

Presentation to Fitch Ratings

Introduction to Kentucky Municipal Energy Agency (“KyMEA”)

*Working Together through KyMEA
- the Members’ Interlocal Power Agency*

March 15, 2017

Today's Discussion

Objective

Introduce KyMEA, its Members and its Mission

Mission:

Working together to obtain more cost effective, reliable, and environmentally responsible power supply resources.

Topics

1. KyMEA Introduction and Background, Management and Operations
2. The All Requirements (AR) Power Supply Contracts
3. KyMEA's Initial All Requirements Power Supply Portfolio
4. AR Member Financial Info/Credit Strength
5. Summary and Q&A

KyMEA Meeting Participants

Participants	Affiliations
KyMEA	
Ron Herd, Chairman KyMEA	General Manager, Corbin Utilities
Vent Foster, Secretary KyMEA	Assistant General Manager for Operations, Frankfort Plant Board
Herbbie Bannister – Alternate Director KyMEA	General Manager, Frankfort Plant Board
Chris Melton – Chairman AR Project Committee	Superintendent, Madisonville Municipal Electric Utilities
Advisors	
Mike Mace	PFM
Charles Musson	Rubin & Hays
Brown Thornton	NewGen Strategies & Solutions
Fred Haddad	nFront Consulting
John Painter	nFront Consulting

Advisors to KyMEA



John Painter
Fred Haddad Jr.
Bob Davis



Brown Thornton



Tom Trauger
Margaret McGoldrick



Charlie Musson



Michael Mace

1. KyMEA Introduction and Background, Management and Operations

1. Historical Background
2. Members' Reasons for Forming KyMEA
3. Members Form KyMEA by Entering the Interlocal Agreement
4. Establishment of the AR Project and AR Project Committee
5. Services to be Provided to Member Groups
6. Staffing and Organizational Plans for KyMEA

Historical Background

-- Spring 2014 Thru Summer 2015

KU Wholesale Customers

Decided in Spring 2014 to Terminate Service from KU effective May 1, 2019

Need to Implement a New Power Supply Program by May 1, 2019

OMU

Long on Capacity and Market Capacity Rates Volatile and Lower than Expected

OMU's Elmer Smith Station
Over 400 MW 2-Unit Coal Facility

Cooperative Efforts

Late Summer to Dec 2014:

Evaluation of OMU Concept and Other Potential Directions

Jan 2015 thru June 2015:

Further Work on OMU Concept

Summer 2015:

Decision by AR Group to Assemble a Portfolio

Decision by AR Group and OMU to Form KyMEA

The AR Members' Historical Power Supply

- Historically, the AR Members, Berea, and Benham were supplied as wholesale customers of KU for over 4 decades
- KU had historically been a low cost provider and the relationship with KU worked
- As cost of coal resources began to change and KU went through ownership changes, the relationship moved in a less positive direction

Drivers of KU Wholesale Customers' Decision in November 2013 to Consider Power Supply Alternatives

Higher Charges from KU

Historical and Projected Increases

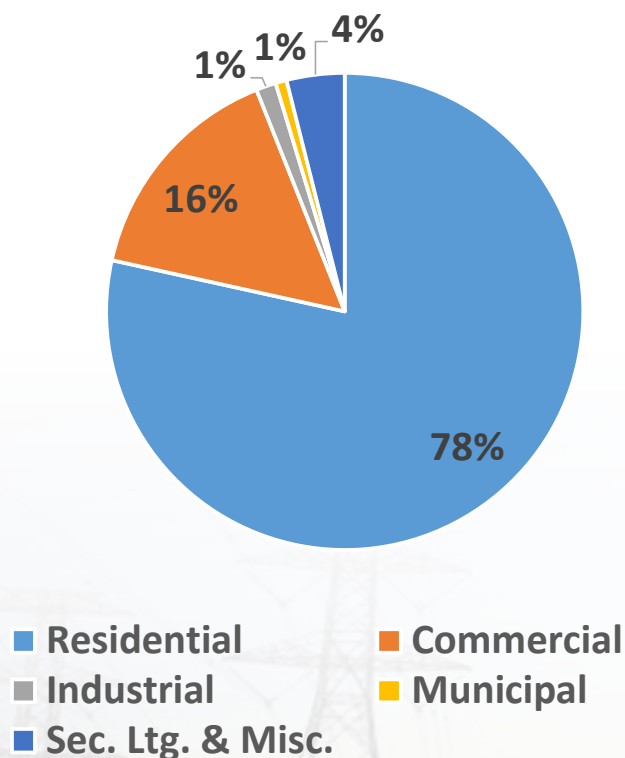
Adverse Changes in the Relationship

Resulting in Higher Uncertainty,
More Risk, and Adversarial
Relationship

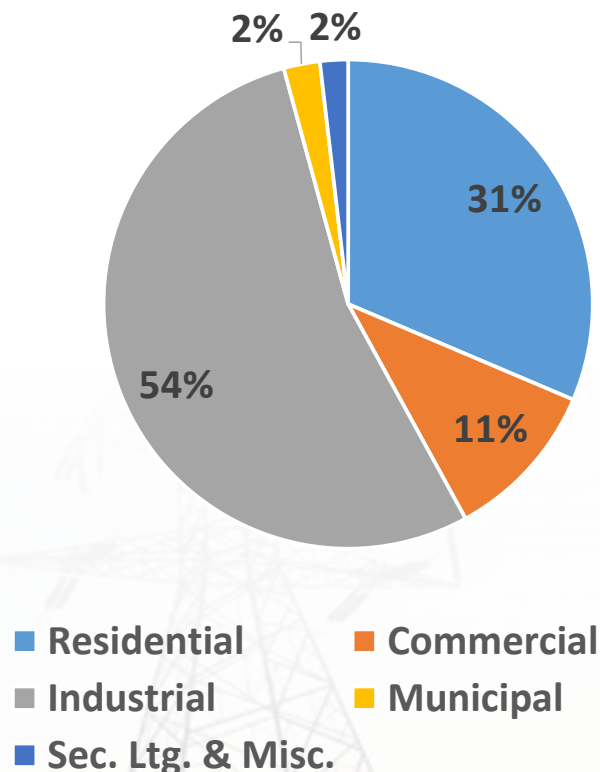
Cost of Power is Very Important to the AR Members' Electric Customers

For instance, for FPB, 67% of Energy Sales are to Industrial, Commercial, and Municipal Customer Groups, and the Residential Customer Group includes low income customers, *all of which are price sensitive*

FPB Provides Service to Approximately 21,000 Customers



54% of Energy Sales are to Industrial Customers, including State Government



Prepared by NewGen Strategies & Solutions, LLC

Key Reasons KyMEA was Formed

1. Effective Transition

For the AR Members, to the new power supply program needed beginning in May 2019

2. Economies of Scale

Acting together will be far more cost effective than acting individually

3. Greater Control

The members of KyMEA will exercise significantly greater control over their power supply program than existed as a wholesale customer of KU and than would exist under other alternatives.

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

11 Members Formed KyMEA by Entering an Interlocal Agreement

Enabling Legislation:

Sections 65.210 to 65.300 of the Kentucky Revised Statutes, as amended, known as the Interlocal Cooperation Act

Purposes of the Agency:

The Agency was formed to allow the Members to collaborate effectively to do all things necessary or convenient to serve the current and future electric power and energy requirements of the Members and to provide assistance to the Members related to their electric power and energy utility systems.

KyMEA Governed by a Board of Directors

Article II Interlocal Agreement

1. Each Member appoints a Director and an Alternate Director
 - member of the governing body or
 - senior management employee of the Member or the Member's electrical utility system.
2. All meetings of the Board to be held in compliance with:
 - the provisions of the Kentucky Open Meetings Act, KRS Sections 61.800 through 61.850, and
 - Robert's Rules of Order.
3. Voting
 - Each Director present casts one vote
 - Any Director voting in the minority on a motion can call for reconsideration based on a weighted vote
 - A motion for reconsideration must receive a majority of the weighted votes of the Directors present in order to vacate the original per capita vote.
 - ***Weighted votes can only vacate a per capita vote on a motion – would send the Board “back to the drawing board”***

Interlocal Agreement Provides for Projects and Project Committees - KyMEA has established the AR Project and AR Project Committee

Projects (Article II, Section 4, 5 and 6)

1. The Board can designate a resource or activity to be a “Project.” This allows separate cost responsibility, financing, and decision making if not all Members are participating.
2. The Agency and the Members participating in a Project shall indemnify and hold harmless any Member not participating in the Project.... All costs, fees and expenses incurred by the Agency to indemnify or hold harmless non-participating Members shall be charged solely to the Members participating in the Project.

Project Committees (Article III, Section 4)

1. Members participating in a Project would establish representation provisions and voting procedures.
2. A Project Committee would make most decisions pertaining to a Project.
3. The KMEA Board of Directors will make any decisions with regard to authorization of acquisition of, construction of, participation in, or financing of the Project.

