KENTUCKY MUNICIPAL ENERGY AGENCY

Board Packet

April 23, 2020

APRIL 23, 2020
KYMEA BROC MEETING VIA VIDEO TELECONFERENCE

As a result of the state of emergency declared by the President of the United States, Governor of Kentucky, and Mayor of the City of Louisville due to the global COVID-19 pandemic, and in accordance with recommended and mandated precautions related thereto and Kentucky Opinion of the Attorney General 20-05, the following Meeting Notice is issued:

The Regular Meeting of the KYMEA Board Risk Oversight Committee ("BROC") for Thursday, April 23, 2020, at 8:30 a.m. ET, in the KYMEA Conference Room, 1700 Eastpoint Parkway, Suite 220, Louisville, Kentucky will be held per KRS 61.826, a video teleconference meeting. One or more members of the BROC will participate via Webex or a similar video teleconferencing system. The primary location will be in the KYMEA Conference Room, 1700 Eastpoint Parkway, Suite 220, Louisville, Kentucky.

Per Kentucky Attorney General Opinion 20-05, public attendance may be limited at this meeting due to the highly contagious nature of COVID-19, and it is not feasible for KYMEA to provide a large central physical location for public viewing with adequate spacing for a large public gathering. Physical attendance at the meeting will be limited to a small group to comply with social distancing declarations of government officials.

If you would like to attend the April 23rd BROC video meeting please contact mhixon@kymea.org or call at (502) 693-5179.

NOTICE
APRIL 23, 2020
KYMEA BOARD AND THE AR PROJECT COMMITTEEE
VIA VIDEO TELECONFERENCE

As a result of the state of emergency declared by the President of the United States, Governor of Kentucky, and Mayor of the City of Louisville due to the global COVID-19 pandemic, and in accordance with recommended and mandated precautions related thereto and Kentucky Opinion of the Attorney General 20-05, the following Meeting Notice is issued:

The Regular Meeting of the Board of Directors of the Kentucky Municipal Energy Agency and the All Requirements Project Committee for Thursday, April 23, 2020, at 10:00 a.m. ET, in the KYMEA Board Room, 1700 Eastpoint Parkway, Suite 220, Louisville, Kentucky will be held per KRS 61.826, a video teleconference meeting. One or more members of the Board of Directors will participate via Webex or a similar video teleconferencing system. The primary location will be in the KYMEA Board Room, 1700 Eastpoint Parkway, Suite 220, Louisville, Kentucky.

Per Kentucky Attorney General Opinion 20-05, public attendance may be limited at this meeting due to the highly contagious nature of COVID-19, and it is not feasible for KYMEA to provide a large central physical location for public viewing with adequate spacing for a large public gathering. Physical attendance at the meeting will be limited to a small group to comply with social distancing declarations of government officials. Public comments on agenda items will be accepted for the meeting, by emailing comments to mhixon@kymea.org by Wednesday, April 22, 2020 at 4:00 p.m. ET.

If you would like to attend the April 23rd Board of Directors video meeting please contact mhixon@kymea.org or call at (502) 693-5179.

GUIDANCE FOR ATTENDING VIRUTAL BOARD/COMMITTEE MEETINGS

Invitation to the Meeting: KYMEA Board Members will receive a calendar invitation to each committee or Board meeting. Interested members of the general public are encouraged to attend and should send and an email request to mhixon@kymea.org indicating the meeting they would like to attend. Access will then be provided for the requested meeting.

Accessing WebEx: KYMEA committee and Board meetings may be held on occasion as video meetings via WebEx. It is free for attendees to join the WebEx meetings and participants do not need a WebEx account. The WebEx meetings can be accessed from computers, tablets, and smart phones.

Joining the Meeting: Attendees can join the meeting 10 minutes before the start of the meeting and should not join the meeting using more than one computer in the same room as it will create feedback.

Please test your video and audio connection by clicking the WebEx link the day prior to the meeting. You will always use the "Call In" audio connection. You will:

1. Dial the phone number given when selecting "Call In" for your audio connection.
2. Enter the access code and attendee ID that pops up on your screen.
3. Please mute your computer during the meeting. This will reduce the possibility of feedback.

We recommend that virtual meeting attendee uses a headset/earbuds with a microphone during the meeting to prevent feedback. If such headset/earbuds are not available, the volume on your phone should be turned up just enough to be able to hear those speaking, otherwise, there may be feedback.

Microphone: We ask that all virtual meeting attendees keep their microphones muted until you are speaking during a portion of the meeting. All virtual meeting attendees should control their own microphones via the WebEx application.

Disruption of Feed for Virtual Attendees:
If a presenter/speaker experiences a disruption in his/her video feed, it will be up to the Chair to determine if the meeting should be suspended taking into consideration the circumstances at the time. If we experience any technical difficulties that affect the Board and public's ability to see the meeting as a whole, the meeting will be suspended while we attempt to resolve the issue. If the issue cannot be resolved, the Chairperson will have the option of recessing the meeting until a designated time or adjourning the meeting. If the meeting is adjourned, any unfinished or pending business at that time will be addressed at the next meeting of the Board or Committee.

If you encounter problems while attending the meeting, please send a text to (502) 693-5179. Please also send a text message if you leave the meeting for any reason or are unable to return.

KENTUCKY MUNICIPAL ENERGY AGENCY

April 23, 2020	Committee Reports	Administration Reports	Discussion Topics	Action Items
	BROC	CEO	Document Retention Policy	FY 2021 AR & Service Rates
	AR Committee	Finance and Accounting	IRP Schedule	Open Record Request Policy
		Market Analytics	Open Records Items	Hedge Plan/Trading Matrix & Hedge Approval
		Member Communications	Legislation Update	CEO Performance Review

May 28, 2020	Committee Reports	Administration Reports	Discussion Topics	Action Items
		CEO	Cash Reserve Policy	Document Retention Policy
		Finance and Accounting		
		Market Analytics (Closed Session)		
		Member Communications		

June 25, 2020	Committee Reports	Administration Reports	Discussion Topics	Action Items
	BROC	CEO		
		Finance and Accounting		
		Market Analytics (Closed Session)		
		Member Communications		

July 22, 2020	Committee Reports	Administration Reports	Discussion Topics	Action Items
		CEO		

KENTUCKY MUNICIPAL ENERGY AGENCY

		Finance and Accounting		
		Market Analytics (Closed Session)		
		Member Communications		

August 27, 2020	Committee Reports	Administration Reports	Discussion Topics	Action Items
		CEO		
		Finance and Accounting		
		Market Analytics (Closed Session)		
		Member Communications		

September 24, 2020	Committee Reports	Administration Reports	Discussion Topics	Action Items
		CEO		
		Finance and Accounting		
		Market Analytics (Closed Session)		
		Member Communications		

*** This calendar is intended for planning purposes and may be changed at any time.**

KENTUCKY MUNICIPAL ENERGY AGENCY

Notice of a Combined Meeting of the AR Project Committee and the KYMEA Board of Directors

Location: 1700 Eastpoint Pkwy Ste. 220, Louisville, KY 40223
Thursday, April 23, 2020, 10 AM

A. Meeting Opening
A.1 Attendance
A.2 Guest Introductions
A.3 Call to Order

B. Meeting Minutes of the Combined Meeting of the AR Project Committee and the KYMEA Board of Directors

C. Financial Reports

D. Committee Reports
D.1 BROC
D.2 AR Project Committee (This report was Combined with the February Board Meeting minutes)

