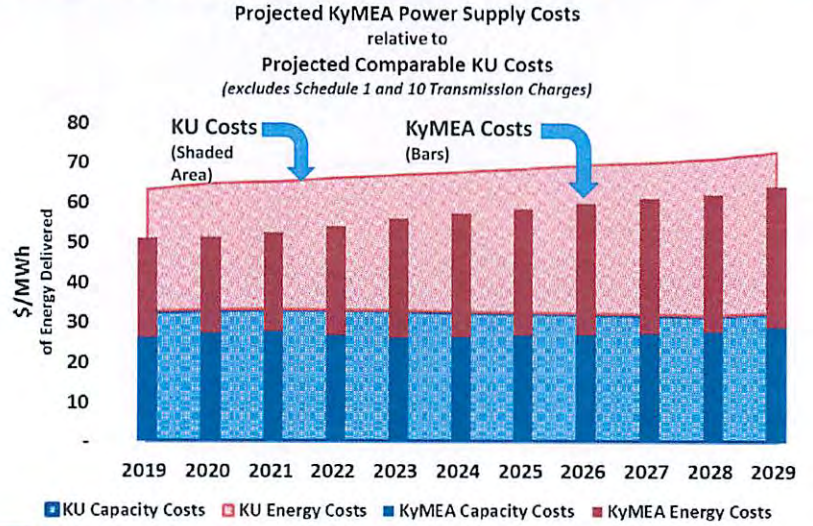
Note: KyMEA has certain rights to adjust amounts of capacity purchased under the PPAs.

The PPAs Provide Significant Flexibility
-- as to Amount of Capacity to be Purchased

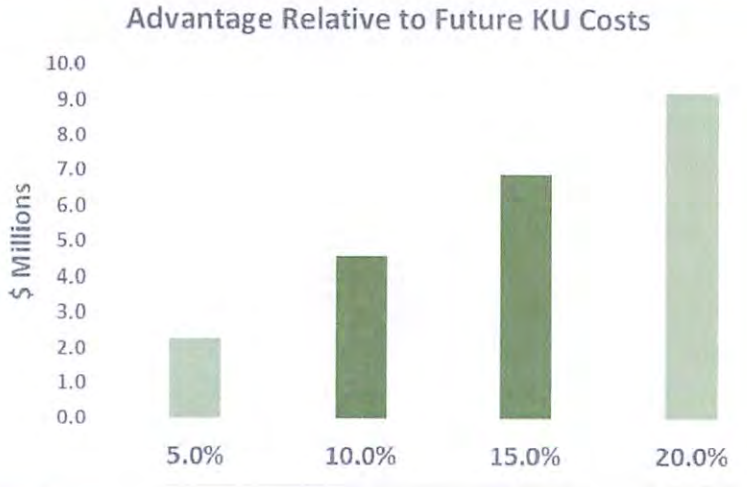
Proposal	Initial Capacity Nomination	June 2019 thru May 2022	June 2022 Thru May 2029	Option to Extend Contract beyond 2029
Big Rivers 10 Year (1) (2)	100 MW	Initial Nomination	May add up to 50 MW - 10 MW increments - with notice by 12/31/2017	At KyMEA's Unilateral Option
Dynegy (1) 3 Year	100 MW	May add up to 67 MW - with notice by 1/31/2017	NA	NA
Paducah 10 Year (1) (2)	90 MW	Initial Nomination	May increase up to plant capacity - 104 MW in summer, 120 MW in winter - with notice by 12/31/2017 May reduce nomination to as low as 30 MW - with notice by 5/31/2019	At KyMEA's Unilateral option - Must purchase 90 MW or more
Combined Cycle HenderSun or Other 10 Year	50 to 150 MW - for AR Members (3)	NA	To be negotiated	To be negotiated

(1) Adjustment may be made at KyMEA's option depending on load of Members that execute All Requirements Contracts. At KyMEA's Option, KyMEA may reduce the initial nomination if some AR Members do not participate.
(2) Term extendable at KyMEA's option.
(3) OMU may purchase additional capacity from HenderSun directly or through KyMEA.

KyMEA's Power Supply Costs are Projected to be Competitive with KU – One Scenario



Potential Annual Benefits of Lower Projected Future Power Supply Costs -- Very Significant for FPB and the Frankfort Community



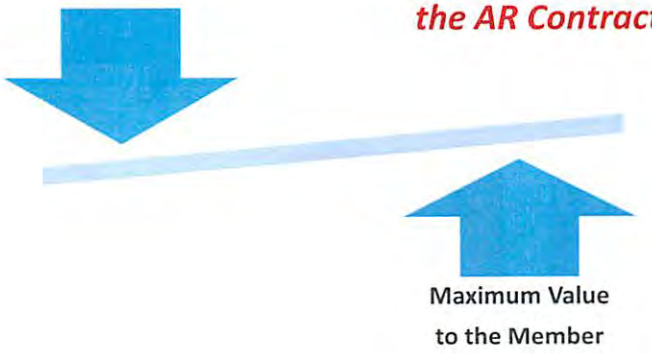
Topic 3
Provisions in the AR Contract that Facilitate Member Development of Renewable and Other Resources and Efficiency Programs

1. **Nothing in the AR Contract should prevent responsible actions by a Member with respect to:**
   - Member or Customer resources
   - Energy efficiency programs
2. **The AR Contract**
   - Does not interfere in these areas
   - Instead, it provides for KyMEA to facilitate Member-Owned Resources
3. **Any "limitations" in the AR Contract**
   - Protect one KyMEA Member from paying higher costs
   - Because of something in this area another Member does
   - Which is CLEARLY in the interests of FPB's customers
   - ***Remember -- KyMEA is Not "Them" – it is "Us"***

AR Contract Provisions
Pertaining to Resources and Programs on a Member's System

Avoid Shifting Costs to Other Members

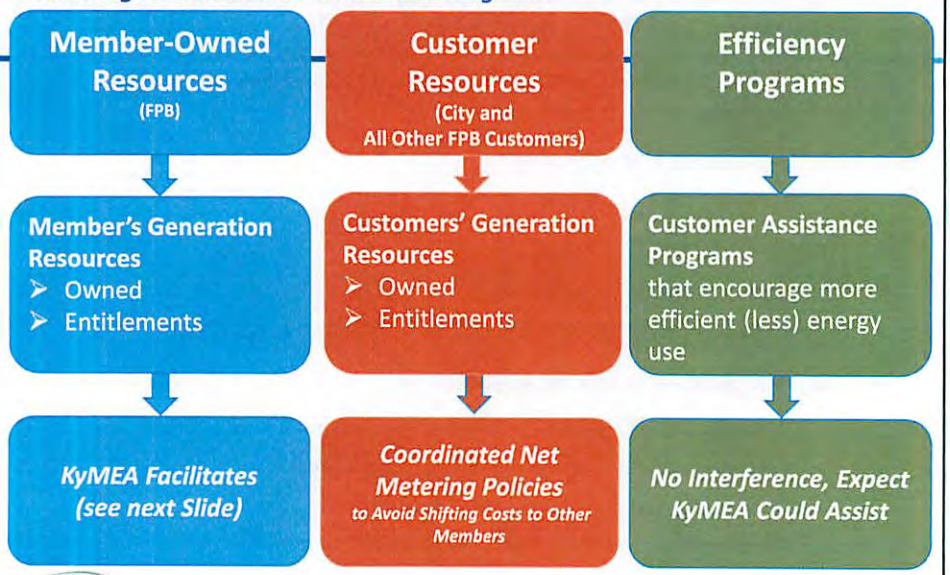
Key Principles Driving Pertinent Provisions of the AR Contract