KyMEA's Roles for its 11 Current Members

KyMEA

Scope of Planned KyMEA Services -- Beginning May 2019

Members

Power Supply
Arrangements

24 x 7
Operations

Transmission

Barbourville, Bardwell,
Corbin, Falmouth,
Frankfort Plant Board (FPB),
Madisonville, Paris, and
Providence

Planning and Supply of
Resources to Provide
All Requirements (AR)
Service

Scheduling,
Dispatching, Market
Interactions

Energy Pool

Contracting for
Point to Point
and Network
Services

OMU

*Note: OMU may in the future
transition to All Requirements
Service*

Working with OMU to
Contract for a Natural
Gas Combined Cycle
Resource

Scheduling,
Dispatching, Market
Interactions

Energy Pool

Berea and Benham

Contracting for
Point to Point
and Network
Services

Shading Denotes The "AR Project"

Contrasting the Power Supply Situation for the AR Members Before and After May 1, 2019

Current through April 2019

Large Power Supplier Owned by PPL
AR Members have Little Input to Decisions

KU's Legacy Power Supply Portfolio
Mostly Coal, but Adding Natural Gas. Difficult for
Wholesale Customers to Consider Renewables

Power Supply Costs Driven by
KU's "Cost of Service"
High Return to Stockholders and Income Taxes

Reliable and Secure
Transmission and Distribution

Commencing May 2019

KyMEA Organization
Managed by KyMEA's Members for Their Common
Interests

KyMEA's Member Structured
Power Supply Portfolio
Less Coal and More Flexibility to Consider Renewables

Lower Power Supply Costs
Driven by KyMEA's Actual Costs
Lower cost financing

Reliable and Secure
Transmission and Distribution

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



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

Historical



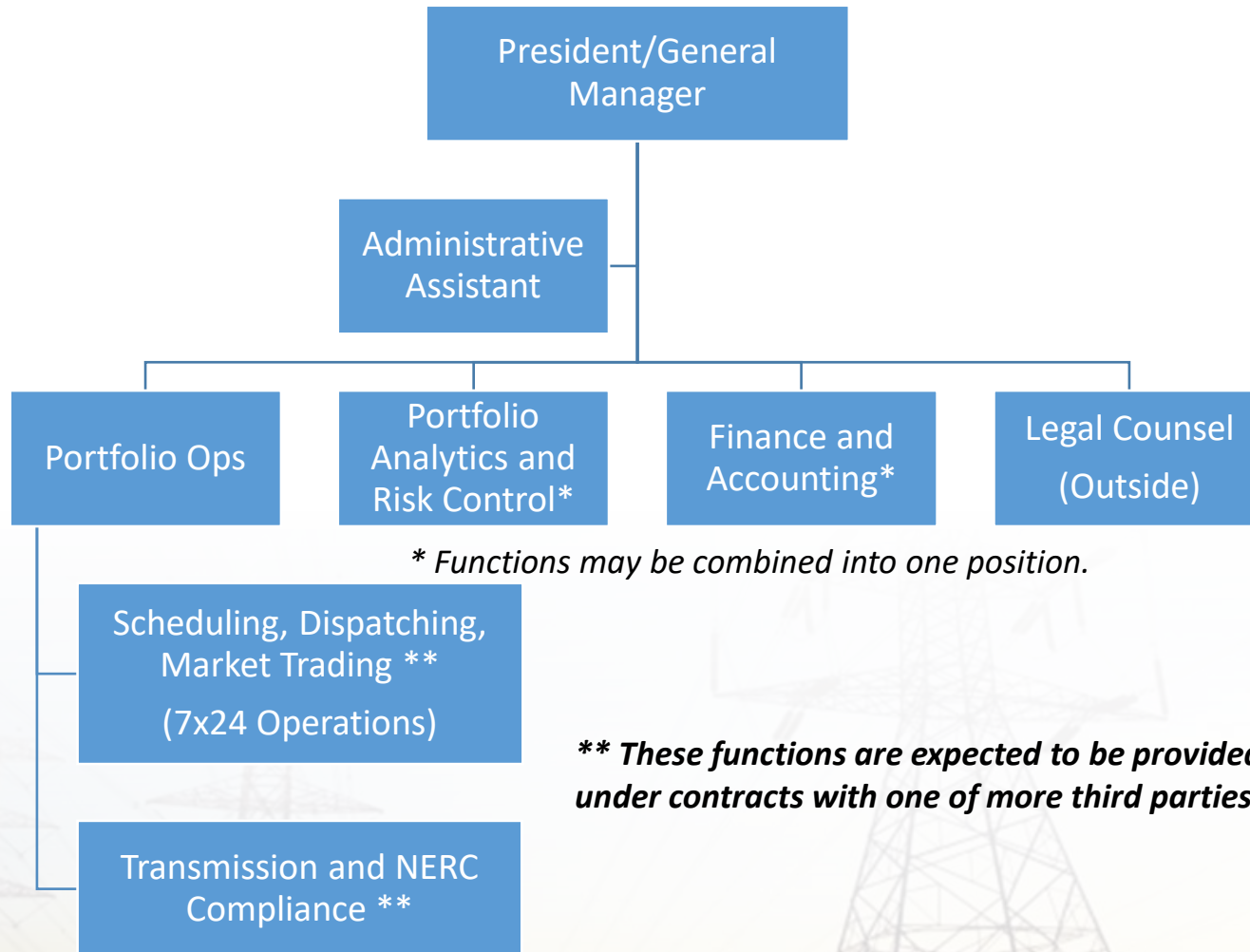
**KU for all AR Members, other than Paris. KU followed by AMP for Paris.

Beginning May 2019



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

-- Additional Organizational Planning is Scheduled for 2017



2. The All Requirements Power Supply Contracts

1. Overview
2. Key Provisions
3. KyMEA to Recover Costs through All Requirements Rates and Charges
4. Member Resources
 - SEPA
 - Paris Diesels
 - Future

The KyMEA- Member 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 KyMEA's 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

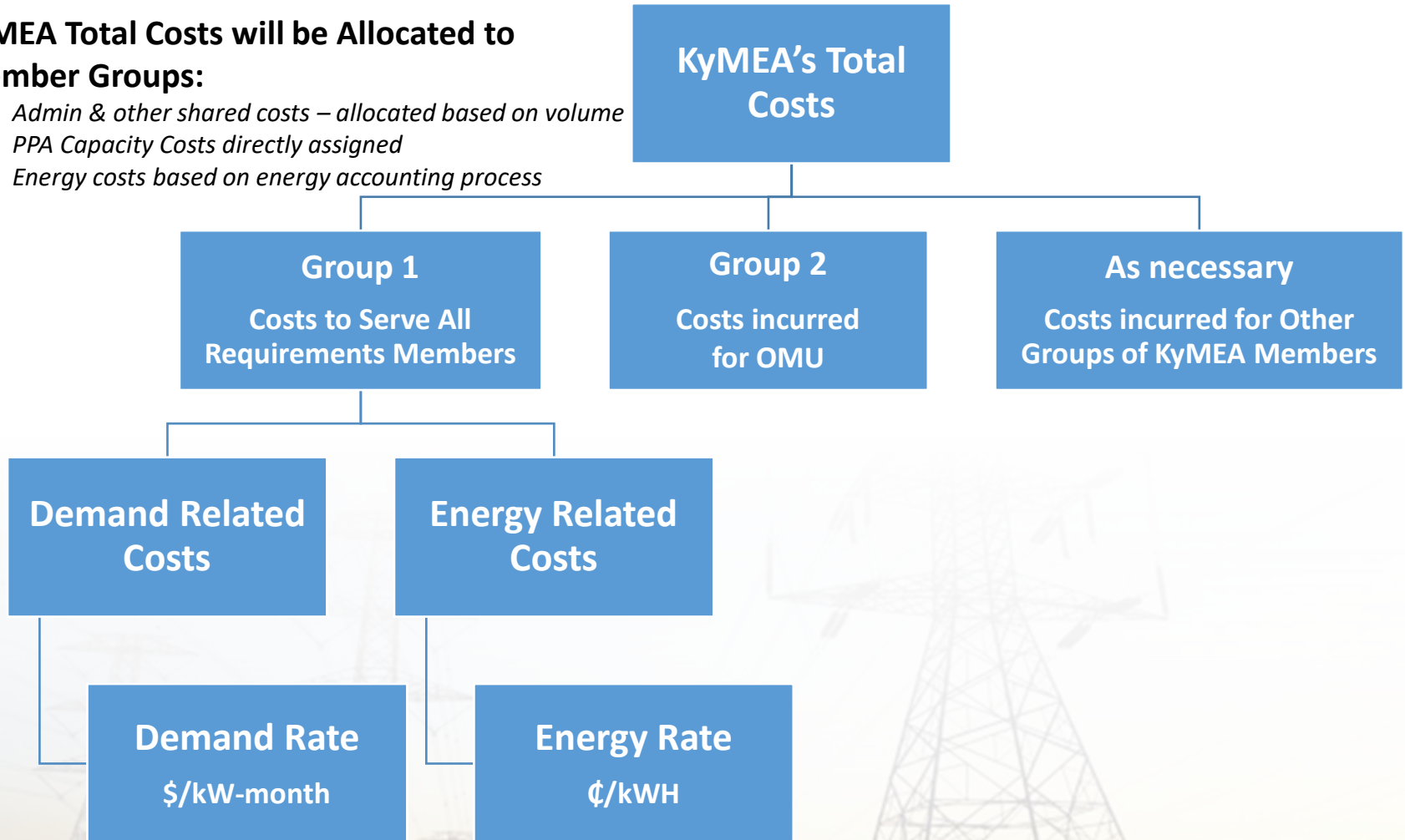
3. Providing a multi-year rate planning horizon for the Members

Fair, Well Established Processes

KyMEA's All Requirements Rates will be established by KyMEA's AR Project Committee and Board

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.

AR Contract Provisions Pertaining to “Local” or Member Owned Resources -- Balance Competing Principles

**Avoid Shifting Costs to
Other Members**



***Key Principles Driving
Pertinent Provisions of
the AR Contract***



**Maximize Value
to the Member**

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.)