E. Administration Reports
E.1 CEO
E.2 Member Communications
E.3 Market Report

F. Discussion Topics
F.1 Document Retention Policy
F.2 IRP Schedule
F.3 Open Records Items
F.4 Legislation

G. AR Project Committee Meeting
G.1 FY 2021 AR Rates (action item)

H. Action Items
H.1 FY 2021 AR & Services Rates
H.2 Open Records Request Policy
H.3 Hedge Plan/Trading Matrix & Hedge Approval
H.4 CEO Performance Review

I. Public Comments

J. Upcoming Meetings & Other Business

K. Closed Session

L. Actions Related to Closed Session

M. Adjournment

Meeting Minutes

KENTUCKY MUNICIPAL ENERGY AGENCY

Notice of a Combined Meeting of the AR Project Committee and the KYMEA Board of Directors

Location: 1700 Eastpoint Pkwy Ste. 220, Louisville, KY 40223
Thursday, February 27, 2020, 10 AM

A. Meeting Opening

A.1. Attendance: Taken at 10:04 AM

Present Board Members:
Josh Callihan
Ronald Herd
Chris Melton
Kevin Frizzell
Kevin Howard
Gary Zheng
Mike Withrow (updated to absent at 12:16 PM)
Philip King (Updated to present at 10:45 AM, updated to absent at 12:16 PM)

Absent Board Members:
Carl Shoupe
Doug Hammers
Ramona Williams

Staff Present:
Michelle Hixon
Heather Overby
Doug Buresh
Rob Leesman

Others Present:
Charles Musson
David Denton
Pat Pace
Jim McWilliam
Walt Baldwin
Tom Marshall
Anna Marie Pavlik Rosen
Amye Bensenhaver

A.2. Guest Introductions: The Chairman thanked our guests for attending today's meeting and gave them an opportunity to introduce themselves if they desired.

A.3. Call to Order: Chairman, Ron Herd, called the meeting to order at 10:04 AM. A quorum of board members was present, and the Board was ready to proceed with business.

B. Meeting Minutes

B.1 Approval of the regular minutes of January 23, 2020.

Motion Passed: Approval of the previous month's meeting minutes passed with a motion by Chris Melton and second by Kevin Frizzell.

7 Yeas - 0 Nays.

Josh Callihan	Yes
Ronald Herd	Yes
Chris Melton	Yes
Mike Withrow	Yes
Carl Shoupe	Absent
Philip King	Absent
Kevin Frizzell	Yes
Doug Hammers	Absent
Kevin Howard	Yes
Ramona Williams	Absent
Gary Zheng	Yes

C. Financial Reports

B.2 Approval of last month's Financial Reports

Motion Passed: Approval of the previous month's financial reports passed with a motion by Josh Callihan and second by Chris Melton.

7 Yeas - 0 Nays.

Josh Callihan	Yes
Ronald Herd	Yes
Chris Melton	Yes
Mike Withrow	Yes
Carl Shoupe	Absent

Philip King	Absent
Kevin Frizzell	Yes
Doug Hammers	Absent
Kevin Howard	Yes
Ramona Williams	Absent
Gary Zheng	Yes

D. Committee Reports

D.1 AR Project Committee: The committee will go into session during this meeting. Previous workshop reports are in the Board packet for review.

D.2 Compensation Committee: Chairman, Ron Herd reported that there has been an agreement sent out and the committee hopes to meet soon on the matter.

E. Administration Reports

E.1 CEO: Doug Buresh presented the CEO report regarding the agency's past and upcoming activities.
E.2 CFO: Heather Overby updated the Board on past and upcoming Accounting and Finance activities.
E.3 Member Communications: Michelle Hixon updated the Board on upcoming events and member activities.

F. Discussion Topics

F.1 Load Interruption Procedure. Rob gave a presentation on working through load interruption scenarios.
F.2 Legislative Update-HB247. Charlie Musson gave an update on legislative activities.
F.3 Open Records Request Policy. Charlie Musson presented a draft of the Open Records Policy that has also been reviewed by Amye Bensenhaver. The Board will be requested to take action at the next Board meeting.
F.4 Avoided Costs. Doug Buresh gave a presentation on avoided costs.
F.5 FY 2021 AR Rates

G. AR Project Committee Meeting

G.1 FY 2021 AR Rates. Doug Buresh presented the FY2021 AR Rates that the AR Project Committee recommends. Board action will be expected in March.

Motion Passed: Motion to adjourn the AR Project Committee Meeting passed with a motion by Gary Zheng and a second by Josh Callihan.

8 Yeas - 0 Nays.

Josh Callihan	Yes
Ronald Herd	Yes
Chris Melton	Yes
Mike Withrow	Yes
Carl Shoupe	Absent
Philip King	Yes
Kevin Frizzell	Yes
Doug Hammers	Absent
Kevin Howard	Yes
Ramona Williams	Absent
Gary Zheng	Yes

H. Action Items

H.1 Amended Line of Credit Note

Motion Passed: Motion to authorize Doug Buresh and Heather Overby to sign the amended line of credit note passed with a motion by Josh Callihan and a second by Chris Melton.

8 Yeas - 0 Nays.

Josh Callihan	Yes
Ronald Herd	Yes
Chris Melton	Yes
Mike Withrow	Yes
Carl Shoupe	Absent
Philip King	Yes
Kevin Frizzell	Yes
Doug Hammers	Absent
Kevin Howard	Yes
Ramona Williams	Absent
Gary Zheng	Yes

H.2 KYMEA Officer Resolution

Motion Passed: Approval of the presented resolution establishing officers that are able to sign documents on behalf of KYMEA.

8 Yeas - 0 Nays.

Josh Callihan	Yes
Ronald Herd	Yes
Chris Melton	Yes
Mike Withrow	Yes
Carl Shoupe	Absent
Philip King	Yes
Kevin Frizzell	Yes
Doug Hammers	Absent
Kevin Howard	Yes
Ramona Williams	Absent
Gary Zheng	Yes

H.3 FY 2021 Administrative, General, and Capital Budget

Motion Passed: Motion to approve the presented FY 2021 Administrative, General, and Capital Budget passed with a motion by Kevin Frizzell and a second by Chris Melton.

8 Yeas - 0 Nays.

Josh Callihan	Yes
Ronald Herd	Yes
Chris Melton	Yes
Mike Withrow	Yes
Carl Shoupe	Absent
Philip King	Yes
Kevin Frizzell	Yes
Doug Hammers	Absent
Kevin Howard	Yes
Ramona Williams	Absent
Gary Zheng	Yes

I. Public Comments

This was an opportunity for members of the public to provide input to the KYMEA Board and was limited to 5 minutes per speaker.

Jim McWilliam, a citizen of Frankfort, KY said he read an article that mention KYMEA is building a power plant. Doug responded that KYMEA has no plans on the table to build a power plant. Doug also stated that all options will be considered as part of KYMEA's Integrated Resource Plan.

J. Upcoming Meetings and Other Business

The next meeting is Thursday, March 26th at 10 AM at the Louisville office.

The KYMEA Board of Directors shall hold its regular meetings on the fourth Thursday of each month, except for the months of November and December when the regular meeting shall be held on the third Wednesday. The regular meetings shall convene and commence at 10:00 AM Eastern time on said dates. The regular meetings shall be held at the KYMEA Board Room, 1700 Eastpoint Pkwy, Suite 220, Louisville, Kentucky.