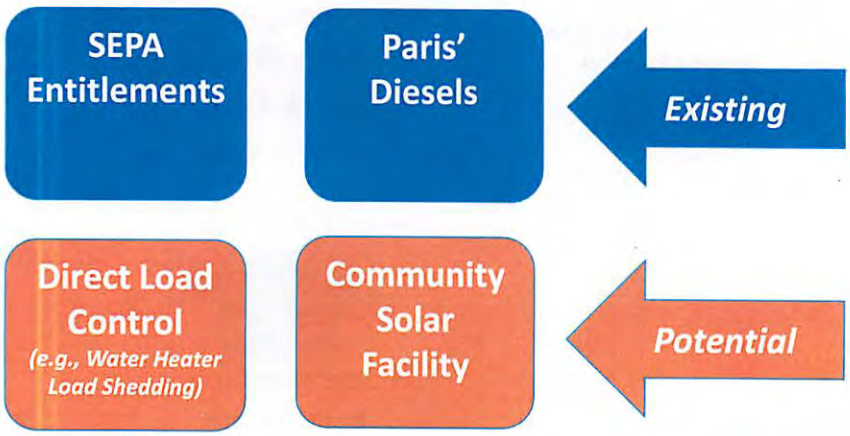
Maximum Value to the Member

AR Contract Provisions Deal with Three Key Situations

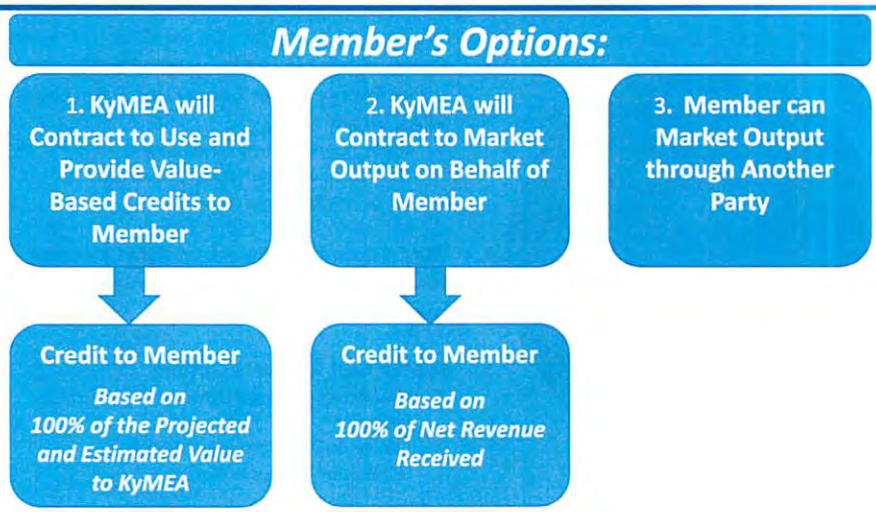
Pertaining to Load Side Resources and Programs



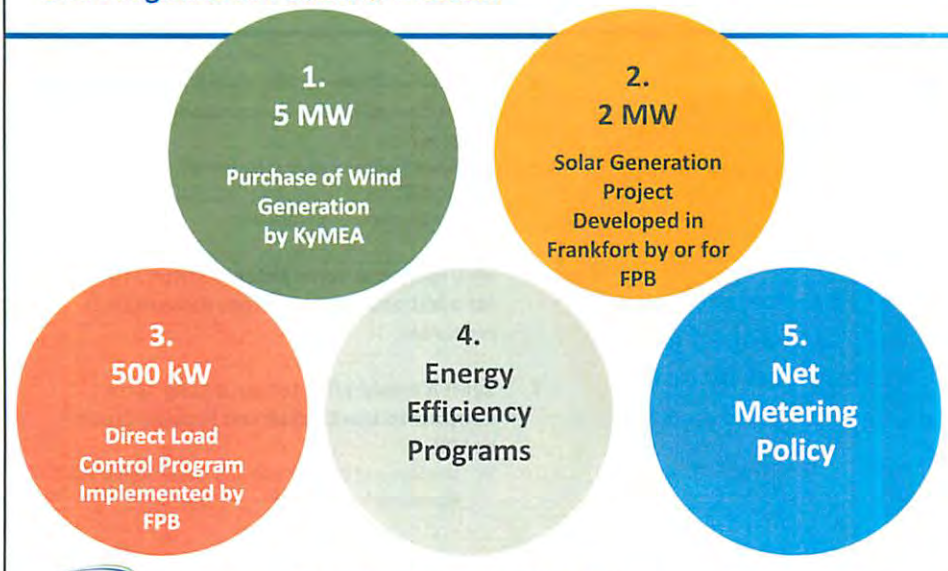
Member-Owned Resource Examples



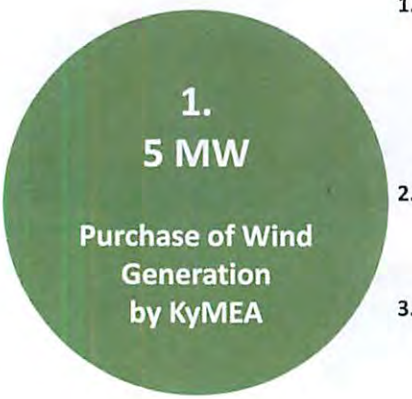
The All Requirements Contract Provides for KyMEA to Facilitate Member-Owned Resources in One of Three Ways



Examples – AR Contract Provisions pertaining to Projects and Programs of Potential Interest

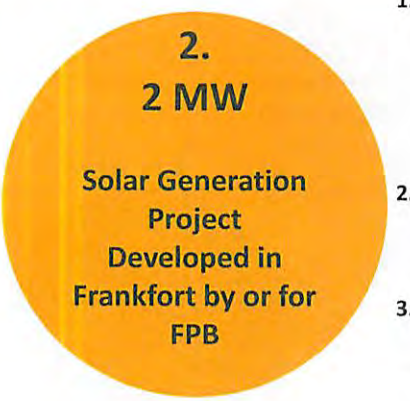


Example 1 - Renewable Resource by KyMEA



1. **Energy Available can be used by KyMEA to offset Energy Under Conventional Resource PPAs, which**
   - Allow hourly energy scheduling
   - Do NOT have "must-take" provisions
   - No re-marketing limitations
2. **May reduce to some extent KyMEA's need for additional capacity from conventional resources**
3. **KyMEA Cost Recovery Options**
   - Share costs among ALL Members – Portfolio Resource
   - Charge only Participating Members – Generation Resource Project

Example 2 - Renewable Resource by a Member



1. **Energy Available can be used by KyMEA to offset Energy Under Conventional Resource PPAs, which**
   - Allow hourly energy scheduling
   - Do NOT have "must-take" provisions
   - No re-marketing limitations
2. **May reduce to some extent KyMEA's need for additional capacity from conventional resources.**
3. **KyMEA would offer to sign a Long Term Contract to Use Output and Provide Credit to FPB**
   - Net Value of Energy and Any Other Applicable Attributes

Example 3 – Member Direct Load Control Project

1. **Dependable Capacity (amount of net peak load reduction) could be used by KyMEA to reduce need for additional capacity from other power supply resources**

2. **KyMEA would offer to sign Long Term Contract to Use Capacity and Provide Credit to FPB**
   - KyMEA can operate when load shedding is needed – much more favorable to Member than Member operating to clip billing demands
   - Credits to FPB would be based on KyMEA's Net Avoided Capacity Costs

Note: Direct load control programs may not be economic when considering the reductions in costs of capacity that can be achieved in today's market. As capacity becomes more valuable, direct load control programs may become more attractive.

Example 4 – Energy Efficiency Programs for Member Customers

1. **No limitation in the AR Contract**

2. **Our experience with other join action power agencies indicates that there are benefits to working together on these programs to share programs costs and make the programs more effective**

3. **If no other Members are interested, FPB could proceed to implement energy efficiency programs**

Example 5 – Net Metering Policy

1. **The AR Contract calls for the Members to coordinate net metering policies for the purpose of maintaining consistency among the members**
2. **Consistency as to the total magnitude of net metering on the Member systems is important to avoid shifting of costs between Members – Its in ALL Member's interests**
3. **Coherent, sensible net metering policies and/or special rate schedules for customers with generation are very important for each Member's customers**
   - Otherwise, customers with generation do not pay a fair chare of FPB's costs
   - Other customers pay higher costs than they would without Customer generation

Topic 4
Consideration and Potential Implementation of Renewables by KyMEA

1. **KyMEA has positioned itself well to take advantage of renewable energy resources in the future**
   - Sound foundation of very economic conventional resources -- for success in the 2020s
   - No obligations to take minimum energy amounts under the PPAs for Conventional Resources
   - "Room" to use any accredited capacity of renewables to offset future purchases of capacity from conventional resources
   - Ability to utilize renewable "as available" energy up to the limits of the technology
2. **KyMEA has authorized an initial assessment of Renewable options**
3. **Examples of Other Utility's Renewable Energy Programs Support the Approach taken by KyMEA**

KyMEA is Well Positioned to Adapt its Portfolio

to Take Advantage of Future Opportunities Presented by Renewable Technologies and the Energy Markets

Because KyMEA has not committed to all of the capacity resources currently projected to be needed to serve the AR Members' peak loads and has no re-marketing limitations in the PPAs, KyMEA is positioned to use any dependable capacity value of renewables if the Board determines it is appropriate to do so.

Because the PPAs include day-ahead and intra-day scheduling flexibility, and no must-take requirements or limits on remarketing energy, KyMEA is well positioned to arrange for and utilize:

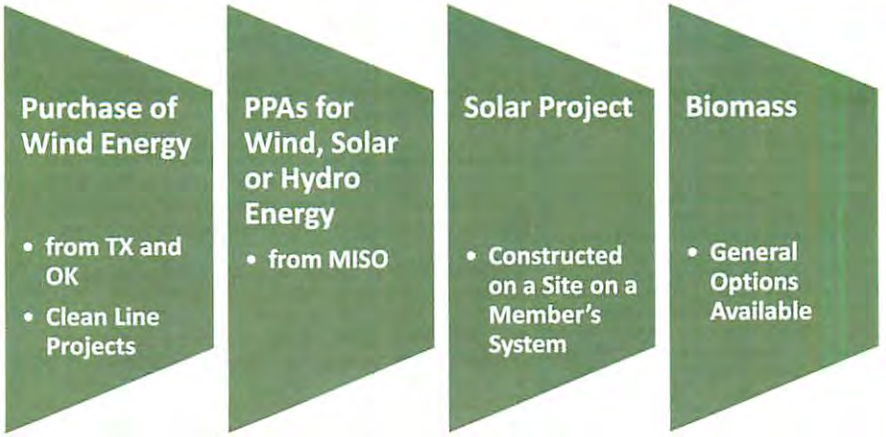
- Energy from renewable resources, or
- More Economic Energy from the alternative fueled resources in the market.