At Member's Option:

1. KyMEA will
Contract to Use and
Provide Value-Based
Credits to Member



Credit to Member

Based on
**100% of the Value
Realized by KyMEA**

2. KyMEA will
Contract to Market
Output on Behalf of
Member



Credit to Member

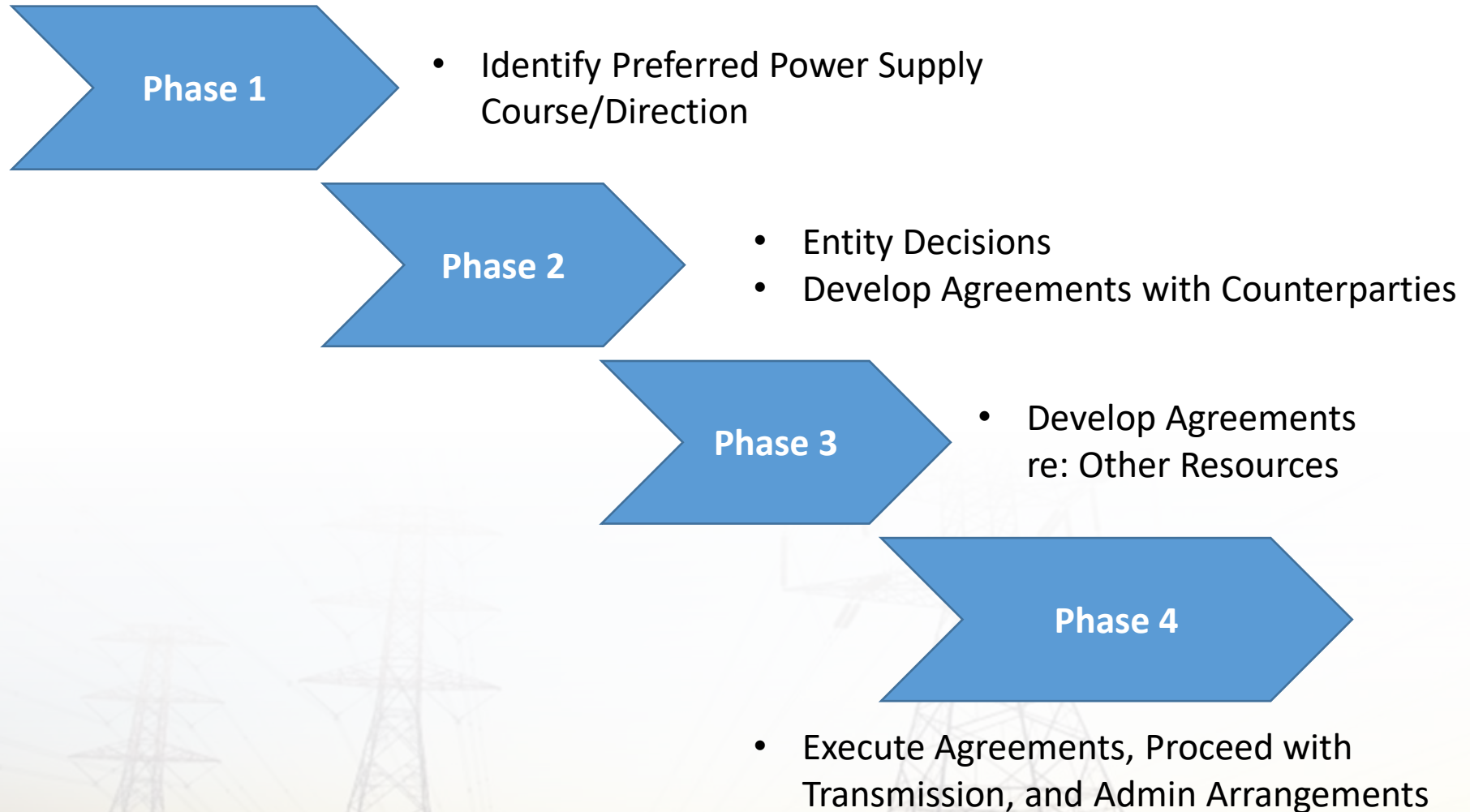
Based on
**100 % of Net
Revenue Received**

3. Member can
Market Output
through Another
Party

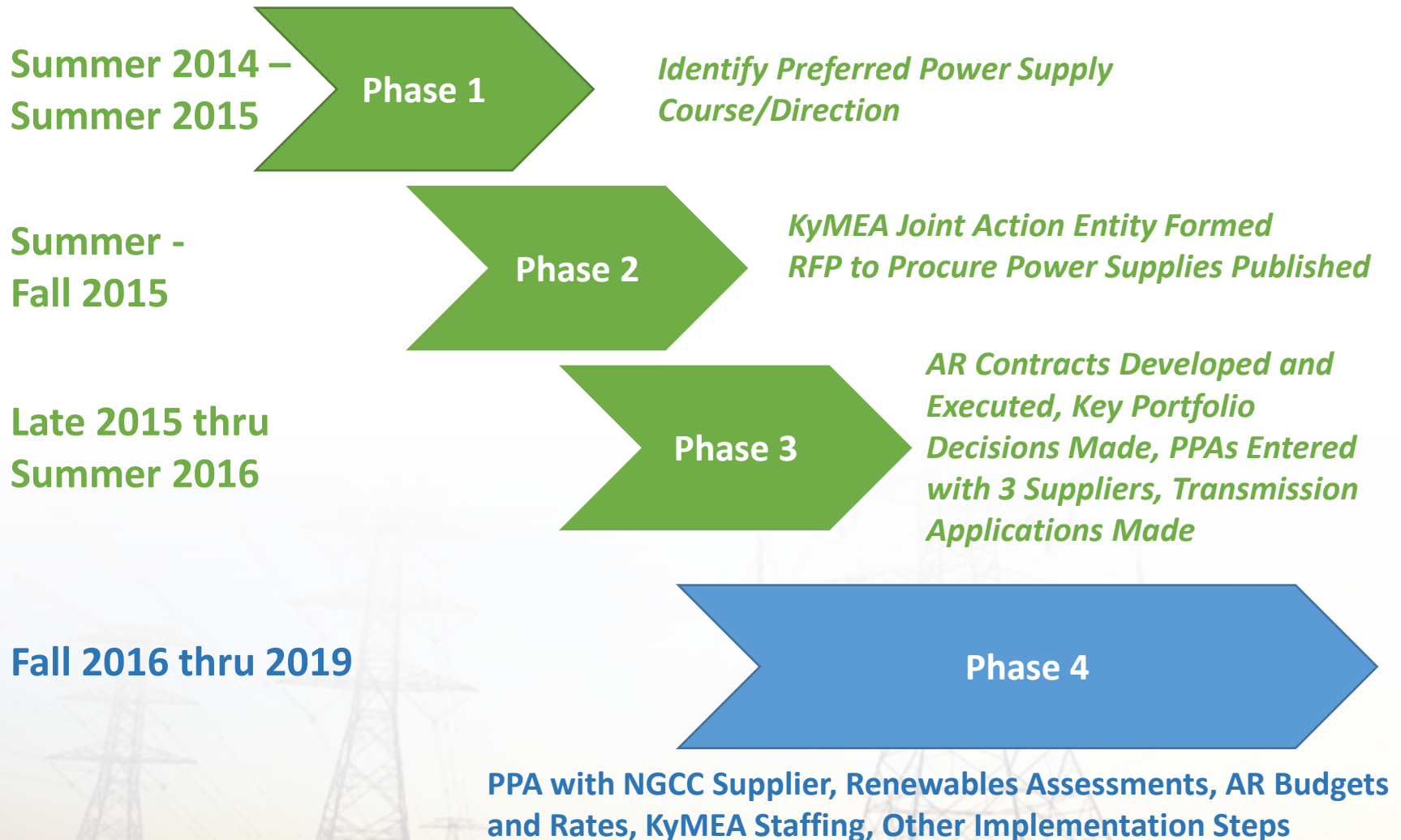
3. KyMEA's Initial Power Supply Portfolio

1. Resource Selection Process
2. Results and Status of Planning
3. Projected Costs and Benefits
 - AR Power Supply
 - SEPA

Action Plan Established in Summer 2014



Status of Action Plan



The Goal has been – Provide Members Competitive, More Affordable and Environmentally Responsible 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.***

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, in 2016, KyMEA conducted a study of renewable resource options that could be implemented by May 2019 and is conducting an RFP process to consider renewable resources further.*

Process – Three RFPs – So Far

Issue Date

September 2015
RFP

- **5 Categories of Proposals Requested**

- *Coal based Resources*
- *Natural Gas Combined Cycle*
- *LD Energy Products*
- *Natural Gas Combustion Turbine*
- *Other Peaking / Reserve Resources.*

April 2016
RFP

- **Requested Peaking Proposals Only**

March 2017 RFP

- **Requests Proposals for Renewable Resources**

- *250 kW to 50 MW*
- *Preference for Solar and Wind*
- *Delivered to MISO Zone 6, LGE/KU, or a Member's distribution System*

Overview of Proposals Received in Response to Sept 2015 and April 2016 RFPs

34 Proposals from 13 Suppliers, Some with Multiple Variations

Base Load and Intermediate Resources

Coal

- 6 Proposals
- Terms Offered:
 - 3, 10, or 10 with option to extend to 20 yrs.
- Unit, System or Reserved Power

Del. Point - LGE/KU & MISO

Combined Cycle – Efficient Natural Gas Fueled Resource

- New Large Plant
- 2 CTs on 1 HRSG
- Terms Offered: 10 – 20 yrs.