2020 Board Meetings

Thursday, January 23, 2020, 10:00 AM Eastern Time, KYMEA Board Room
Thursday, February 27, 2020, 10:00 AM Eastern Time, KYMEA Board Room
Thursday, March 26, 2020, 10:00 AM Eastern Time, KYMEA Board Room
Wednesday, April 22, 2020, 1:00 PM Central Time, KMUA-Hyatt Place, Bowling Green
Friday, May 29, 2020, 10:00 AM Eastern Time, KYMEA Board Room
Thursday, June 25, 2020, 10:00 AM Eastern Time, KYMEA Board Room
Wednesday, July 22, 2020, 1:00 PM Eastern Time, KYMEA Board Room
Thursday, August 27, 2020, 10:00 AM Eastern Time, KYMEA Board Room
Thursday, September 24, 2020, 10:00 AM Eastern Time, KYMEA Board Room
Wednesday, October 21, 2020, 10:00 AM Eastern Time, KYMEA Board Room
Wednesday, November 18, 2020, 10:00 AM Eastern Time, KYMEA Board Room
Wednesday, December 16, 2020, 10:00 AM Eastern Time, KYMEA Board Room

Motion Passed: Motion toto recess for lunch passed with a motion by Josh Callihan and a second by Gary Zheng.

8 Yeas - 0 Nays.

Josh Callihan	Yes
Ronald Herd	Yes
Chris Melton	Yes
Mike Withrow	Yes
Carl Shoupe	Absent
Philip King	Yes
Kevin Frizzell	Yes
Doug Hammers	Absent
Kevin Howard	Yes
Ramona Williams	Absent
Gary Zheng	Yes

The Meeting was called to order after recess at 1:12 PM

K. Closed Session

Closed Session Authorization for February 27, 2020 KYMEA Board Meeting

Approval to enter into Closed Session pursuant to KRS 61.810(1)(c); KRS 61.810(1)(k) and KRS 61.878(1)(j) for the purpose of:

> (i) discussing proposed, potential or pending litigation relating to KYMEA and its members relating to transmission issues and cost adjustments; and
>
> (ii) discussing the market report and KYMEA's future and potential hedging strategy.

KRS 61.810(1)(c) allows for closed session for the purpose of discussing proposed, potential and pending litigation relating to the agency.

KRS 61.810(1)(k) and 61.878(1)(j) allow for closed session where presentation, discussion and review of preliminary recommendations and preliminary memoranda in which opinions are expressed or polices formulated or recommended.

Motion Passed: Motion to enter into closed session passed with a motion by Josh Callihan and a second by Chris Melton.

6 Yeas - 0 Nays.

Josh Callihan	Yes
Ronald Herd	Yes
Chris Melton	Yes
Mike Withrow	Absent
Carl Shoupe	Absent
Philip King	Absent
Kevin Frizzell	Yes
Doug Hammers	Absent
Kevin Howard	Yes
Ramona Williams	Absent
Gary Zheng	Yes

Motion Passed: Motion to return to open session passed with a motion by Josh Callihan and a second by Kevin Frizzell.

6 Yeas - 0 Nays.

Josh Callihan	Yes
Ronald Herd	Yes
Chris Melton	Yes
Mike Withrow	Absent
Carl Shoupe	Absent
Philip King	Absent
Kevin Frizzell	Yes
Doug Hammers	Absent
Kevin Howard	Yes
Ramona Williams	Absent
Gary Zheng	Yes

L. Actions Related to Closed Session

No actions were taken

M. Adjournment

Motion Passed: Motion to adjourn the KYMEA board meeting passed with a motion by Chris Melton and a second by Kevin Frizzell.

6 Yeas - 0 Nays.

KENTUCKY MUNICIPAL ENERGY AGENCY

Josh Callihan	Yes
Ronald Herd	Yes
Chris Melton	Yes
Mike Withrow	Absent
Carl Shoupe	Absent
Philip King	Absent
Kevin Frizzell	Yes
Doug Hammers	Absent
Kevin Howard	Yes
Ramona Williams	Absent
Gary Zheng	Yes

X _____

Chairperson

X _____

Secretary

Financial Reports

Financial Presentation

April 23, 2020

Statement of Net Position – February 2020, March 2020

1. Checking account cash

2. Billing to AR & Transmission service members and ancillary services

KENTUCKY MUNICIPAL ENERGY AGENCY

Statements of Net Position
February 2020, March 2020

HRO

	February 2020	March 2020	
ASSETS			
CURRENT ASSETS			
Cash and investments	$ 8,762,202	$ 8,703,126	1
Other receivables	7,172,935	6,199,640	2
Prepayments	1,367	-	
Total Current Assets	15,936,504	14,902,766	

Statement of Net Position – February 2020, March 2020

3. Collateral represents $1.9M at MISO and $800k at PJM.

KENTUCKY MUNICIPAL ENERGY AGENCY

Statements of Net Position
February 2020, March 2020

HRO

	February 2020	March 2020	
NON-CURRENT ASSETS			
Restricted Assets			
Pledged collateral	2,678,471	2,678,471	3
Interest receivable	-	-	
Total Restricted Assets	2,678,471	2,678,471	
Capital Assets			
Fixed Asset Clearing Account	-	-	
Office Buildout	253,638	253,638	
Meters - AR Project	210,090	219,464	
Meter Comm Equipment	330,672	330,672	
General Plant	739,412	739,412	
Construction work in progress	-	-	
Less Accumulated Depreciation	(196,295)	(211,337)	
Net Capital Assets	1,337,517	1,331,849	
Total Non-Current Assets	4,015,988	4,010,320	
Total Assets	19,952,492	18,913,086	

Statement of Net Position – February 2020, March 2020

4. AP represents purchase power.

5. Deferred Lease Liability represents the difference in average monthly rent for term of office lease and actual lease payments.

6. Line of Credit paid off in August 2019.

7. Positive net position - LTD

KYMEA.ORG

KENTUCKY MUNICIPAL ENERGY AGENCY

Statements of Net Position
February 2020, March 2020

HRO

	February 2020	March 2020	
LIABILITIES			
CURRENT LIABILITIES			
Accounts Payable	$ 9,280,572	$ 8,195,111	4
Accrued Employee Benefits	91,469	97,394	
Accrued interest payable	-	426	
Total Current Liabilities	9,372,042	8,292,932	
NON-CURRENT LIABILITIES			
Deferred Lease Liability	36,023	36,349	5
Line of Credit	-	-	6
Total Non-Current Liabilities	36,023	36,349	
Total Liabilities	9,408,065	8,329,281	
Net Position			
Invested in capital assets, net of related debt	1,337,517	1,331,849	
Restricted	-	-	
Unrestricted	9,206,910	9,251,956	
TOTAL NET POSITION	10,544,427	10,583,805	7