For instance, if natural gas prices increase, or coal energy costs increase due to CO2 legislation, and renewable energy is more attractive, KyMEA has the flexibility to use renewable energy in lieu of coal or natural gas resources available under the PPAs in any hour.

Also, if a Member or group of Members requests KyMEA to acquire renewable energy resources and commits to pay resulting higher costs, if any, KyMEA has the flexibility to do so and reduce or re-market purchases under the PPAs. The AR Contract provides for this to be done as a Generation Resource Project.

Renewable Options Being Evaluated

Ongoing KyMEA Board-Approved Renewable Energy Resource Assessment



Renewables Assessment -- Key Questions being Addressed

Quantitative:

1. Which renewable options are projected to be reasonable in cost?
   - Particularly among options that can be implemented as early as May 2019
2. Costs of conventional resources that would be avoided?
   - Capacity value
   - Energy value
3. Extent to which costs of renewables are competitive with Natural Gas fueled Combined Cycle (NGCC) resources
   - May impact contract for NGCC resource
4. Impact on Members' projected power costs
   - Short and longer term impacts
   - $ and % of total
5. Options for recovery of KyMEA's costs
   - Portfolio resource included in AR Rates to all Members?
   - Generation Resource Project in which some Members choose to participate?

Qualitative:

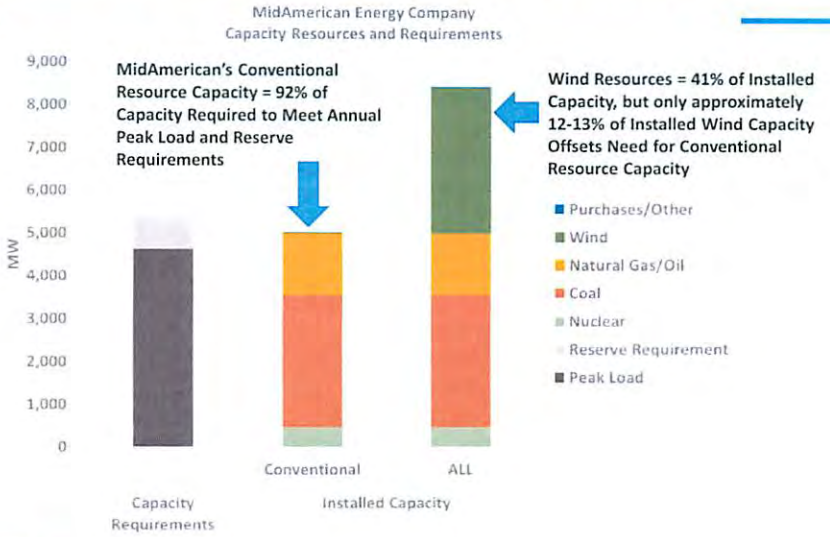
1. Issues that impact strategy and timing
   - Phase out of tax incentives that reduce costs of renewables
   - Projected cost reductions due to technology advancement
2. Procurement processes and strategies
3. Public Policy Considerations

MidAmerican Energy Company – Iowa (MidAmerican)
Extensive Commitment to Wind Resources

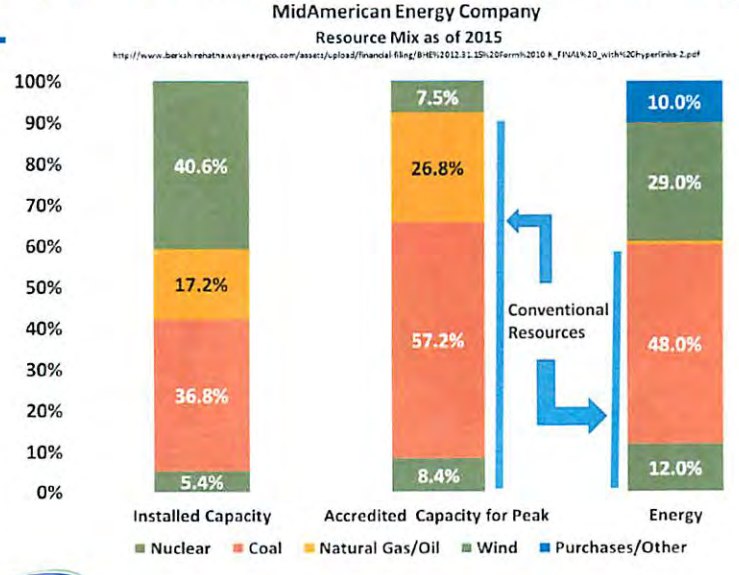
Ref: Appendix - Frankfort's Energy Future Report FINAL 8-8-16 ("the Report"), MidAmerican's Website, Rate Schedules and 2015 SEC 10k Filing

	Concepts Discussed in the Report	Other Information to Consider
Power Supply	Implication: MidAmerican is near to having a supply plan that would be 100% Renewables. *"At the end of 2015, 41% of their **capacity** came from wind and 37% came from coal. MidAmerican Energy is currently seeking approval from the Iowa Utilities Board to build a 2,000 MW wind project. When completed, their annual renewable energy generation is expected to meet 85% of their customer's annual retail usage. They are continuing to evaluate options for securing the remaining 15% needed to achieve their 100% goal."*	In 2015, 29% of MidAmerican's ***Energy*** production was supplied from renewable (wind) resources. Coal provided 48% and nuclear 12% of MidAmerican's ***Energy*** production. Although wind represented approximately 41% of MidAmerican's installed capacity in 2015, coal, natural gas, and nuclear capacity resources equaled 92% of the capacity available to reliably serve MidAmerican's peak load and reserve capacity requirements. ***MidAmerican remains mostly dependent on conventional resources to reliably meet peak period loads.*** ***It has taken MidAmerican 10 years to reach the current level of providing 29% of its energy from renewable wind energy.*** ***An example consistent with KyMEA's approach to establishing a sound foundation of economical conventional resources to meet KyMEA's load and adding renewable energy resources as appropriate.***

MidAmerican Energy Company
Conventional Resources are Still the Main Sources of Power Supply



MidAmerican Energy Company
Conventional Resources are Still the Main Sources of Power Supply



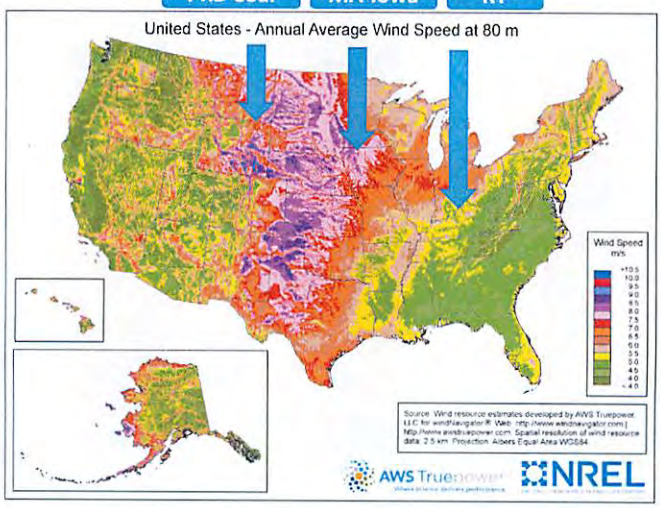
MidAmerican Energy Company – Iowa
Extensive Commitment to Wind Resources

Ref: Appendix - Frankfort's Energy Future Report FINAL 8-8-16 ("the Report"), MidAmerican's Website, Rate Schedules and 2015 SEC 10k Filing

	Concepts Discussed in the Report	Other Information to Consider
Cost and Competitive Considerations	*"MidAmerican states that they are achieving this (wind resource commitment) with minimal cost impacts to their customers.* *"Our rates in Iowa are the 7th lowest in the US – about 38% below the national average," as stated on their website."*	***MidAmerican's location makes energy produced with coal, natural gas, and wind less expensive than would be the case in KY. A similar power supply plan would cost much more in KY.*** ➢ MidAmerican is located much closer to the Powder River Basin (PRB) coal area, resulting in a coal cost advantage relative to KY. Also nearer sources of natural gas, which results in lower natural gas costs. ➢ More importantly, very productive wind resources can be located in MidAmerican's service area – no long distance transmission needed. Transmission, congestion and losses to bring wind to KY from areas of similar wind density can dramatically increase its cost per kWh. MidAmerican's costs are being favorably impacted by wind production tax credits, which for their existing resources are expiring between 2014 and 2025.