Del. Point - MISO

LD (Cost of cover)

- 7x24 Strips
- 5x16 Strips
- Energy Only – Must take
- Price fixed over term
- 12 Proposals, + Variations
- Terms Offered: 3 to 10 years

Del. Point - MISO & PJM

Peaking Resources

Sept 2015 RFP

- 3 CT based Proposals & 1 NGCC Duct Firing
- Heat Rate Call Options - LD
- Hydro Peaking Resource (Letter of Interest)

April 2016 RFP

- 7 Proposals from 4 Potential Suppliers

Del. Point - LGE/KU & MISO

All Requirements Service

- Load Matching LD for AR Members (3 or 10 years)
- 110 MW Cost-based (May 2019 thru Dec 2021)

Del. Point - LGE/KU & MISO

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

Initial Two RFPs – Identified 4 Potential 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) Negotiations of the PPA have continued since Summer 2016 working with other interested parties (HenderSun Interest Group). Transaction would begin June 1, 2022. KyMEA may issue a new RFP.

The PPAs Provide Significant Flexibility for Service of AR Members' Loads -- 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 - Coal 10 Year ⁽¹⁾	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 –Coal 3 Year	100 MW	Initial Nomination	NA	NA
Paducah – Natural Gas Simple Cycle CT 10 Year ⁽¹⁾	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
Natural Gas Fired Combined Cycle 10 to 20 Year	75-100 MW - for AR Members ⁽²⁾	NA (Purchase would begin June 2022)	To be Determined	To be Determined

(1) Term extendable at KyMEA's option.

(2) OMU also expects to purchase approximately 100-150 MW directly from the Seller or through KyMEA.

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

There is a High Probability of Competitive Advantage

- Slides that follow 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, it would be a mistake to focus on a single percentage or dollar amount of difference.

Considering the structure of KyMEA's portfolio and the various analyses we have performed, nFront Consulting has 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.***

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 CO₂ legislation than KU's system of coal units.

Key Conclusions: Reasonable and Flexible Capacity Portfolio in Relation to KyMEA's AR Members Projected Requirements

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 or lower than now forecast; and
- ✓ 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

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

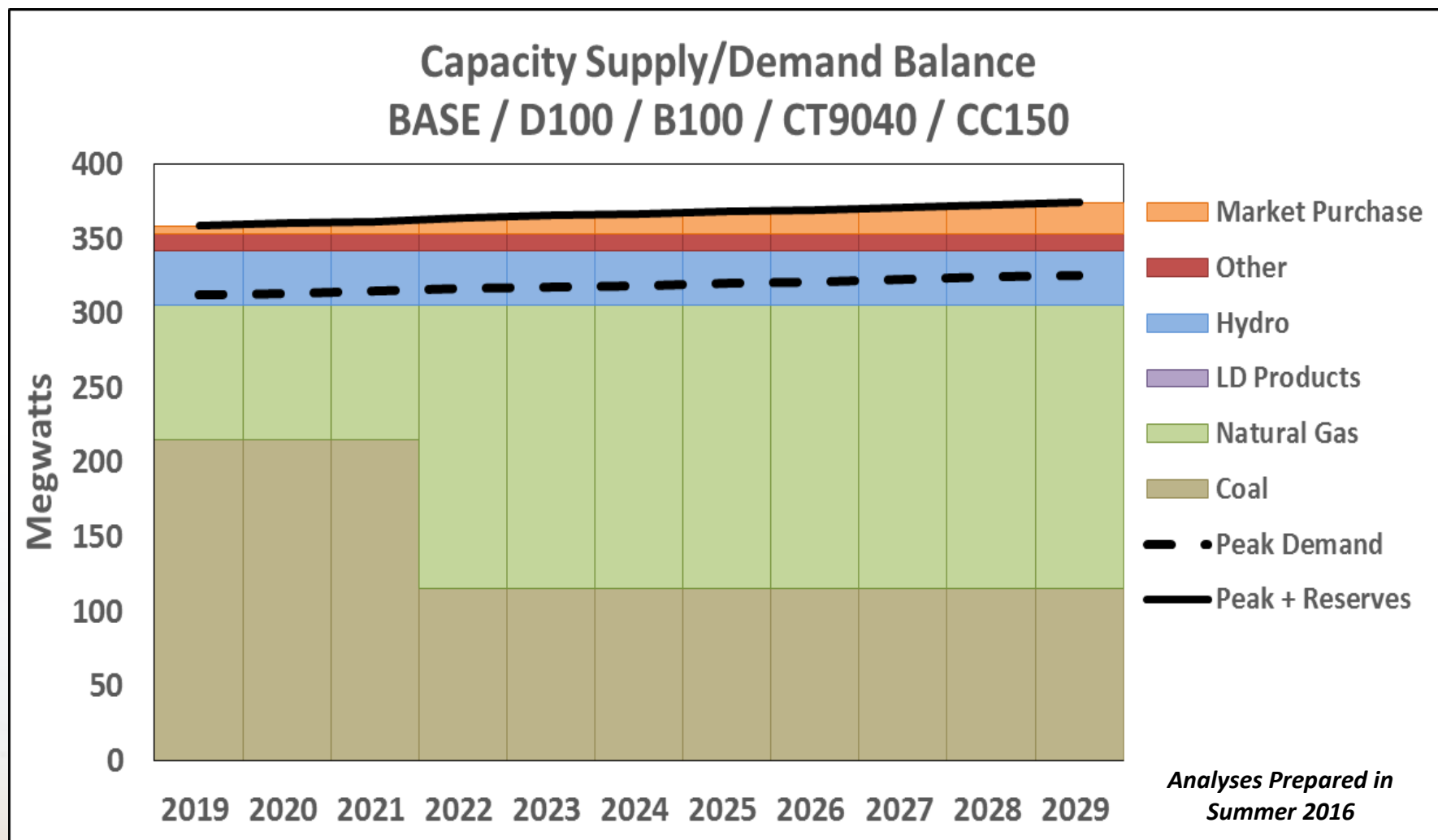
Because the PPAs include day ahead and intraday scheduling flexibility, and no must-take requirements or limits on remarketing capacity and energy, KyMEA is well positioned to accept and utilize:

- 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 higher costs thereof, KyMEA has the flexibility to do so and reduce purchases under the PPAs.

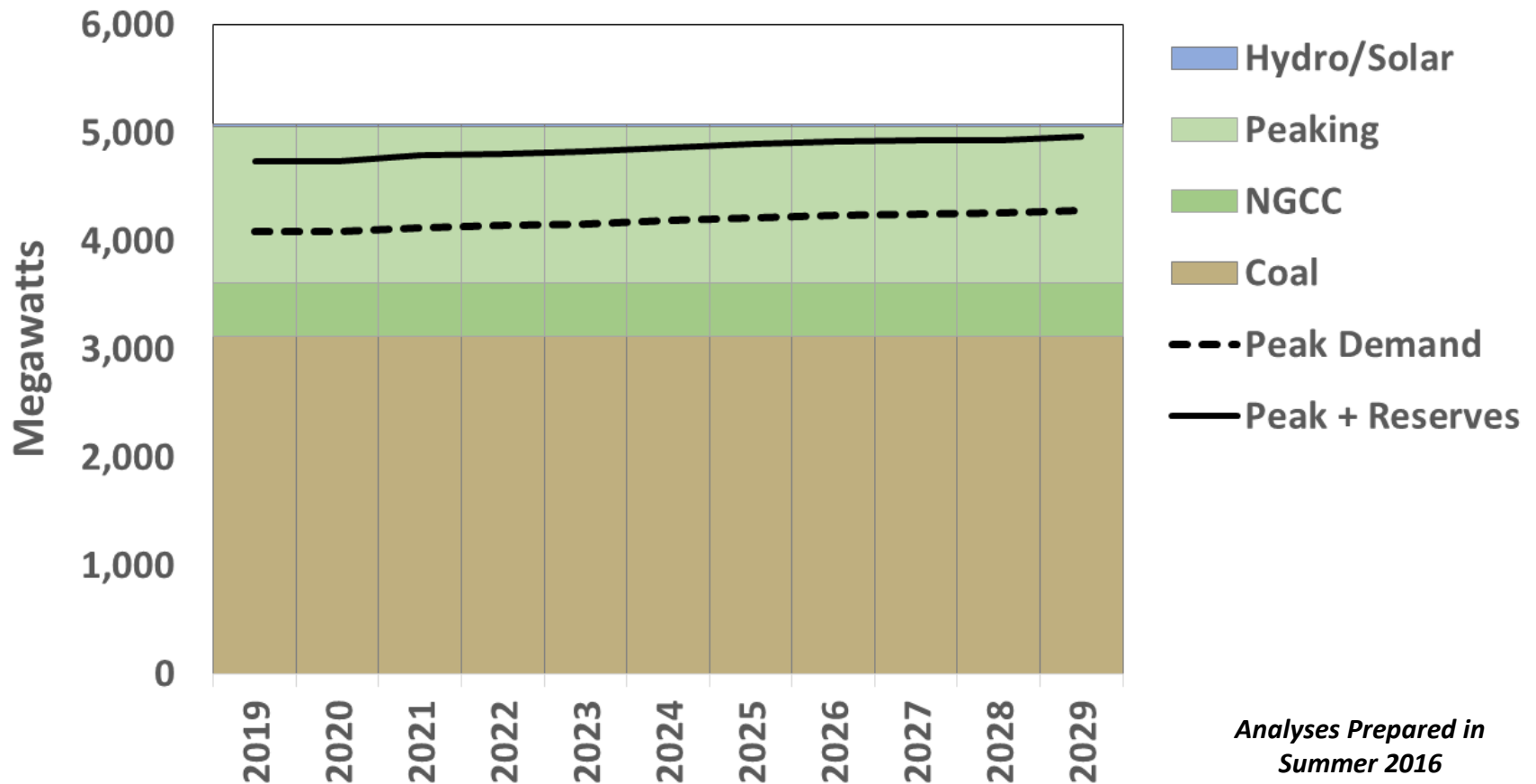
Illustration of Base Case KyMEA All Requirements Power Supply Portfolio



By Contrast, KU's Portfolio is Projected to Remain Heavily Dependent on Coal Capacity through the 2020s

– with a Very Minor Renewable Component

Projected KU Supply and Demand



Coal Resource Related Risks

The coal related risks have been well managed in the PPAs and are expected to be less than had the Members remained wholesale customers of KU.