Revenue, Expenses, and Changes in Net Position – February 2020, March 2020

8. Sales to AR Members

9. RTO Auction Revenue Rights, and Resource Adequacy Auction in MISO and PJM

10. Sales of transmission and ancillary services

11. Transmission from MISO, PJM, and KU net of depancaking credit

12. All purchase power including PPA, ITO, and SEPA

13. Positive net income

KYMEA.ORG

KENTUCKY MUNICIPAL ENERGY AGENCY

HRO

CONSOLIDATED STATEMENTS OF REVENUE, EXPENSES, AND CHANGES IN NET POSITION

	February 2020	March 2020	YTD FY20	
OPERATING REVENUES				
Sales to members	$ 6,284,990	$ 5,322,659	$ 61,123,724	8
RTO Market Revenue	$ 32,338	$ 13,620	$ 157,260	9
Transmission Services	105,358	114,534	$ 956,485	10
Miscellaneous Revenue	3,500	(1,000)	5,000	
TOTAL OPERATING REVENUE	6,426,186	5,449,814	62,242,469	
OPERATING EXPENSES				
Transmission	562,839	471,698	5,719,871	11
Fuel	-	-	-	
Production	5,061,353	4,689,466	46,267,190	12
Administrative and General	188,819	228,962	1,696,747	
Depreciation	14,930	15,042	130,080	
Future recoverable costs	-	-	-	
TOTAL PURCHASE POWER AND OPERATING EXPENSES	5,827,942	5,405,168	53,813,888	
OPERATING INCOME	598,245	44,646	8,428,581	
NON-OPERATING REVENUES (EXPENSES)				
Interest expense on debt	-	(426)	(26,170)	
Interest income	44	-	13,914	
Other non-operating expenses (income)	(4,470)	(4,841)	(37,038)	
TOTAL NONOPERATING REVENUES (EXPENSES)	(4,425)	(5,267)	(49,295)	
CHANGE IN NET POSITION	593,819	39,379	8,379,286	
NET POSITION AT BEGINNING OF PERIOD	$ 9,950,607	$ 10,544,426	2,204,519	
NET POSITION AT END OF PERIOD	$ 10,544,426	$ 10,583,805	10,583,805	13

Indirect Cash Flow– February 2020, March 2020

14. Net Income

15. Timing of Accounts Payable has largest effect of operational items on cash.

16. Additional MISO Collateral

17. Cash balance in checking account

KYMEA.ORG

KENTUCKY MUNICIPAL ENERGY AGENCY

HRO
4/13/2020

CONSOLIDATED STATEMENT OF CASH FLOWS	CY Month Ended 2/29/2020	CY Month Ended 3/31/2020	CY YTD FY 2020	
CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES				
NET INCOME	$ 593,819	$ 39,379	$ 8,379,286	14
ADJUSTMENTS TO RECONCILE NET INCOME TO NET CASH:				
DEPRECIATION	$ 14,930	$ 15,042	$ 130,080	
CHANGES IN CURRENT & DEFERRED ITEMS:				
ACCOUNTS RECEIVABLE	$ 244,430	$ 973,295	$ 1,775,472	
MATERIALS & SUPPLIES	$ -	$ -	$ -	
PREPAYMENTS & OTHER CURRENT ASSETS	$ -	$ -	$ 1,196	
DEFERRED DEBITS	$ 1,367	$ 1,367	$ 11,928	15
OTHER REG ASSETS AND DEFERRED OUTFLOW OF RESOURCES	$ -	$ -	$ -	
ACCOUNTS PAYABLE	$ (413,038)	$ (1,086,280)	$ 185,010	
COLLATERAL DEPOSITS	$ -	$ -	$ -	
TAXES & INTEREST ACCRUED	$ (79)	$ 1,244	$ (14,217)	
OTHER CURRENT LIABILITIES	$ 6,212	$ 5,925	$ 8,880	
DEFERRED CREDITS	$ 326	$ 326	$ 3,893	
OTHER			$ -	
NET CASH PROVIDED BY (USED IN) OPERATION	$ 447,967	$ (49,702)	$ 10,481,530	
CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES				
ADDITIONS TO PLANT	$ -	$ (9,374)	$ (98,471)	
NET CHANGE IN OTHER PROP & INVEST	$ (500,000)	$ -	$ (402,360)	16
PLANT SOLD (PURCHASED) - NONINSTALLMENT METHOD	$ -	$ -	$ -	
OTHER - ASSET RETIREMENT OBLIGATIONS	$ -	$ -	$ -	
NET CASH PROVIDED BY (USED IN) INVESTING	$ (500,000)	$ (9,374)	$ (500,831)	
CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES				
LONG TERM BORROWINGS	$ -	$ -	$ -	
PAYMENT ON LONG TERM DEBT	$ -	$ -	$ (9,032,768)	
OTHER	$ -	$ -	$ -	
NET CASH PROVIDED BY (USED IN) FINANCING	$ -	$ -	$ (9,032,768)	
NET INCREASE (DECREASE) IN CASH & TEMP INVESTMENTS	$ (52,033)	$ (59,076)	$ 947,931	
CASH & TEMP INVESTMENTS BEGINNING PERIOD	$ 8,814,235	$ 8,762,202	$ 7,755,194	
CASH & TEMP INVESTMENTS END OF PERIOD	$ 8,762,202	$ 8,703,126	$ 8,703,126	17

KENTUCKY MUNICIPAL ENERGY AGENCY

Statements of Net Position
February 2020, March 2020

HRO

	February 2020	March 2020
ASSETS		
CURRENT ASSETS		
Cash and investments	$ 8,762,202	$ 8,703,126
Other receivables	7,172,935	6,199,640
Prepayments	1,367	-
Total Current Assets	15,936,504	14,902,766
NON-CURRENT ASSETS		
Restricted Assets		
Pledged collateral	2,678,471	2,678,471
Interest receivable	-	-
Total Restricted Assets	2,678,471	2,678,471
Capital Assets		
Fixed Asset Clearing Account	-	-
Office Buildout	253,638	253,638
Meters - AR Project	210,090	219,464
Meter Comm Equipment	330,672	330,672
General Plant	739,412	739,412
Construction work in progress	-	-
Less Accumulated Depreciation	(196,295)	(211,337)
Net Capital Assets	1,337,517	1,331,849
Total Non-Current Assets	4,015,988	4,010,320
Total Assets	19,952,492	18,913,086

KENTUCKY MUNICIPAL ENERGY AGENCY

Statements of Net Position
February 2020, March 2020

HRO

	February 2020	March 2020
LIABILITIES		
CURRENT LIABILITIES		
Accounts Payable	$ 9,280,572	$ 8,195,111
Accrued Employee Benefits	91,469	97,394
Accrued interest payable	-	426
Total Current Liabilities	9,372,042	8,292,932
NON-CURRENT LIABILITIES		
Deferred Lease Liability	36,023	36,349
Line of Credit	-	-
Total Non-Current Liabilities	36,023	36,349
Total Liabilities	9,408,065	8,329,281
Net Position		
Invested in capital assets, net of related debt	1,337,517	1,331,849
Restricted	-	-
Unrestricted	9,206,910	9,251,956
TOTAL NET POSITION	10,544,427	10,583,805

KENTUCKY MUNICIPAL ENERGY AGENCY

HRO

CONSOLIDATED STATEMENTS OF REVENUE, EXPENSES, AND CHANGES IN NET POSITION

	February 2020	March 2020	YTD FY20
OPERATING REVENUES			
Sales to members	$ 6,284,990	$ 5,322,659	$ 61,123,724
RTO Market Revenue	$ 32,338	$ 13,620	$ 157,260
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Miscellaneous Revenue	3,500	(1,000)	5,000
TOTAL OPERATING REVENUE	6,426,186	5,449,814	62,242,469
OPERATING EXPENSES			
Transmission	562,839	471,698	5,719,871
Fuel	-	-	-
Production	5,061,353	4,689,466	46,267,190
Administrative and General	188,819	228,962	1,696,747
Depreciation	14,930	15,042	130,080
Future recoverable costs	-	-	-
TOTAL PURCHASE POWER AND OPERATING EXPENSES	5,827,942	5,405,168	53,813,888
OPERATING INCOME	598,245	44,646	8,428,581
NON-OPERATING REVENUES (EXPENSES)			
Interest expense on debt	-	(426)	(26,170)
Interest income	44	-	13,914
Other non-operating expenses (income)	(4,470)	(4,841)	(37,038)
TOTAL NONOPERATING REVENUES (EXPENSES)	(4,425)	(5,267)	(49,295)
CHANGE IN NET POSITION	593,819	39,379	8,379,286
NET POSITION AT BEGINNING OF PERIOD	**$ 9,950,607**	**$ 10,544,426**	**2,204,519**
NET POSITION AT END OF PERIOD	**$ 10,544,426**	**$ 10,583,805**	**10,583,805**