MidAmerican Energy Company - Iowa
Much Higher Wind Density and Closer to Lower Cost WY Coal

PRB Coal | MA-Iowa | KY

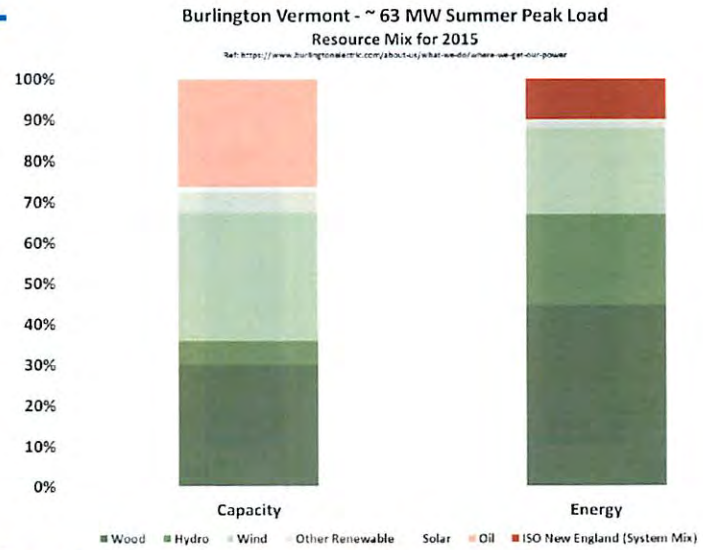


Burlington Electric Department (BED), Vermont
Example of System Supplied from Renewable Energy Resources

Ref: Appendix - Frankfort's Energy Future Report FINAL 8-8-16 ("the Report"), BED's Website, Rate Schedules and IRP

	Concepts Discussed in the Report	Other Information to Consider
Power Supply	Nearly 100% Renewable Energy	90% of ***Energy*** is supplied from renewable resources ***BED uses biomass and conventional resources to meet capacity requirements – wind contributes very little to capacity sufficiency***
	20% reduction in energy use due to efficiency programs	***Efficiency Programs take Time to Implement:*** ▪ 25 year period from 1990 to 2015 ▪ For a 15% to 20% reduction in use. Customers are more efficient today than in 1990

Burlington, Vermont
An Example of a System Primarily Using Renewable Resources

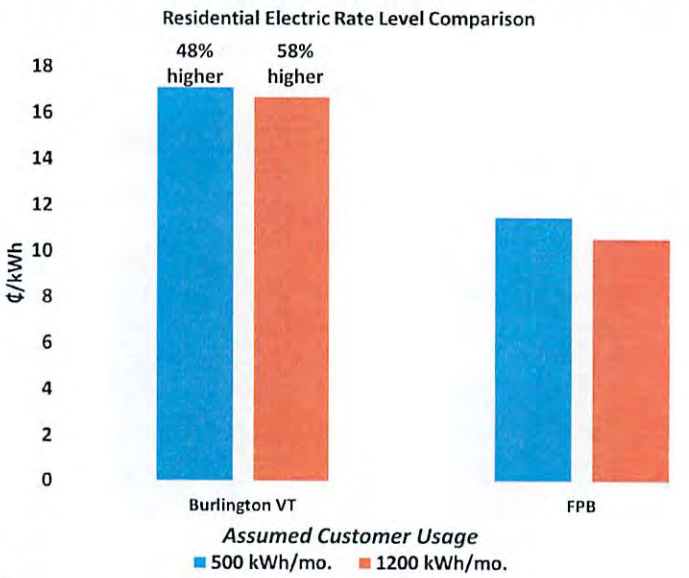


Burlington Electric Department (BED), Vermont
Example of System Supplied from Renewable Energy Resources

Ref: Appendix - Frankfort's Energy Future Report FINAL 8-8-16 ("the Report"), BED's Website, Rate Schedules and IRP

	Concepts Discussed in the Report	Other Information to Consider
Cost and Competitive Considerations	Their efficiency programs save Burlington consumers about $11 million of retail electric costs annually.	BED indicates the benefits of the efficiency programs to BED's customers are very positive. However, BED's costs are much higher than FPB's costs ▪ BED reports that its electric rates are competitive and lower than many systems in their region. ▪ ***However, BED's electric rates are approximately 50% or more higher than FPB's electric rates.***

FPB's Electric Rates are Attractive Relative to Burlington's Rates



Topic 5
Conclusions and Recommendations

- **The AR Contract is in the interests of all KyMEA Members**
  - Facilitates cost effective power supply
  - Allows Members to benefit from economies of scale
  - Appropriately provides for Member-Owned Resources
  - Reasonably protects Members from higher costs due to actions of other Members
- **The AR Project Resources planned are in the best interests of the Members**
  - Provides a foundation of cost effective conventional resources
  - Positions KyMEA well to incorporate renewables as appropriate
  - Are consistent with the Key Objectives established by KyMEA's Board

Key Objective 1
Competitive and More Affordable Future Cost of Electric Service *

** Although costs are projected to inflate in the future, KyMEA's goal is to have more competitive wholesale power costs, lessening upward pressure on rates to retail customers.*

Key Objective 2
Balancing Renewables and Conventional Resources *

Maintain flexibility in the portfolio for renewables and for adjusting resources to accommodate energy conservation and demand response programs

- Develop Cost Effective Reliable Portfolio of Conventional Resources
- Support Board and Member Interest in Developing Renewables, Conservation, and Demand Response Programs
- Continuously Adjust Portfolio over Time

** KyMEA's portfolio is projected to initially derive approximately 10% of its capacity and 4% of its energy from zero-emission hydroelectric resources. Also, the KyMEA Board approved a study to be conducted this year of renewable resource options that could be implemented by May 2019.*

Overall Conclusions: The Proposed AR Contract and Project Offer Significant Advantages

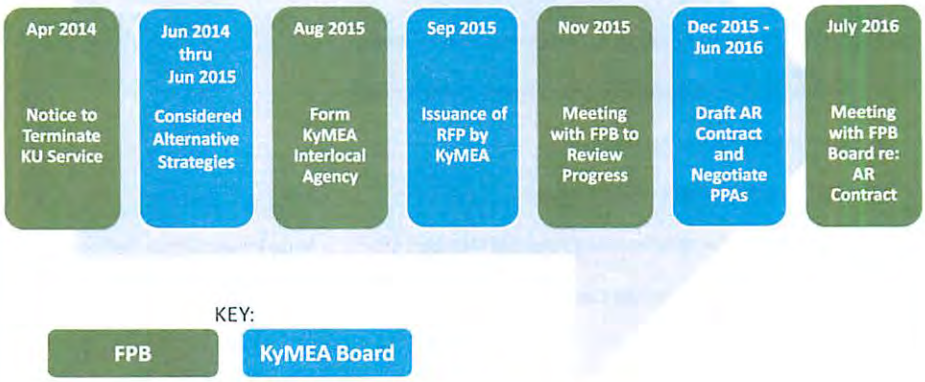
Favorable Situation for KyMEA Members

- **Power Supply Costs are Projected to be More Affordable**
  >> Relative to Projected Costs of Market Purchases and KU
- **Members will have More Control Over Decisions**
  Regarding Renewables and Other Power Supply Resources
- **For Member Owned Resources**
  Typically will Provide More Stable, Predictable Benefits
- **Consistent with Members' Goals in Setting up KyMEA –**
  Working Together to Better Serve their Customers

Topic 6
AR Contract Approval?

- **The Question for Today: Approve the AR Contract?**
  - Commitment to Work with Other Members on Power Supply
  - Charges based on FPB's Future Demand and Energy Requirements – not Project Shares
- **The AR Contract in Perspective**
  - For the Mutual Benefit of the AR Members
  - Not a Contract that Benefits a Counterparty
- **Urgency of Considering the AR Contracts?**
  - Overall Conclusion: Delay Does not Offer Benefit - Only Risk of Higher Costs
  - Key Near Term Time Critical Tasks

Key Milestones in Process of Developing the AR Contract and KyMEA Power Supply Arrangements



The AR Contract in Perspective

The AR Contract

- Result of 2 Year Planning Process
- Gives Effect to Interlocal Cooperation on Power Supply Approved by FPB Last Summer when KyMEA was Formed
- Contract is For the Mutual Benefit of the AR Members
- Not a Contract that Benefits a Counterparty

AR Contract Development Process		Key Business Fundamentals	
Reflects Best Practices of Other Joint Action Agencies	KyMEA Board Input During 6 Month Process	Drivers of Benefits: Critical Mass, Economies of Scale	Decisions by Member Reps: Policy, AR Rates, Power Supply

Key Near Term Time Critical Tasks

1. Obtaining Credit Rating for KyMEA NLT Early 2017
2. Obtaining Combined Cycle Resource Commitments in 4th Quarter 2016
3. Decisions regarding Initial Renewable Resources ASAP to Allow 2019 Implementation
4. Establishing SEPA Resource Arrangements with Members
5. Making Transmission Service Arrangement Commitments
6. Establishing Pooling Arrangements
7. Obtaining Approvals of BREC Contract
8. Supporting other Members and Potential Members Efforts to Make Power Supply Decisions
9. Making decisions regarding Capacity Nomination Rights under the PPAs by January and December 2017

Importance of Considering the AR Contracts without Delay

Overall Conclusion

Delay Does not Offer Benefit - Only Risk of Higher Costs

No Benefit Identified

- No Plausible Scenario Identified where Delay will Benefit Members
- Not Aware of Additional Key Information Expected to Become Available

Risks of Higher Costs

- Numerous Near Term Time Critical Activities Depend on Approval
- Delays in Those Activities Can Cause Significant Additional Costs to Members

Information Discussed at the July 19 FPB Meeting

The Slides that follow present information discussed during the July 19 meeting of the Frankfort Plant Board.