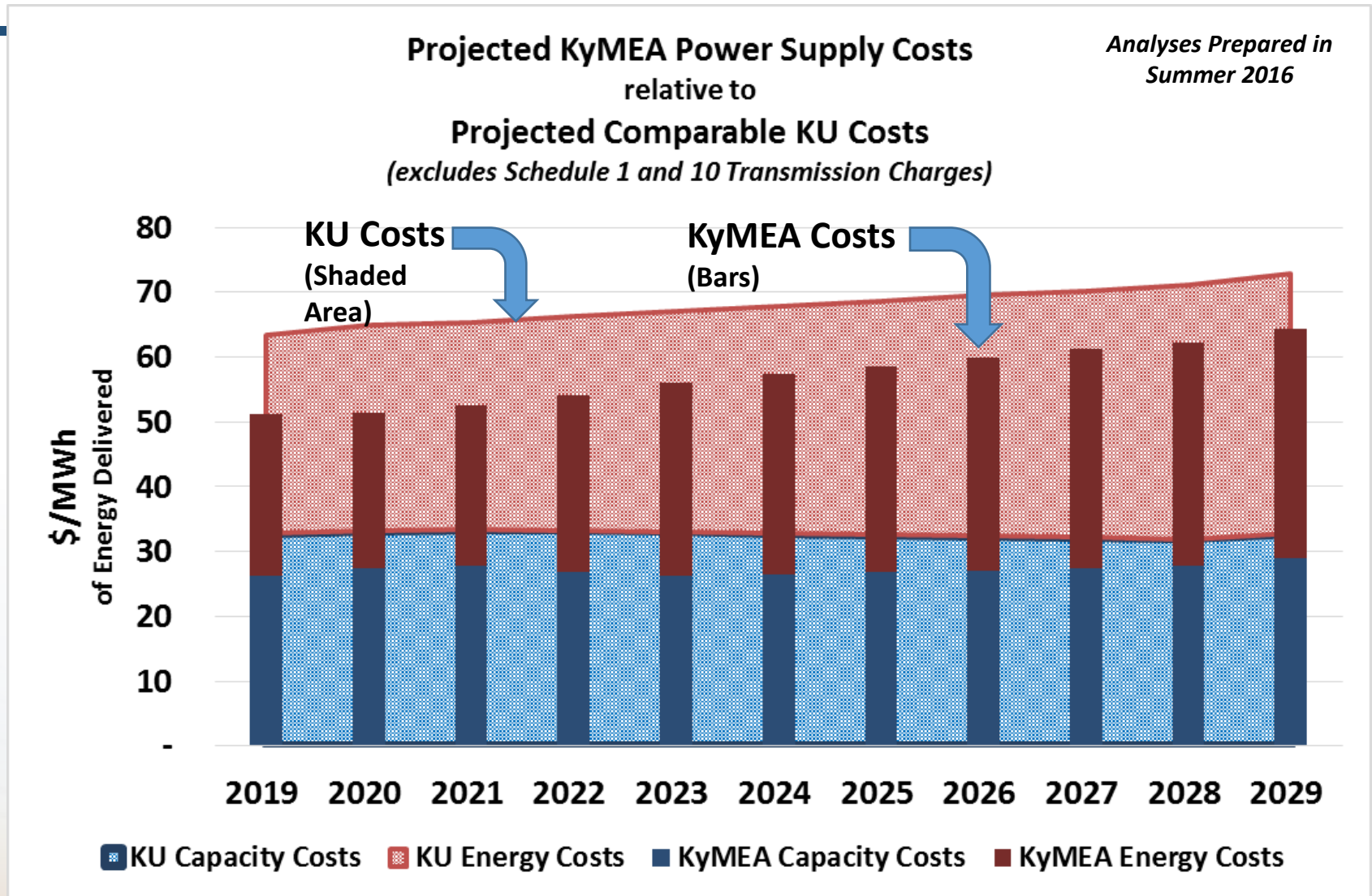
1. Pricing in the PPA with IPMC (Dynergy) will not increase:

- a. Because of the costs to IMPC of complying with environmental rules mentioned by Synapse; or
- b. In the event other new environmental regulations are promulgated.

2. While the terms of the BREC agreement are confidential:

- a. Big Rivers is already in compliance with all existing regulations regarding management of coal ash, wastewater, and other pollutants and does not anticipate any associated additional costs which could impact the KyMEA PPA; and
- b. The Clean Power Plan requires states to reduce CO₂ emissions by 32%. The idling of BREC's Coleman Station has reduced the carbon footprint of Big Rivers by 33%. Big Rivers has the flexibility to either restart Coleman or utilize it as one of its CPP compliance options. In that regard, it is much better positioned than many other generators.

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

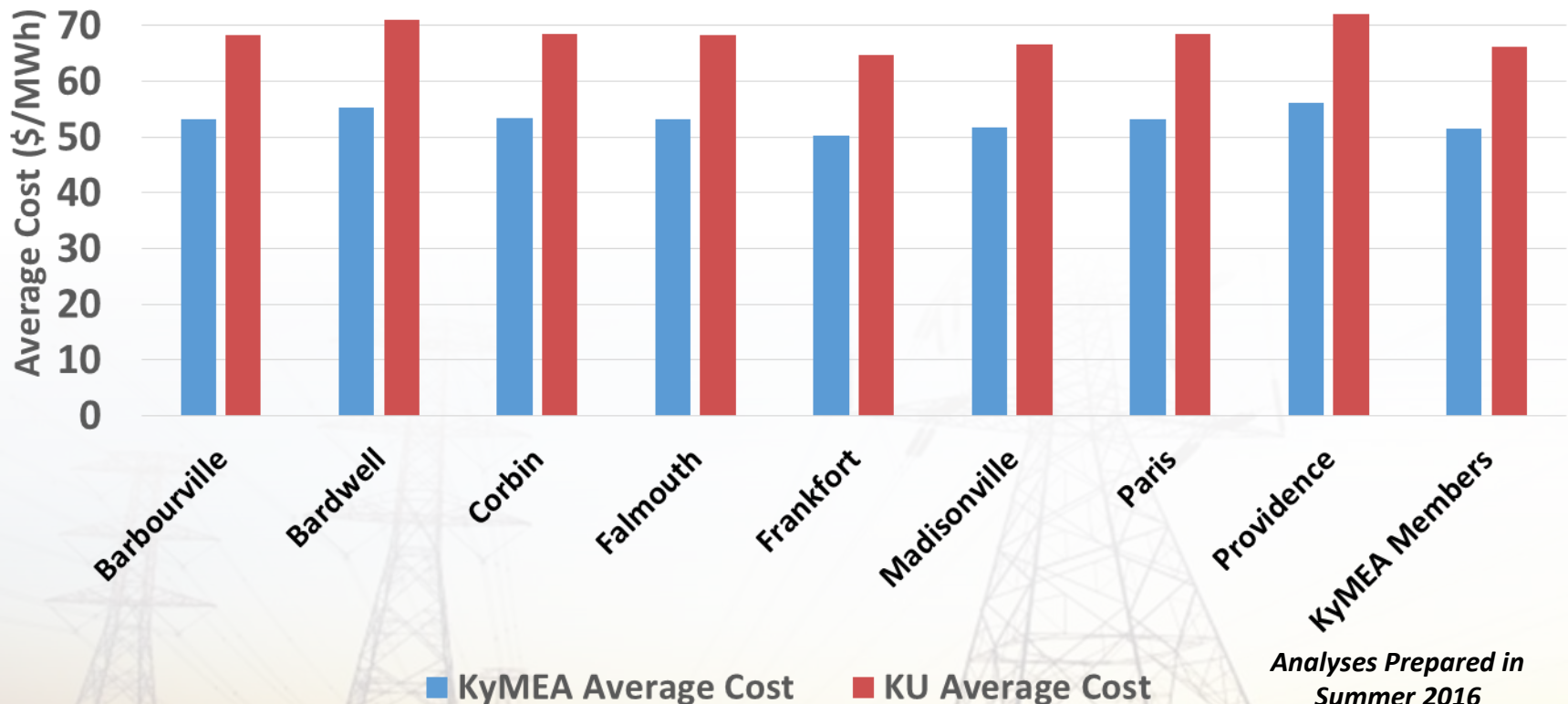


The KyMEA Members are Projected to Share Proportionately in the Projected Competitive Advantage relative to KU – One Scenario

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.