KENTUCKY MUNICIPAL ENERGY AGENCY

HRO
4/13/2020

CONSOLIDATED STATEMENT OF CASH FLOWS	CY Month Ended 2/29/2020	CY Month Ended 3/31/2020	CY YTD FY 2020
CASH PROVIDED BY (USED IN) OPERATING ACTIVITIES			
NET INCOME	$ 593,819	$ 39,379	$ 8,379,286
ADJUSTMENTS TO RECONCILE NET INCOME TO NET CASH:			
DEPRECIATION	$ 14,930	$ 15,042	$ 130,080
CHANGES IN CURRENT & DEFERRED ITEMS:			
ACCOUNTS RECEIVABLE	$ 244,430	$ 973,295	$ 1,775,472
MATERIALS & SUPPLIES	$ -	$ -	$ -
PREPAYMENTS & OTHER CURRENT ASSETS	$ -	$ -	$ 1,196
DEFERRED DEBITS	$ 1,367	$ 1,367	$ 11,928
OTHER REG ASSETS AND DEFERRED OUTFLOW OF RESOURCES	$ -	$ -	$ -
ACCOUNTS PAYABLE	$ (413,038)	$ (1,086,280)	$ 185,010
COLLATERAL DEPOSITS	$ -	$ -	$ -
TAXES & INTEREST ACCRUED	$ (79)	$ 1,244	$ (14,217)
OTHER CURRENT LIABILITIES	$ 6,212	$ 5,925	$ 8,880
DEFERRED CREDITS	$ 326	$ 326	$ 3,893
OTHER			$ -
NET CASH PROVIDED BY (USED IN) OPERATION	$ 447,967	$ (49,702)	$ 10,481,530
CASH PROVIDED BY (USED IN) INVESTING ACTIVITIES			
ADDITIONS TO PLANT	$ -	$ (9,374)	$ (98,471)
NET CHANGE IN OTHER PROP & INVEST	$ (500,000)	$ -	$ (402,360)
PLANT SOLD (PURCHASED) - NONINSTALLMENT METHOD	$ -	$ -	$ -
OTHER - ASSET RETIREMENT OBLIGATIONS	$ -	$ -	$ -
NET CASH PROVIDED BY (USED IN) INVESTING	$ (500,000)	$ (9,374)	$ (500,831)
CASH PROVIDED BY (USED IN) FINANCING ACTIVITIES			
LONG TERM BORROWINGS	$ -	$ -	$ -
PAYMENT ON LONG TERM DEBT	$ -	$ -	$ (9,032,768)
OTHER	$ -	$ -	$ -
NET CASH PROVIDED BY (USED IN) FINANCING	$ -	$ -	$ (9,032,768)
NET INCREASE (DECREASE) IN CASH & TEMP INVESTMENTS	$ (52,033)	$ (59,076)	$ 947,931
CASH & TEMP INVESTMENTS BEGINNING PERIOD	$ 8,814,235	$ 8,762,202	$ 7,755,194
CASH & TEMP INVESTMENTS END OF PERIOD	$ 8,762,202	$ 8,703,126	$ 8,703,126

Reconciliation Transactions Report

04/13/20 08:46:10 PM 03/01/20-03/31/20 131.00 CASH User Id: 2011

Statement Ending Balance :	8,706,231.24
Outstanding Payments(-) :	3,105.66
Adjustments in Transit(+) :	.00
Deposits in Transit(+) :	.00
Adjusted Bank Balance :	8,703,125.58
Book Balance :	8,703,125.58
Pending Adjustments :	.00
Adjusted Book Balance :	8,703,125.58
Difference :	.00

Committee Reports

D. Committee Reports

D.1 BROC

D.2 AR Project Committee Report (This report was Combined with the February Board Meeting Minutes)

Administration Reports

E. Administration Reports
E.1 CEO
E.2 Member Communications
E.3 Market Report

KYMEA

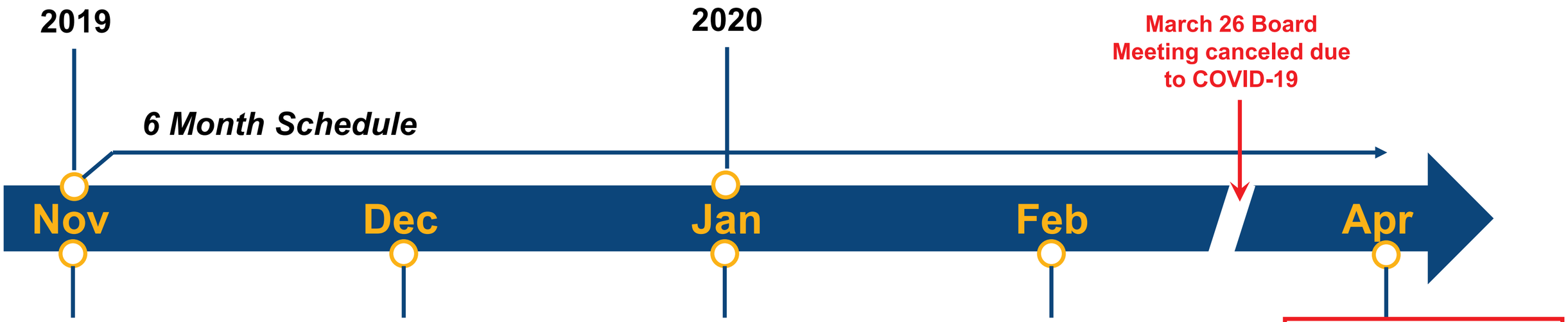
President & CEO Update

Doug Buresh

April 23, 2020

KYMEA_Board_Presentation_April_2020_CEO_04-23-2020.pptx

FY2021 AR Rate and Service Rates Process



Staff

- Plan FY2021 Activities
- Prepare Preliminary Budget for Budget Committee

❑ A&G

❑ Capital

Budget Committee

- Staff Presents Preliminary Budget to Budget Committee (11/19/2019)

Staff

- Prepare Revised Budget for Budget Committee
- Prepare for Current Year Pro Forma for AR Workshop

Budget Committee

- Staff Presents Revised Budget for Approval (12/17/2019)

AR Rate Workshop

- Staff Presents Current Year Pro Forma for AR Workshop (12/18/2019)

Staff

- Prepare FY2021 AR Rate Design

AR Rate Workshop

- Staff Presents Preliminary AR Rate Design (1/22/2020)

Board

- Staff/Budget Committee Presents Budget (1/23/2020)

Staff

- Prepare Preliminary FY2021 AR Rates

AR Project Committee

- Staff Presents Preliminary AR Rate Rates (2/27/2020)

Board

- Budget Approval (2/27/2020)

Staff

- Prepare Final FY2021 AR Rates
- Prepare Final FY2021 Service Rates

AR Project Committee

- AR Rate Approval (4/23/2020)

Board

- AR Rate Approval (4/23/2020)
- Service Rate Approval (4/23/2020)

PPA Annual Operations Meetings

PPA Annual Operations Meetings

- Big Rivers Electric Corporation (March 10th)
- Paducah Power System (April 8th)
- Paris (April 9th)
- Vistra (April 14th)