These Slides will not be part of the August 16 presentation, but are included for completeness and may be referred to as necessary to answer questions.

Most of the slides that follow were reviewed with the FPB at the July 19 meeting. However, some slides were prepared after the meeting to capture for the benefit of other KyMEA Members certain important discussions that occurred during the July 19 FPB Meeting.

Agenda Covered on July 19, 2016

Objective

Understanding of Main Provisions and Implications of the Proposed All Requirements Power Sales Contracts between Members and KyMEA

Topics

1. Introductions and Background
2. The Proposed All Requirements Power Supply Contract
3. Proposed Arrangements pertaining to Existing Member Resources
4. Management and Operation of KyMEA
5. KyMEA's Initial Power Supply Portfolio

Each KyMEA AR Member is Being Asked to Approve the Proposed All Requirements Power Sales Contract

Members - The Electric Systems Comprising KyMEA

(Alphabetical Listing)

1	Barbourville Utility Commission
2	City of Bardwell
3	Benham Power Board
4	Corbin City Utilities Commission
5	City of Falmouth
6	Frankfort Plant Board
7	City of Madisonville
8	Owensboro Municipal Utilities
9	City of Paris
10	City of Providence

Note: Currently, the All Requirements (AR) Members include all KyMEA Members other than OMU. OMU may become an All Requirements Member at a later date. Other municipal electric systems in Kentucky have expressed an interest in considering KyMEA Membership.

Introductions: Advisors

nFront Consulting LLC

John Painter
Fred Haddad Jr.
Bob Davis

NewGen Strategies & Solutions, LLC

Brown Thornton

Spiegel & McDiarmid LLP

Tom Trauger
Margaret McGoldrick

Rubin & Hays
Attorneys at Law

Charlie Musson

PFM

Michael Mace

Service to Retail Customers involves Three Business Areas – Only the Power Supply Area is Changing May 1, 2019

1. Power Supply	2. Transmission	3. Electric Distribution & Customer Care
70% to 80% *	5% to 10% *	20% to 25% *

* Examples of percentages of total charges to retail customers. Not specific to any KyMEA Member.

Historical

KU or AMP ** → LGE/KU → Member

** KU followed by AMP for Paris and Benham, KU for all other AR Members

Beginning May 2019

KyMEA for its Members → LGE/KU → Member

50

nFront Consulting LLC

The Members Targeted Key Benefits
-- in Deciding to Form KyMEA

Obtain more cost effective, reliable, and environmentally responsible power supply resources --- beginning May 1, 2019.

As compared to purchasing wholesale service from KU or other Providers beyond May 2019

- More Affordable Electric Service for Members' Customers
- Much Greater Role for Members in Power Supply Decisions

The Members' Goals can be Realized because Working Together through KyMEA is Expected to have Significant Benefits

Economies of Scale
- Planning
- Contracting
- Administering Programs
- Use of Power Supply Resources

Customer Focused Decisions by KyMEA's Board
- Resource Plans
- Renewables
- Rates and Charges

Critical Mass

KyMEA will be large enough to:
- Attract significant market opportunities
- Effectively plan future resources
- Evaluate and manage risks

KyMEA has Focused on Two Key Areas
-- since Formation in September 2015

1. Develop All Requirements Power Sales Contracts

Agreements under which Members would obtain All Requirements service through KyMEA beginning May 1, 2019

2. Assemble Key Resources/ Make related Transmission Service Filings

Identify and contract for key components of a power supply portfolio of resources to serve the KyMEA AR Members beginning May 1, 2019

The Proposed All Requirements Contract
Overview

Provides for All Requirements Power Supply for All AR Members

- Beginning May 1, 2019
- Working Together through KyMEA

Balances Individual and Collective Member Interests

For the Benefit of the Members' Customers

Establishes a Framework for Beneficial Use of Member Resources

- SEPA
- Paris Diesels
- Other

Intended to be Long-lasting Arrangement

- Evergreen Term
- Appropriate 5 year Member Exit Option

The All Requirements Contract

Summary of 7 Key Provisions

1. **Provides for KyMEA to Sell and Member to Buy All Requirements Power Supply**
   - All power and energy needed to service retail and municipal loads of the Member
   - And perform other related services requested by its Members and determined feasible and appropriate by KyMEA's Board
   - Member commits to take and pay for the power at rates established by the Agency Board of Directors

2. **Charges to each Member are determined under a rate schedule approved by the AR Members and the KyMEA Board**
   - Allows fair and reasonable allocation of benefits and costs to the Members
   - Payment due 15 days after invoice
   - Member covenants to set retail rates and charges sufficient to meet all obligations of its electric system, including obligations to KyMEA

3. **Term of Contract is Evergreen**
   - Member can terminate on at least 5 years' notice effective on May 31 of a year
   - Member must retain continuing obligations after termination for any difference between cost and value of the resources procured to meet canceling Member's loads.

The All Requirements Contract

Summary of 7 Key Provisions (Continued)

4. **All key decisions are made by the AR Project Committee of AR Members' Representatives, subject to Approval by the full KyMEA Board**
   - Power Supply Contracts, rate design and rate levels, and other key policies and procedures
   - One Vote per Member; a decision can be rescinded but not made based on a weighted voting process

5. **Member Resources are Provided For**
   - Member has the option to contract with KyMEA for KyMEA to use the Member-Owned Resource as part of the power supply portfolio or market the resource on the Member's behalf
   - Credits are provided based on the net value obtained by KyMEA from the resource
   - Applies to SEPA, Paris diesels, future resources, direct load control
   - Coordination regarding net metering programs
   - Provides an avenue for Members to individually develop community solar and other renewable projects if they desire --- as an alternative to doing so collectively through KyMEA

6. **No adverse impact on the Member's ability to issue debt**
   - Member covenants not to incur obligations that are superior to Member's obligation to KyMEA

7. **Provides Limited Authorization for KyMEA to issue debt**
   - Authorizes financing consistent with Prudent Utility Practice to meet liquidity needs and working capital requirements of the All Requirements Project
   - Member would not be responsible for Bonds for a Power Supply Resource without the written approval of the Member's Governing Body

The All Requirements Contract
Also addresses the following topics

8. **Default**
   - in the event of failure to pay or perform, or inability to meet financial obligations

9. **Dispute Resolution**

10. **Covenants of the Parties**
    - Related to performance of contract obligations

11. **Future Generation Resource Projects**
    - In which not all Members Participate (or participation shares are fixed)

12. **Other Authorities provided to, or by, KyMEA**
    - Member authorizes KyMEA to act as its agent to perform power supply and transmission functions
    - Agency authorizes its President and designees to perform the Agency's responsibilities and support AR Project activities, consistent with Board policies

Key Priorities will Impact the Setting of KyMEA's All Requirements Rates

1. **Equitable allocation of KyMEA's costs**
   - **Among the AR Members**
   - **Relative to KU formula rates**

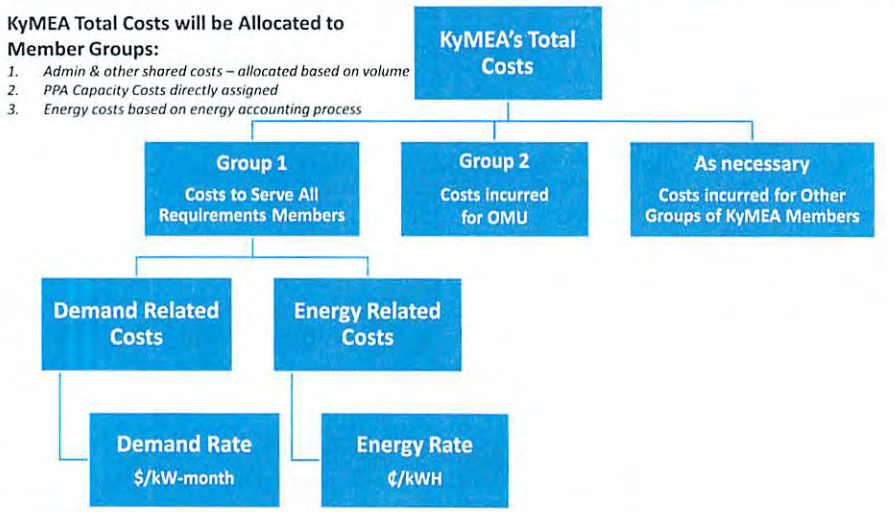
2. **Rate adequacy and stability**
   - **Timely base rate adjustments**
   - **Fuel or purchased power adjustment clause**
     - Allows base rate components to change less often
     - Passes through highly variable costs
     - Controls working capital requirements