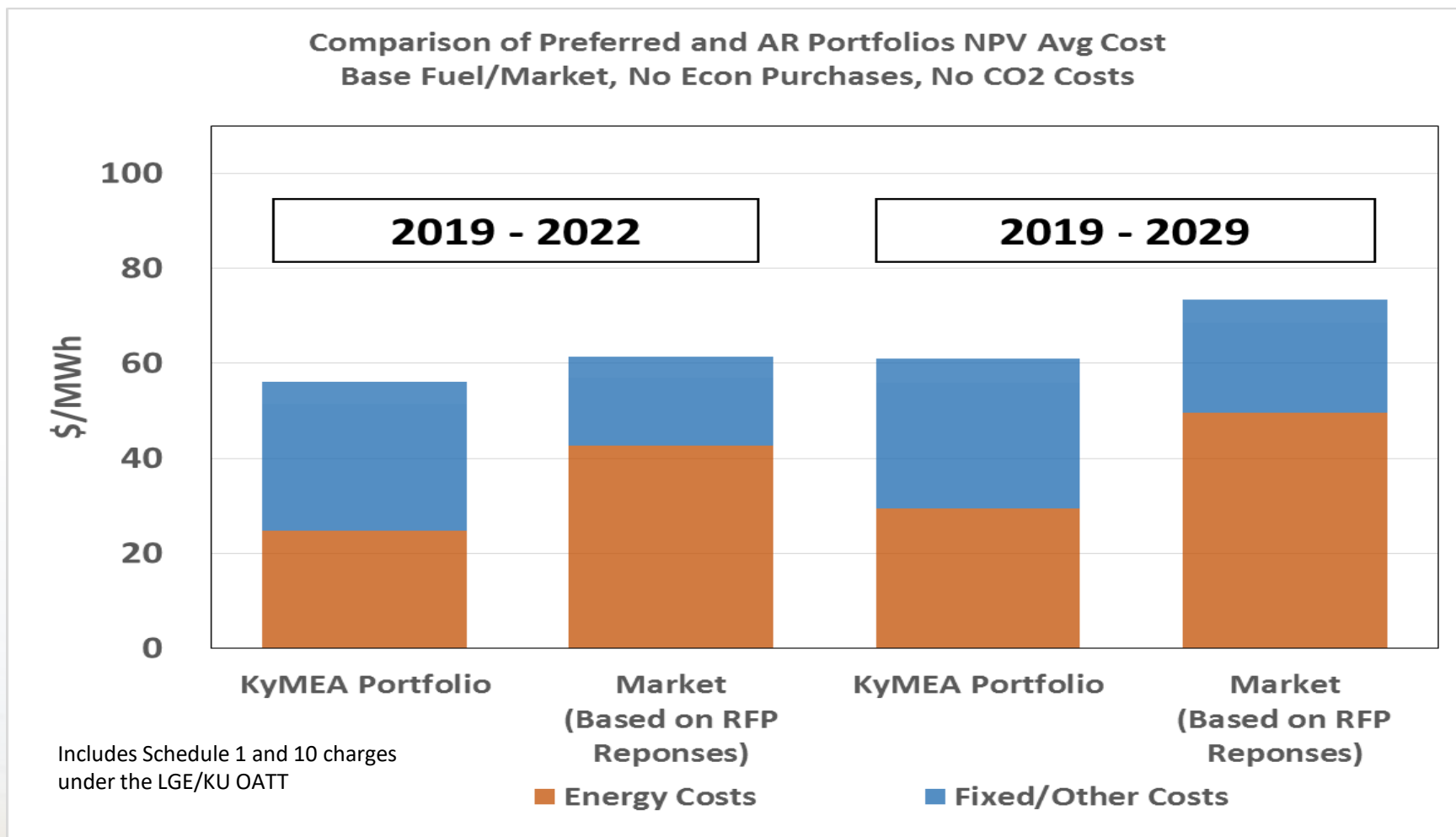
Projected Average Costs for Delivered Wholesale Power KyMEA vs. KU

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

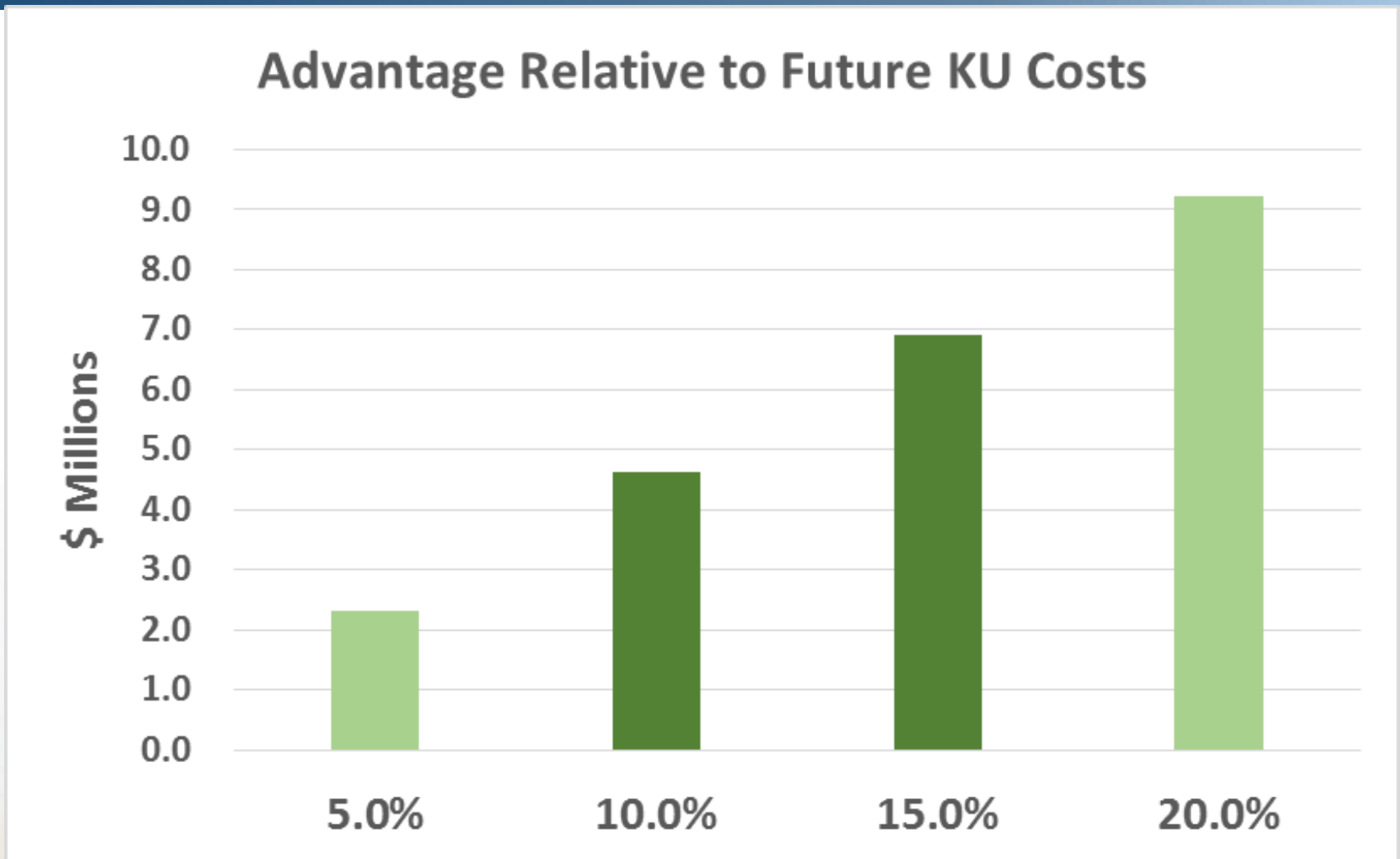


*Analyses Prepared in
Summer 2016*

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



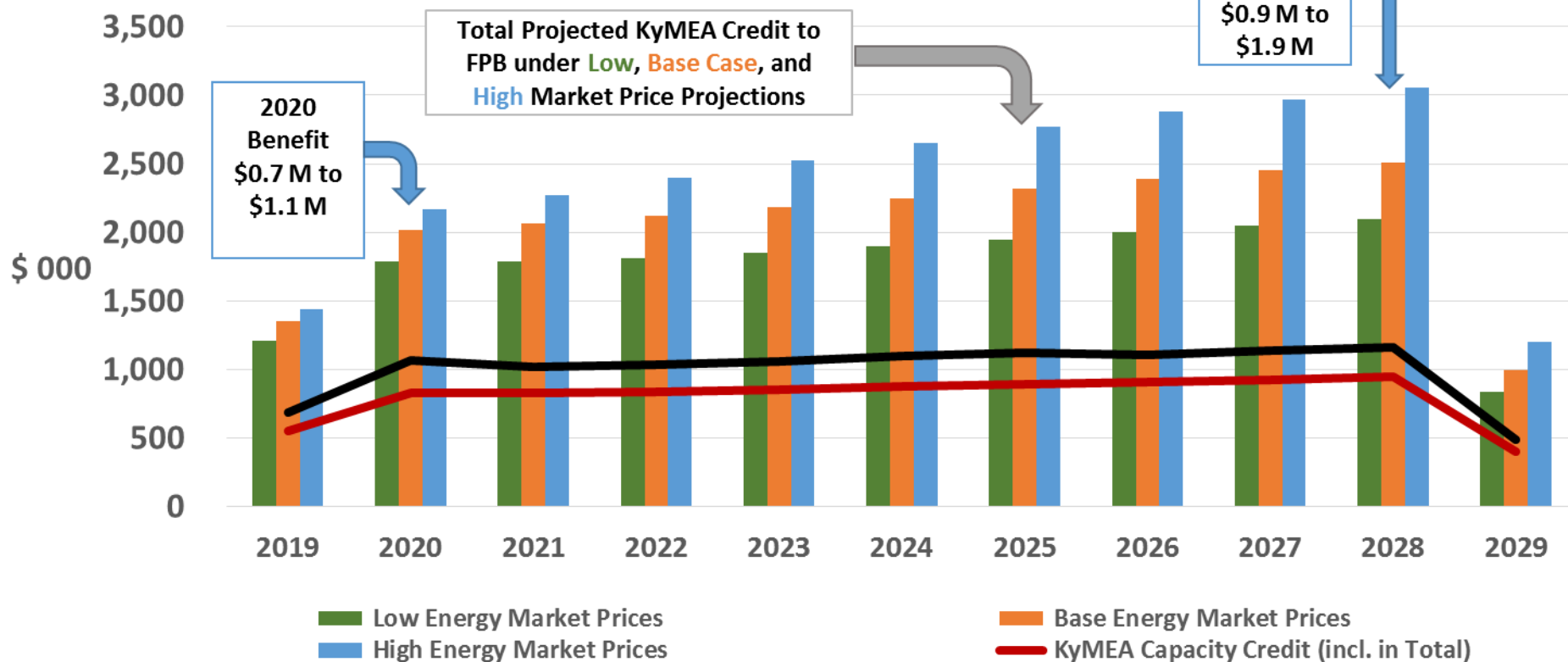
Potential *Annual* Benefits of Lower Projected Future Power Supply Costs -- Very Significant for FPB and the Frankfort Community