Topics

- Fuel Supply, Deliverability, and Cost
- Planned Outages
- Unit(s) Availability
- Scheduling
- Settlements

Ashwood Solar I Quarterly Update

Operating Committee Meeting Notes (KYMEA and RWE)

1. **Interconnection Study Status**
   - **Currently in suspension to postpone schedule temporarily. Will be brought out of suspension in mid-2020 to align with 24-month construction schedule.**
2. **Interconnection Timeline**
   - **24-months to complete network upgrades for 3-breaker ring bus. Construction expected to start Q2 2020.**
3. **Solar Timeline**
   - **Start construction in March 2022 with COD in December 2022. All permits and required due diligence to be completed in Q4 2021.**
4. **Current Permitting and Study Status**
   - **Most environmental studies/surveys have been completed.**
   - **Majority of the remaining studies needed to complete the siting board application package are socio-economic and local impact studies. RWE began work on those late in Q4 2019 and continue to dispatch additional studies in Q2 2020.**
   - **Project does not exceed FAA Notice Criteria (no glare issues) since distance to nearest airport is 8 miles away.**
   - **Full Siting Board application package expected Q2 2020.**
     a) **Potential project implications based on re-route of US Hwy 641.**
     b) **Re-route of US Hwy 641 will have minimal impact to proposed project areas.**

Note: Permit Application Town Hall Meeting(s) shifted to Q2 2020 due to corona virus.

APPA Legislative Rally

Legislative Rally
Washington, D.C.
February 24-26, 2020

Attendees (KYMEA and KMUA Members)

- FERC Commissioners (Bernard McNamee, Richard Glick)
- Senator Mitch McConnell
- Senator Rand Paul
- Representatives Hal Rogers, James Comer, Andy Barr, Thomas Massie, John Yarmuth, Brett Guthrie)

Key Issues

- Preserve the Municipal Exemption from Federal Pole Attachment Rates
- Protect Municipal Bonds
- Federal Policy for Carbon Capture Viability

KYMEA Training – Utility Accounting for non-Financial Professionals

Attendees (KYMEA Staff and KYMEA Member Employees)

- **Training Conducted by BKD**
- **March 11th at KYMEA Training Room**
- **18 attendees**

Key Note Speakers

Chris Lindner, CPA, CGFM
Partner
BKD CPAs & Advisors

Chris, a member of BKD National Public Sector Group and BKD National Energy & Natural Resources Practice, has more than 13 years of experience in public accounting, specializing in providing audit and consulting services to governmental and utility entities.

He is a member of the American Institute of CPAs and Nebraska Society of Certified Public Accountants where he chairs the State and Local Governmental Accounting and Auditing Committee. He also is involved with Leadership Lincoln, League of Nebraska Municipalities, Government Finance Officers Association (GFOA) and American Public Power Association.

Chris is a regular presenter at the Great Plains chapter of GFOA and APPA conferences, speaking on a variety of topics, including implementation of new accounting standards, financial reporting changes and internal control considerations. He also is a certified Government Financial Manager® (CGFM®).

Chris is a summa cum laude graduate of Peru State College, Nebraska, with a B.S. degree in business administration.

Amy Shreck, CPA
Director
BKD CPA's & Advisors

Amy is a member of BKD National Public Sector Group and has more than 13 years of experience working with governmental entities. She leads the BKD Public Sector Center of Excellence, an internal committee of leaders across the firm who discuss a variety of issues important to the public sector.

She recently completed a two-year term as a practice fellow with GASB at its headquarters, where she helped to formulate standards and assisted with technical inquiries. Amy's experience at GASB allows her to help clients better understand GASB standards and the thought process behind the standards.

Amy is a member of the American Institute of CPAs and Nebraska Society of Certified Public Accountants. She is also a frequent presenter at the Great Plains chapter of GFOA conferences, speaking on financial reporting changes, including new GASB statements and projects.

Amy is a graduate with highest distinction of University of Nebraska-Lincoln with a B.S. degree in business administration and an M.P.A. degree.

AGENDA

Utility Accounting for Non-Financial Professionals

❖ **Welcome**	**9:00 am – 9:05 am**
❖ **Who's Who?**	**9:05 am – 9:55 am**
❖ **Get to Know the Financial Statements (Part I)**	**9:55 am – 10:45 am**
❖ **Session Break**	**10:45 am – 11:00 am**
❖ **Get to Know the Financial Statements (Part II)**	**11:00 am – 12:00 pm**
❖ **Lunch**	**12:00 pm – 1:00 pm**
❖ **Using Financial Data/Key Metrics (Part I)**	**1:00 pm – 1:50 pm**
❖ **Session Break**	**1:50 pm – 2:00 pm**
❖ **Using Financial Data/Key Metrics (Part II)**	**2:00 pm – 2:45 pm**
❖ **Q & A and Closing Comments**	**2:45 pm – 3:00 pm**

COVID-19 Action Plan

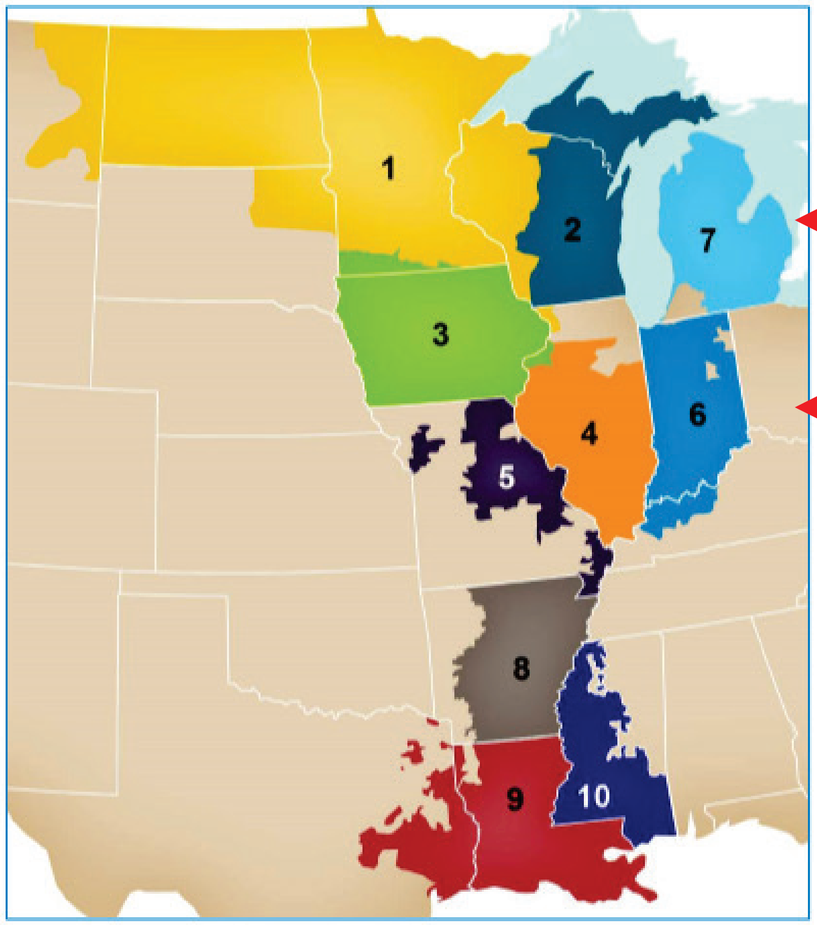
Actions

- **Studied COVID-91 impact on load, markets, net incomes, and future rates. On-going load work with ITRON and ACES.**
- **KYMEA staff began working from home on March 16th (existing IT infrastructure easily allowed the move to temporary home office)**
- **Staff has attended numerous SBA, APPA, and Kentucky Chamber webinars.**