3. **Providing a multi-year rate planning horizon for the Members**

Fair, Well Established Processes
will be Used by KyMEA's Board to Set All Requirements Rates

KyMEA Total Costs will be Allocated to Member Groups:

1. *Admin & other shared costs – allocated based on volume*
2. *PPA Capacity Costs directly assigned*
3. *Energy costs based on energy accounting process*



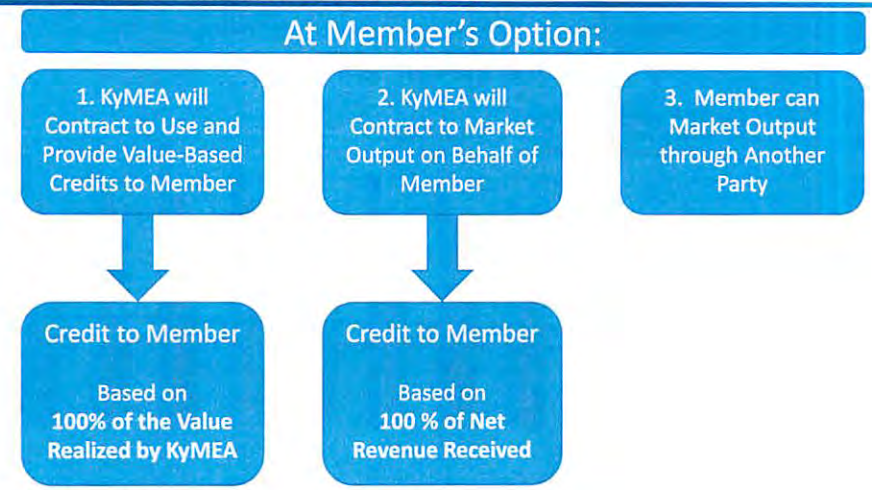
KyMEA's All Requirements Charges to Members
- Similar in Form to Current Wholesale Charges from KU, but Components 1 through 3 are Projected to be Lower in the Future than KU Charges

4 Main Components of Monthly Charges

Component		Billing Units		Rate
1. Demand Charge	=	Monthly Member Peak Demand (kW)	times	$/kW-mo.
2. Energy Charge	=	Monthly Energy (kWh)	times	¢/kWh
3. Fuel or Purchased Power Adjustment	=	Monthly Energy (kWh)	times	¢/kWh
4. Transmission LGE/KU Sched 1 and 10	=	Monthly Member Demand at Time of Trans. System Peak (kW)	times	$/kW-mo.

The All Requirements Contract Provides for Each Member to Maximize Benefits from Its Member-Owned Resources

(Currently, applies to SEPA and Paris Diesels. In the future, could also include Member-owned renewable, direct load control, and other resources.)

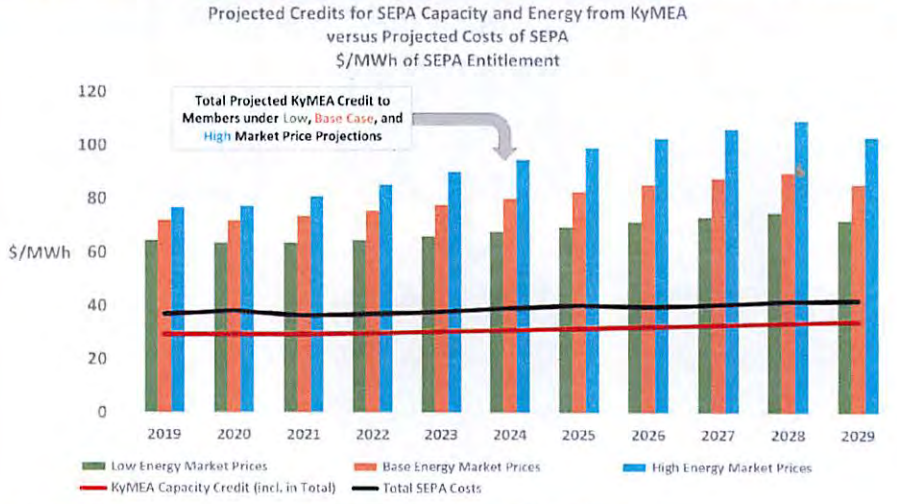


Example of Option 1 – Members' Credits based on 100% of Value to KyMEA of Using SEPA and Paris' Diesel Generation

1. **Contract with KyMEA will Provide Stability for Members**
   - Term of up to 10 years – 5/2019 through 5/2029
   - Expected to be extended as planning extends beyond 2029
2. **Contract will Specify Up Front the Credits from KyMEA for Resource Capacity**
   Determined based on capacity costs projected to be avoided by KyMEA -- For alternative sources of peaking capacity
   - For 1st 3 years , $3.85/kW-mo. of dependable capacity
   - Then escalating at CPI
   - For SEPA, plus 15% to allow for costs of reserves avoided by KyMEA
3. **Contract will Specify How to Determine Future Credits from KyMEA for Resource Energy**
   Will be determined based on actual value of energy to KyMEA in each hour
   - Net cost avoided by KyMEA for alternative energy sources, or
   - Actual net revenue realized by selling output to others.

Under Option 1: Total KyMEA Credits are Projected to Result in Significant Net Benefit to all Members that have SEPA

-- KyMEA Fixed Capacity Credits Alone Would Cover Most Projected SEPA Costs



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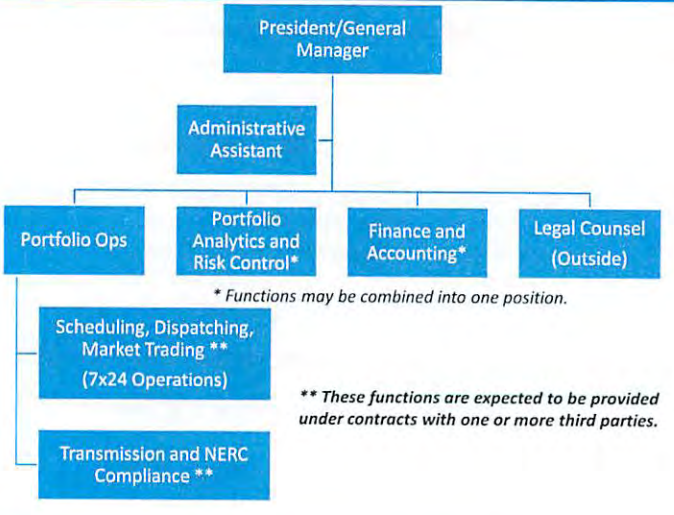
The Management and Operations Plan for KyMEA Calls for a Lean Power Supply Organization

-- Additional Organizational Planning is Scheduled for 2017



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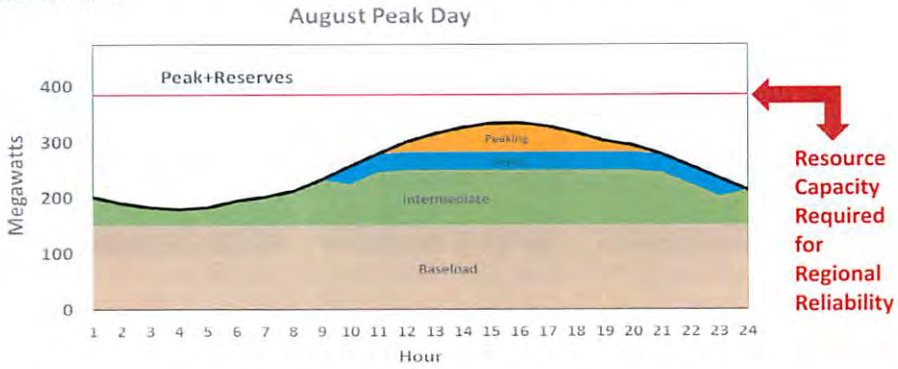
The All Requirements Portfolio

Topics

1. Goals
2. Process
3. Initial Key Resources
4. Flexibility to Adapt
5. Projected Cost of Power Supply
6. Competitiveness of Power Supply Portfolio

Why a Portfolio of Different Types of Resources? Why are Conventional Resources Important?

Even on Peak Days, load varies significantly over the hours of the day. Renewables do not reliably provide energy at the times demanded by customers. Economic supply requires use of multiple conventional and renewable resources --- each with different operating economics and characteristics.



Annual Minimum Loads are Typically 25-30% of Annual Peak Loads & Combining Loads of Multiple Systems Benefits from Load Diversity.