SEPA Benefits Under Option 1:

Total KyMEA Credits for SEPA Entitlements are Projected to Result in Significant Net Benefit to the Member -- KyMEA Fixed Capacity Credits Alone Would Cover Most Projected SEPA Costs

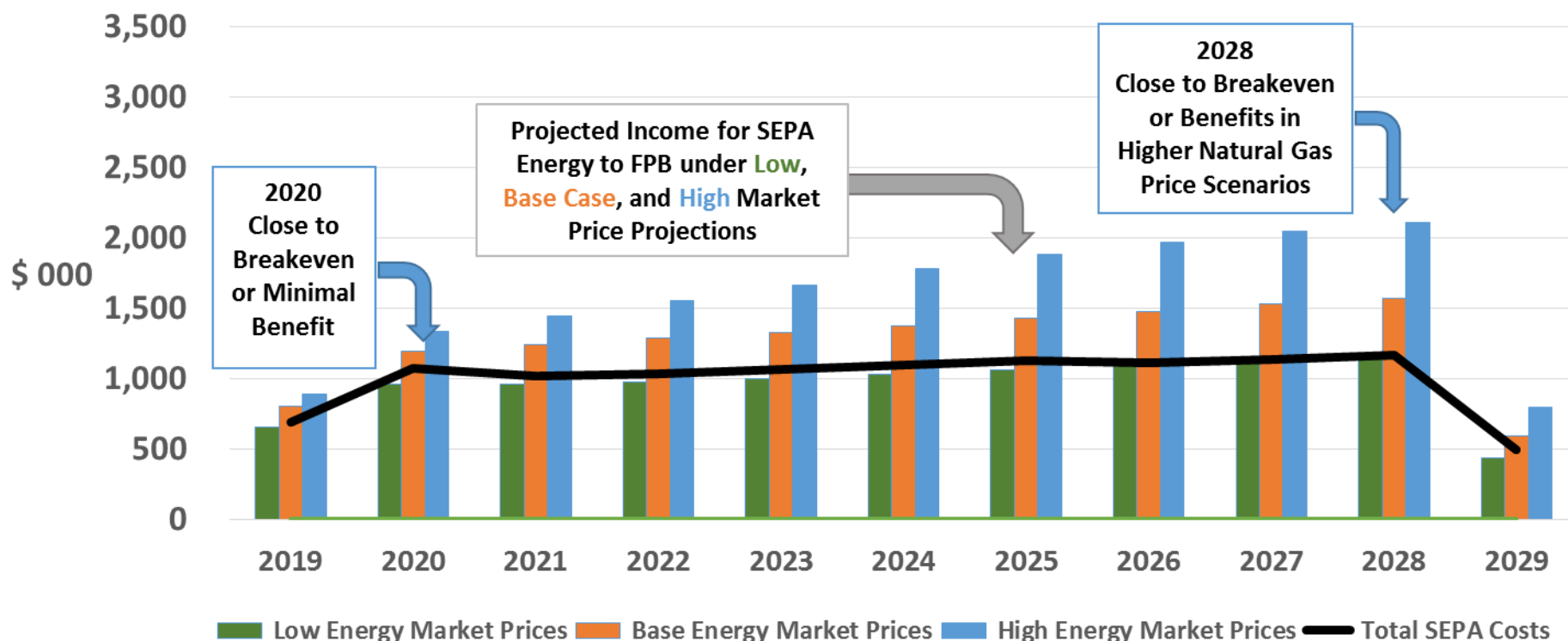
Option 1: Projected KyMEA Credits to FPB for SEPA Capacity and Energy
versus Projected Costs of SEPA
- For FPB's 15.6 MW of SEPA Entitlement



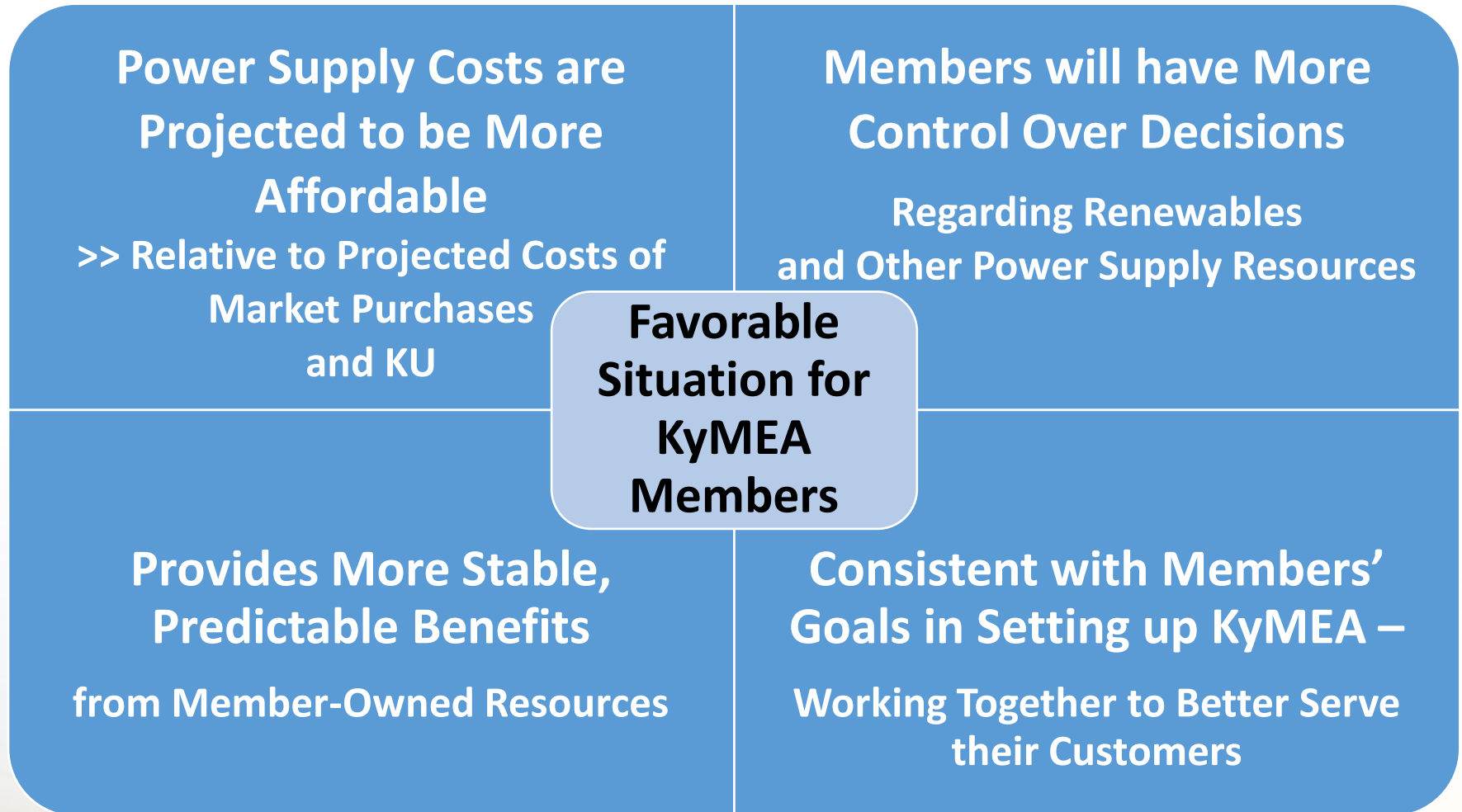
SEPA Results Under Options 2 and 3:

Credits for to Members for SEPA Entitlements are Projected to Much Lower than under Option 1

Options 2 or 3: Projected Income to FPB for SEPA Energy
versus Projected Costs of SEPA
- For FPB's 15.6 MW of SEPA Entitlement



Overall Conclusions: The Proposed AR Project Offers Significant Advantages



4. Member Financial Info/Credit Strength

1. Relative Sizes of the Members
2. Financial Information
3. Credit Status of Members

Relative Sizes of the KyMEA Members

Based on FYE June 2016 Total Energy Requirements (at the Transmission Delivery Level)

		Group 1			Group 2		Group 3		Group 4	
	Ordered Largest to Smallest	AR Project			All Power Supply		Transmission		Total KyMEA	
		8 AR Project Members			AR Project Members + OMU		AR Project Members + Benham+ Berea		All KyMEA Members	
		MWh	%	Cum %	MWh	%	MWh	%	MWh	%
1	OMU	-	-	-	834,067	39.24%	-	-	834,067	36.96%
2	Frankfort	703,181	54.43%	54.43%	703,181	33.08%	703,181	49.46%	703,181	31.17%
3	Madisonville	300,072	23.23%	77.66%	300,072	14.11%	300,072	21.10%	300,072	13.30%
4	Berea	-	-	-	-	-	124,029	8.72%	124,029	5.50%
5	Barbourville	89,945	6.96%	84.62%	89,945	4.23%	89,945	6.32%	89,945	3.99%
6	Corbin	81,261	6.29%	90.91%	81,261	3.82%	81,261	5.71%	81,261	3.60%
7	Paris	59,563	4.61%	95.52%	59,563	2.80%	59,563	4.19%	59,563	2.64%
8	Providence	29,765	2.30%	97.82%	29,765	1.40%	29,765	2.09%	29,765	1.32%
9	Falmouth	19,358	1.50%	99.32%	19,358	0.91%	19,358	1.36%	19,358	0.86%
10	Bardwell	8,817	0.68%	100.00%	8,817	0.41%	8,817	0.62%	8,817	0.39%
11	Benham	-	-	-	-	-	6,096	0.43%	6,096	0.27%
	TOTALS	1,291,962	100.00%		2,126,029	100.00%	1,422,087	100.00%	2,256,154	100.00%