MISO Planning Resource Auction (PRA) 2020/2021 Results

Auction Clearing Prices ~$5/MW-day with exception of Zone 7, which cleared at CONE

Zone	Local Balancing Authorities	Price $/MW-Day
1	DPC, GRE, MDU, MP, NSP, OTP, SMP	$5.00
2	ALTE, MGE, UPPC, WEC, WPS, MIUP	$5.00
3	ALTW, MEC, MPW	$5.00
4	AMIL, CWLP, SIPC	$5.00
5	AMMO, CWLD	$5.00
6	BREC, CIN, HE, IPL, NIPS, SIGE	$5.00
7	CONS, DECO	$257.53
8	EAI	$4.75
9	CLEC, EES, LAFA, LAGN, LEPA	$6.88
10	EMBA, SME	$4.75
ERZ	KCPL, OPPD, WAUE (SPP), PJM, OVEC, LGEE, AECI, SPA, TVA	$4.89-5.00



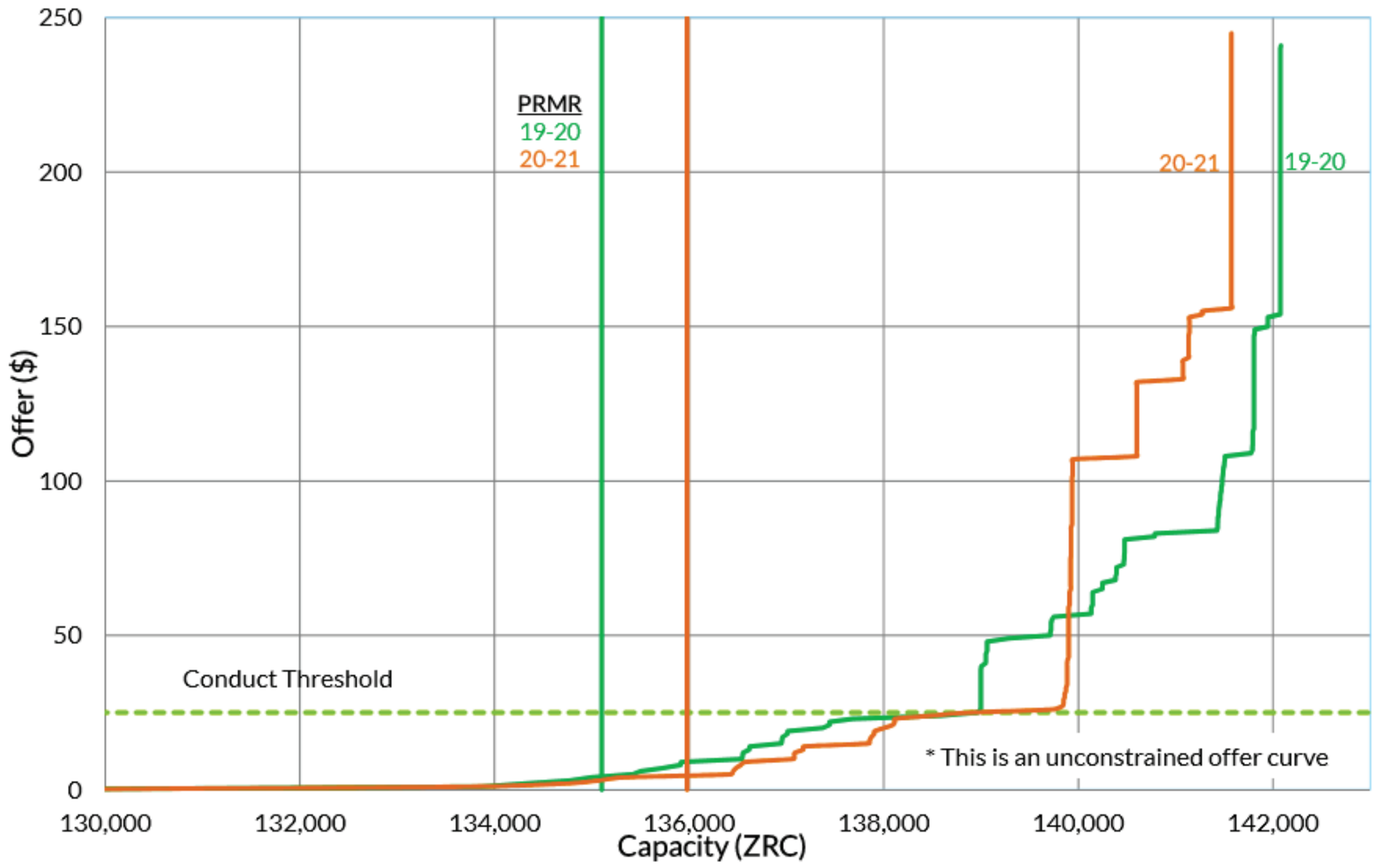
← $7.83/kW-MO

← $0.15/kW-MO

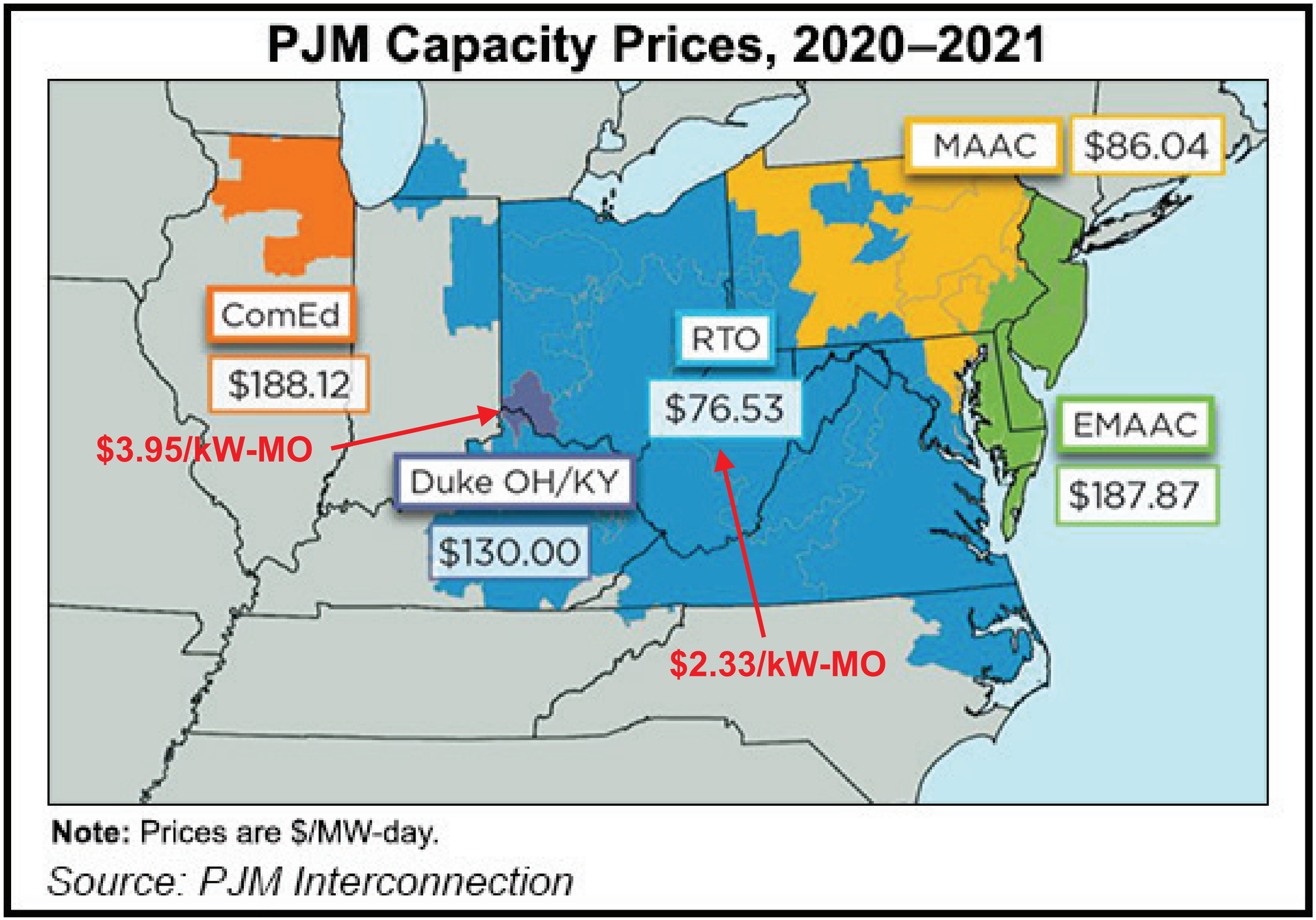
ERZ = External Resource Zones

MISO Planning Resource Auction (PRA) 2020/2021 Results

2020-21 Offer Curve* generally similar to 2019-20



PJM Resource Planning Auction (PRA) 2020/2021 Results



Industry News – HMP&L

Discussion

- ❑ **Article regarding HMP&L - PV Magazine**
  - ➢ **50 MW of Solar: "The Henderson utility has been learning from the Kentucky Municipal Energy Agency, which serves ten municipal utilities across the state and is building an 86 MW solar plant. "They're talking lead times and logistics and all the things that we're just starting to go through," Heimgartner said.**
  - ➢ **"Beyond the 50 MW of solar, the least-cost plan includes meeting ramping needs with 20-MW reciprocating engines," said Heimgartner**