Key Objective 1

Competitive and More Affordable Future Cost of Electric Service *

Coal and Natural Gas Resources

Less Coal, More Flexibility than KU

Each Resource Must be Competitive

Competitive Advantage

More Affordable Power Supply

** Although costs are projected to inflate in the future, KyMEA's goal is to have more competitive wholesale power costs, lessening upward pressure on rates to retail customers.*

Key Objective 2

Balancing Renewables and Conventional Resources *

Maintain flexibility in the portfolio for renewables and for adjusting resources to accommodate energy conservation and demand response programs

Develop Cost Effective Reliable Portfolio of Conventional Resources

Support Board and Member Interest in Developing Renewables, Conservation, and Demand Response Programs

Continuously Adjust Portfolio over Time

** KyMEA's portfolio is projected to initially derive approximately 10% of its capacity and 4% of its energy from zero-emission hydroelectric resources. Also, the KyMEA Board approved a study to be conducted this year of renewable resource options that could implemented by May 2019.*

Process – Two RFPs – Identified 4 Resources

Negotiation of Power Purchase Agreements (PPAs) with Highest Evaluated Proposers

September 2015 RFP

- Coal: 10 Year Purchase from Big Rivers (1)
- Coal: 3 Year Purchase from Dynegy (1)
- Natural Gas: 10 Year Purchase from HenderSun Proposed Combined Cycle Unit (2)

April 2016 RFP

- Natural Gas: 10 Year Purchase from Paducah's Combustion Turbines for Peaking Capacity (1)

(1) Under Contract. Transactions begin June 1, 2019
(2) Contract being negotiated. Transaction anticipated to begin June 1, 2022.

Process – Very Thorough Evaluation of All Responses to the RFPs and All Options Presented by Those Responses

Quantitative Assessment

- Individual Proposals
- Portfolios

Qualitative Assessment

- Price/Cost Uncertainties
- Numerous Other Factors

Most Advantageous Proposals

Qualitative Considerations

(Not listed in order of priority)

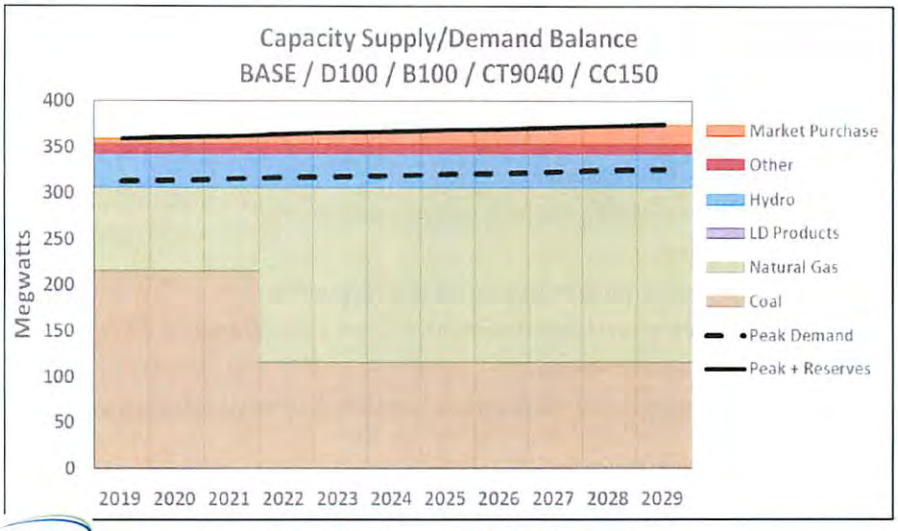
1. Certainty or uncertainty of key proposal factors, such as uncertainty as to whether a resource on which a proposal was based would remain in service throughout the term of the transaction
2. Point of delivery and related uncertainties regarding transmission availability and costs, congestion, and losses
3. Price certainty (e.g., extent to which proposer was willing to fix the price of capacity)
4. Clean Power Plan (CPP) cost exposure
5. Resource availability guarantees
6. Flexibility as to transaction term and amounts of capacity to be purchased
7. Uncertainties caused by proposal provisions related to determination of energy entitlement
8. Day-ahead and intra-day energy scheduling flexibility
9. Fuel supply related considerations
10. Creditworthiness considerations

The PPAs Provide Significant Flexibility
-- as to Amount of Capacity to be Purchased

Proposal	Initial Capacity Nomination	June 2019 thru May 2022	June 2022 Thru May 2029	Option to Extend Contract beyond 2029
Big Rivers 10 Year (1) (2)	100 MW	Initial Nomination	May add up to 50 MW - 10 MW increments - with notice by 12/31/2017	At KyMEA's Unilateral Option
Dynegy (1) 3 Year	100 MW	May add up to 67 MW - with notice by 1/31/2017	NA	NA
Paducah 10 Year (1) (2)	90 MW	Initial Nomination	May increase up to plant capacity - 104 MW in summer, 120 MW in winter - with notice by 12/31/2017 May reduce nomination to as low as 30 MW - with notice by 5/31/2019	At KyMEA's Unilateral option - Must purchase 90 MW or more
Combined Cycle HenderSun or Other 10 Year	50 to 150 MW - for AR Members (3)	NA	To be negotiated	To be negotiated

(1) Adjustment may be made at KyMEA's option depending on load of Members that execute All Requirements Contracts. At KyMEA's Option, KyMEA may reduce the initial nomination if some AR Members do not participate.
(2) Term extendable at KyMEA's option.
(3) OMU may purchase additional capacity from HenderSun directly or through KyMEA.

Illustration of Base Case KyMEA All Requirements Power Supply Portfolio



Benefits of the Proposed Portfolio Structure

– Provides Significant Flexibility to Adapt to Future Scenarios

1. *Demand Costs*
2. *Energy Costs*
3. *MISO Costs*
4. *Implementing Necessary Transmission Arrangements*
5. *Counterparty Risks*
6. *Members' Loads turn out higher or lower than Forecast – Use of Renewables*
7. *OMU Desires AR Service before the end of the 2020s*
8. *HenderSun Project does not proceed*
9. *Avoids Uncertainties that Impact Market Based AR Purchases*

KyMEA's Power Supply Costs are Projected to be Competitive with KU – Important Future Considerations

Future Conditions will Not Impact Costs of KyMEA and KU to the Same Extent

The levels of KyMEA's power costs relative to:

a) **costs determined under KU's FERC regulated formula rates to wholesale customers, and**

b) **market prices for capacity and energy**

will depend on future conditions in several areas, including for example:

- Fuel prices and fuel transportation costs;
- Technological and economic improvements in renewable energy resources;
- Environmental policies;
- Customer peak demands, energy requirements, and energy usage patterns;
- Decisions to be made by KyMEA and KU regarding future capacity and energy resources;
- State and Federal regulatory decisions;
- Balance of supply versus demand and types of resources traded in the MISO and PJM capacity and energy markets;
- Escalation and inflation of costs; and
- Economic conditions.

KyMEA's Power Supply Costs are Projected to be Competitive with KU – Structure of KyMEA Portfolio is Key

KyMEA's Portfolio Structure Offers Flexibility to be Successful under a Wide Range of Future Conditions

KyMEA's portfolio has been structured specifically to position KyMEA to remain competitive with or lower in cost than KU under a wide range of future conditions with regard to the foregoing factors. Key aspects of that positioning have included:

- Assembling a portfolio of resources for KyMEA that will position KyMEA to be able under a wide set of future conditions to use energy produced from a mix of fuels similar to KU's mix, but somewhat less coal dependent;
- Negotiating terms of PPAs that provide KyMEA significant flexibility in several key areas, including:
  - Rights to make specified adjustments (with required notices) in the future to the amounts of capacity purchased under each PPA;
  - Rights to determine, day-ahead and intra-day, the amounts of energy KyMEA will purchase from the resources or the market if more economical under each PPA (no must-take provisions);
  - Rights to remarket capacity and energy purchased under the PPAs (no limitation on KyMEA's use of the capacity or energy purchased); and
  - Rights, but no obligation, for KyMEA to extend its 10 year contracts for coal capacity and peaking capacity for second 10 year terms.
- Entering into a PPA for the coal component of KyMEA's resource portfolio that is based on a coal resource located in Kentucky, which:
  - Burns coal that is similar in type to coal consumed in KU's coal plants, with similar uncertainties regarding coal prices and transportation costs, and
  - Is expected to have similar or less exposure to CO_2 legislation than KU's system of coal units.

Key Conclusions: KyMEA's Power Supply Costs are Projected to be Competitive with KU under a Wide Range of Future Conditions

1. There is a High Probability of Competitive Advantage

- The following slides show representative projected comparisons of KyMEA's costs to KU's costs (and to current expectations of future market prices) under a consistent, reasonable, and, in key respects, conservative set of assumptions about future conditions.
- Because future costs are dependent on many factors, such as those listed in the second preceding slide, it would be a mistake to focus on a single percentage or dollar amount of projected benefit.