Financial Summary of Larger Members

	Frankfort		Madisonville		Barbourville		Corbin		Paris	
Customers	21,000		9,000		3,000		4,100		Est. 5,000	
Population	48,000		19,500		3,200		7,000		8,500	
MwH Sales	703,181	54%	300,072	23%	89,945	7%	81,261	6%	59,563	5%
Governed	5 Board Members appointed by Mayor		Dept of City. Mayor and 6 Councilmen.		Mayor appoints Commission, Council confirms		Mayor appoints Commission, Council confirms		Dept of City. Mayor + 4 Commissioners.	
Elec Revenues	55,995		25,652				6,593		5,928	
Other Revs	9,894		-				4,846		5,202	
System Revs	65,889		25,652				11,439		11,130	
Elec Expense	52,576		20,931				5,380		5,895	
Other Expense	8,937		-				5,194		5,165	
System Expense	61,513		20,931				10,574		11,060	
Net Revenues	4,376		4,721				865		70	
OTHER Revenues	2,833		29						719	
Add-Back Interest	414		-				50		113	
Depreciation	3,466		811				1,488		953	
Less Transfers	(120)		(2,850)				(731)			
Cash Flow for DS	10,969		2,711				1,672		1,855	
Total DS	3,123		-				164		663	
Coverage	3.51 X		No Debt		NA		10.20 X		2.80 X	
Cov. WO Other	2.61 X		No Debt		NA		NA		1.71 X	
Ave \$/MwH est.	\$ 80.00		\$ 85.00				\$ 81.00		\$ 100.00	

Large Customers of Largest Members

Frankfort Top Customers				
	kWh Billed	% of Total	Revenue Billed	% of Total
State of Kentucky	85,629,722	12.27%	\$ 5,667,572	10.28%
	39,789,536	5.70%	\$ 2,576,005	4.67%
	35,634,930	5.11%	\$ 2,244,552	4.07%
	29,573,220	4.24%	\$ 1,821,285	3.30%
Overall System Total	698,000,000		\$ 55,130,000	
Madisonville Top Customers				
			Revenue Billed	% of Total
GE Aircraft Engines			\$ 2,016,991	8.05%
Baptist Health			\$ 1,981,000	7.90%
Ahlstron Filtration			\$ 1,389,000	5.54%
IAC Madisonville			\$ 1,354,000	5.40%
Overall System Total			\$ 25,062,000	

Frankfort Plant Board

Description of Utility

The Frankfort Plant Board (“FPB”), is governed by a five-member board appointed by the Mayor and approved by the commissioners. The Board is an independent entity under Kentucky Revised Statutes 96.172 through 96.188, and not a component unit of the City.

The Board is accounted for as an enterprise fund. The FPB is a combined utility with electric, water and telecom. Each is budgeted and accounted for with rates set for each to cover expenses, capital projects, service debt and provide cash reserves. The electric and water divisions are legally connected by the Kentucky Revised Statutes, and electric and water revenues are pledged for the Board’s Bonds. FPB is rated A by S&P.

Customer Base

The electric customer base is moderately concentrated with the top five composing roughly 25% of revenue. The State is the largest customer. At 6/30, 2016 FPB had 16,160 residential, 3,998 commercial, 297 large power, and 198 municipal customers.

Rate Setting

The Board has charge of the supervision, management and control of the operation, maintenance and extension of the electric and water plan. The Board sets rates for service rendered. Rates are not under the oversight of the Kentucky Public Service Commission, nor do they require approval from another entity.

FPB’s wholesale provider, Kentucky Utilities (KU), informs FPB of new rates by May 1st of each year based on the FERC approved rate. FPB passes these rates on to customers in order to maintain a solid financial position.

FPB’s tariff allows for a Power Cost Adjustment (PCA) Charge. FPB includes the PCA charge on customer bills to recover the fuel cost adjustment charged to FPB by KU.

FPB does not pay a PILOT to the City. FPB has agreed to pay \$109,000 per year for the use of City facilities. This was effective January 1, 2015 and will increase the fee 10% after each five-year period.

Frankfort Plant Board Financial Information

	<u>6/30/2016</u>	<u>6/30/2015</u>	<u>6/30/2014</u>		<u>6/30/2016</u>	<u>6/30/2015</u>	<u>6/30/2014</u>
Electric Revenues	55,995,276	52,593,396	55,499,203	Net Rev before Contributions	7,238,842	16,011	2,258,468
Water Revenues	<u>9,894,404</u>	<u>9,356,932</u>	<u>9,437,234</u>	Plus Depreciation	3,465,941	3,230,763	3,329,455
Total Revenues	65,889,680	61,950,328	64,936,437	Plus Interest Expense	413,967	309,475	210,222
				Less Other	<u>-30,304</u>	<u>-27,415</u>	<u>-54,312</u>
Electric Power Costs	42,703,456	44,535,869	45,891,757	Funds for DS	11,088,446	3,528,834	5,743,833
Electric Operating Costs	2,875,907	2,787,852	2,734,888				
Water Operating Costs	2,832,900	2,651,414	2,725,880	Max Parity DS	2,573,978	2,573,978	1,656,706
Other Costs	<u>13,101,700</u>	<u>12,413,016</u>	<u>11,549,894</u>	DS Coverage	4.31 X	1.37 X	3.47 X
Total Operating Expenses	61,513,963	62,388,151	62,902,419	DS Coverage wo/ Settlement	3.20 X		
Net Operating Revenues	4,375,717	-437,823	2,034,018	Max Total DS	3,112,374	2,958,363	2,044,285
				DS Coverage	3.56 X	1.19 X	2.81 X
Non Operating Revenues				DS Coverage wo/ Settlement	2.65 X		
Rate Case Settlement	2,853,002						
Other Non Operating Revs	<u>10,123</u>	<u>453,834</u>	<u>224,450</u>				
Total Other Revenues	2,863,125	453,834	224,450				

Frankfort Plant Board Rate Structure and Rate Comparison

Electric Rate Comparison Tool							
Enter monthly kWh	1200						
	BGMU	OMU	Owen Electric	Shelby Energy	KU 02/1/2017	Bluegrass Energy	FPB New 8/1/16
Updated	5/13/2016	5/13/2016	5/13/2016	5/13/2016	12/7/2016	11/28/2016	11/28/2016
Customer Service Charge	\$17.41	\$10.00	\$20.00	\$10.14	\$22.00	\$14.00	\$10.75
Rate per kwh	\$0.06315	\$0.06740	\$0.08491	\$0.08861	\$0.08523	\$0.08731	\$0.08899
Demand Side Management	\$0.00000	\$0.00000	\$0.00000	\$0.00000	\$0.00253	\$0.00000	\$0.00000
Enviromental Cost Recovery ²	\$0.00000	\$0.01909	\$11.57	\$9.09	\$2.11	\$12.46	\$0.00000
Home energy assistance	\$0.00	\$0.00	\$0.00	\$0.00	\$0.25	\$0.00	\$0.00
Fuel Adjustment or PCA	\$0.01721	\$0.03070	-\$0.00432	-\$0.00289	-\$0.00428	-\$0.00307	-\$0.00256
Bill Based on monthly kWh Usage	\$113.84	\$150.63	\$128.27	\$122.09	\$124.54	\$127.55	\$114.47
True Cost Per kWh ¹	\$0.09487	\$0.12552	\$0.10689	\$0.10174	\$0.10378	\$0.10629	\$0.09539
Percent Increase Over FPB New	-0.55%	31.59%	12.06%	6.66%	8.80%	11.43%	
Notes:							
1) True cost per kWh is based on the most recently available billing data. School, state and federal taxes are not included.							
2) Environmental cost may be applied as a cost per kWh (similar to fuel adjustment) or as a percentage of the total energy							

Madisonville Municipal Utilities

Description of Utility

Madisonville Municipal Utilities is governed by a Mayor-Council type government which is the most prevalent form of city government in the US and in Kentucky. The city council has six members serving two-year terms and has regular meetings on the first and third Monday night of each month.

Madisonville Municipal Utilities offers electric, water and sewer, and sanitation services to customers within and near the city limits of Madisonville. Electric, water and sewer, and sanitation operations are organized as departments of the City. Each utility is budgeted annually and accounted for through major proprietary funds including revenues, expenses, capital projects, debt service, and cash reserves.

Customer Base

The electric customer base includes approximately 7,000 residential, 1,400 commercial, and 20 industrial customers. The 20 industrial accounts represent about 30% of total revenue. Residential and commercial accounts represent 30% and 40% respectively.

Rate Setting

The city council oversees the supervision, management and control of the operation, maintenance and extension of the electric utility and water and sewer utilities. Rates are established by city ordinance. Rates are not under the oversight of the Kentucky Public Service Commission, nor do they require approval from another entity.

Madisonville's wholesale power provider, Kentucky Utilities (KU), informs Madisonville of new rates by May 1st of each year based on the FERC approved rate. Madisonville passes these rates on to customers in order to maintain a solid financial position.

Madisonville's rate ordinance allows for a Power Cost Adjustment (PCA) Charge. Madisonville includes the PCA charge on customer bills to recover any change in the cost of wholesale power charged to Madisonville by KU.

Conclusions and Q&A