Considering the structure of KyMEA's portfolio and the various analyses performed, we have concluded that:

- ✓ *KyMEA is well positioned, and is highly likely, to have a significant and sustainable competitive advantage relative to KU through the 2020s in terms of both capacity and energy related costs under a wide range of future circumstances;*
- ✓ *KyMEA has rights to extend key contracts beyond 2029, which positions KyMEA well to continue that advantage into the 2030s; and*
- ✓ *The projected costs of KyMEA's portfolio compare favorably to current expectations regarding future market-based prices for energy and capacity.*

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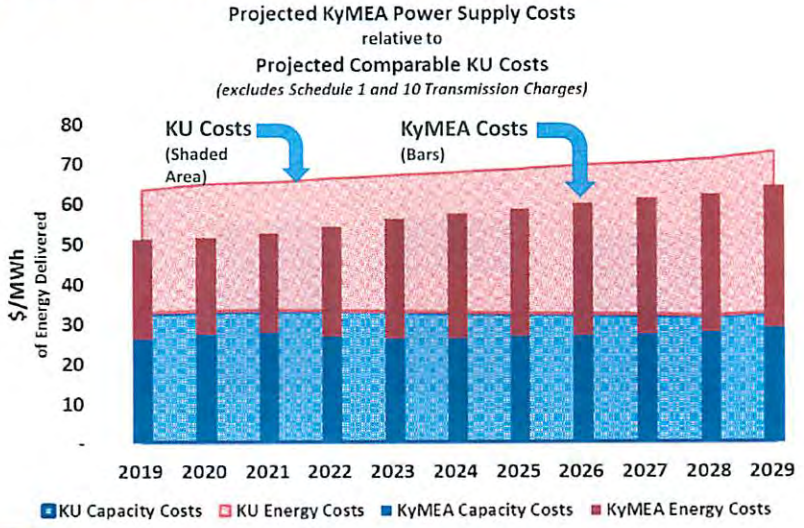
KyMEA's Power Supply Costs are Projected to be Competitive with KU – One Scenario



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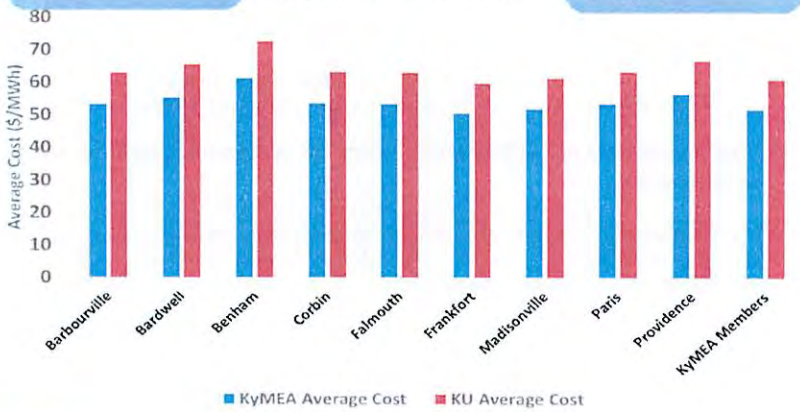
The KyMEA Members are Projected to Share Proportionately in the Projected Competitive Advantage relative to KU – One Scenario

Average costs vary for Members because of differences in the monthly amount of energy each Member uses relative to peak demand, on average over the year.

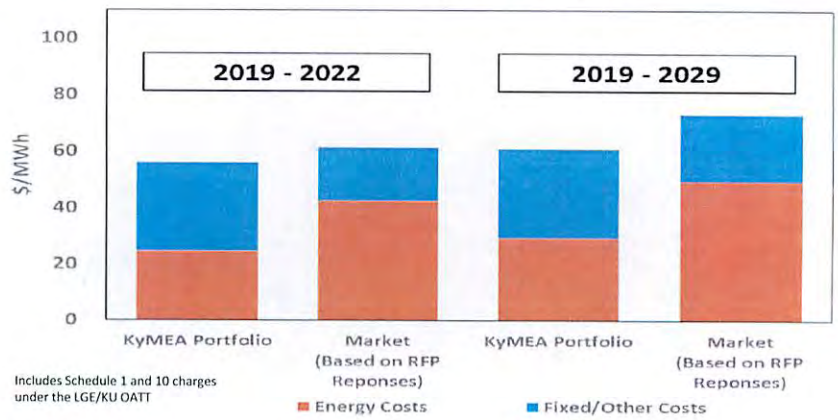
Example: Projected Average Costs of Delivered Wholesale Power KyMEA vs. KU
(excludes Schedule 1 and 10 Trans. Charges)

All KyMEA Members are projected to have a substantial and proportionate competitive advantage, as compared to KU, under the proposed KyMEA Arrangment.



KyMEA's Power Supply Costs are Projected to be Competitive with Market Purchases – Short and Long Term – One Scenario

Comparison of Preferred and AR Portfolios NPV Avg Cost
Base Fuel/Market, No Econ Purchases, No CO2 Costs



Includes Schedule 1 and 10 charges under the LGE/KU OATT

Key Conclusions: Reasonable and Flexible Capacity Portfolio

2. KyMEA's planned resources are reasonably related to the projected capacity and energy requirements of KyMEA's All Requirements Members and provide flexibility for KyMEA to:

- ✓ Adapt the amount of capacity purchased if future loads are higher than now forecast;
- ✓ Adjust for lower demands and energy requirements resulting from lower than forecast load growth, and/or conservation efforts implemented by customers, Members, and KyMEA.

Key Conclusions: KyMEA is Well Positioned to Benefit from Energy Markets and Renewable Advancements

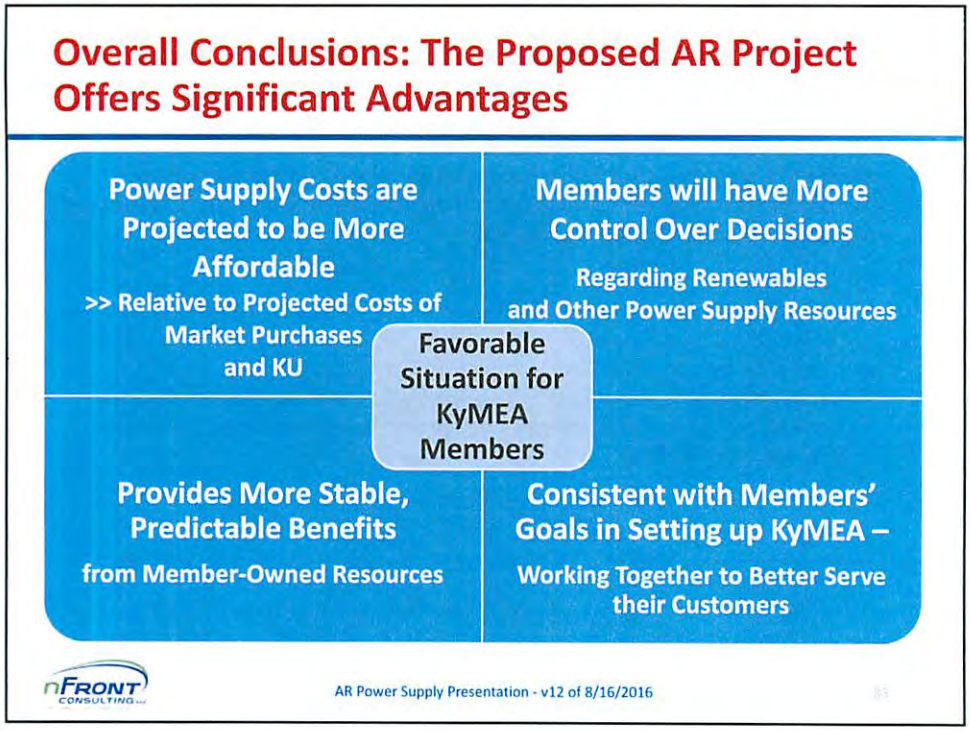
3. KyMEA is Well Positioned to Adapt its Portfolio to Take Advantage of Future Opportunities Presented by the Energy Markets and Further Advancements in Renewable Technologies

Because the PPAs include day-ahead and intra-day scheduling flexibility, and no must-take requirements or limits on remarketing capacity and energy, KyMEA is well positioned to arrange for and utilize:

- Energy from renewable resources, or
- Energy from alternative fueled resources

as KyMEA determines it is appropriate to do so, regardless of the capacity commitments in the KyMEA power supply portfolio.

- For instance, if natural gas prices increase, or coal energy costs increase due to CO2 legislation, and renewable energy becomes more attractive, KyMEA has the flexibility to use renewable energy in lieu of resources available under the PPAs.
- Also, if a Member or group of Members request KyMEA to acquire renewable energy resources and commit to pay any resulting higher costs, KyMEA has the flexibility to do so and reduce purchases under the PPAs.


Overall Conclusions: The Proposed AR Project Offers Significant Advantages
Power Supply Costs are Projected to be More Affordable
>> Relative to Projected Costs of Market Purchases and KU
Members will have More Control Over Decisions
Regarding Renewables and Other Power Supply Resources
Favorable Situation for KyMEA Members
Provides More Stable, Predictable Benefits
from Member-Owned Resources
Consistent with Members' Goals in Setting up KyMEA –
Working Together to Better Serve their Customers
nFRONT CONSULTING
AR Power Supply Presentation - v12 of 8/16/2016