https://pv-magazine-usa.com/2020/04/20/kentucky-city-of-28000-selects-50-mw-of-solar-to-help-lower-electric-bills

KYMEA

Member Communications

April 23, 2020

REGISTER TODAY

The Annual Board Meeting will take place on Friday, May 29th at 10 AM at the KYMEA office.

The cut-off date for room reservations is April 27th.

KYMEA.ORG

KENTUCKY MUNICIPAL ENERGY AGENCY

2020 ANNUAL CONFERENCE

MAY 28, 2020

Cancelled

Featured Speakers

Hear from public power professionals on key topics that affect your community.

- Final Metrics for a Healthy Agency and Members
- FERC Transmission Incentives and Return on Equity
- Cyber Security and Physical Preparedness

Dawn Lund
Vice-President
Utility Financial Solutions, LLC

Delia Patterson
Senior Vice President for Advocacy & Communications and General Counsel

Nathan Mitchell
Sr. Director of Cyber and Physical Security Services

Dates to Remember

May 28th — **Annual Board Meeting (10 AM) at KYMEA Board Room**

COVID-19 Resources

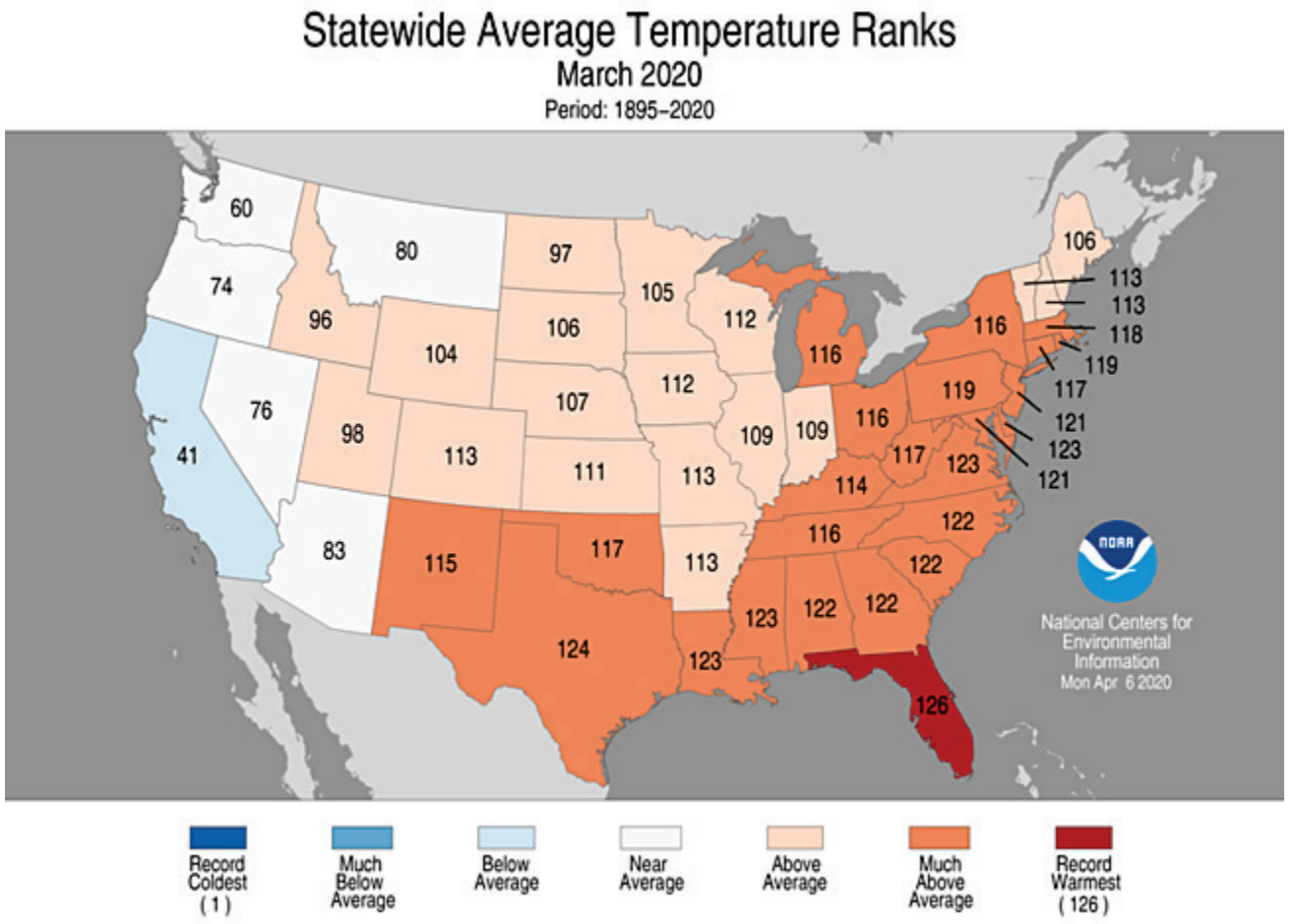
We want to know:

- How is COVID-19 impacting your community?
- How are you providing relief to customers affected by COVID-19?
- Tell us how your community is spreading joy and positivity during this difficult time.
- Do you have and individual/group that has gone above and beyond to help their community cope with COVID-19?

March 2020 in Review

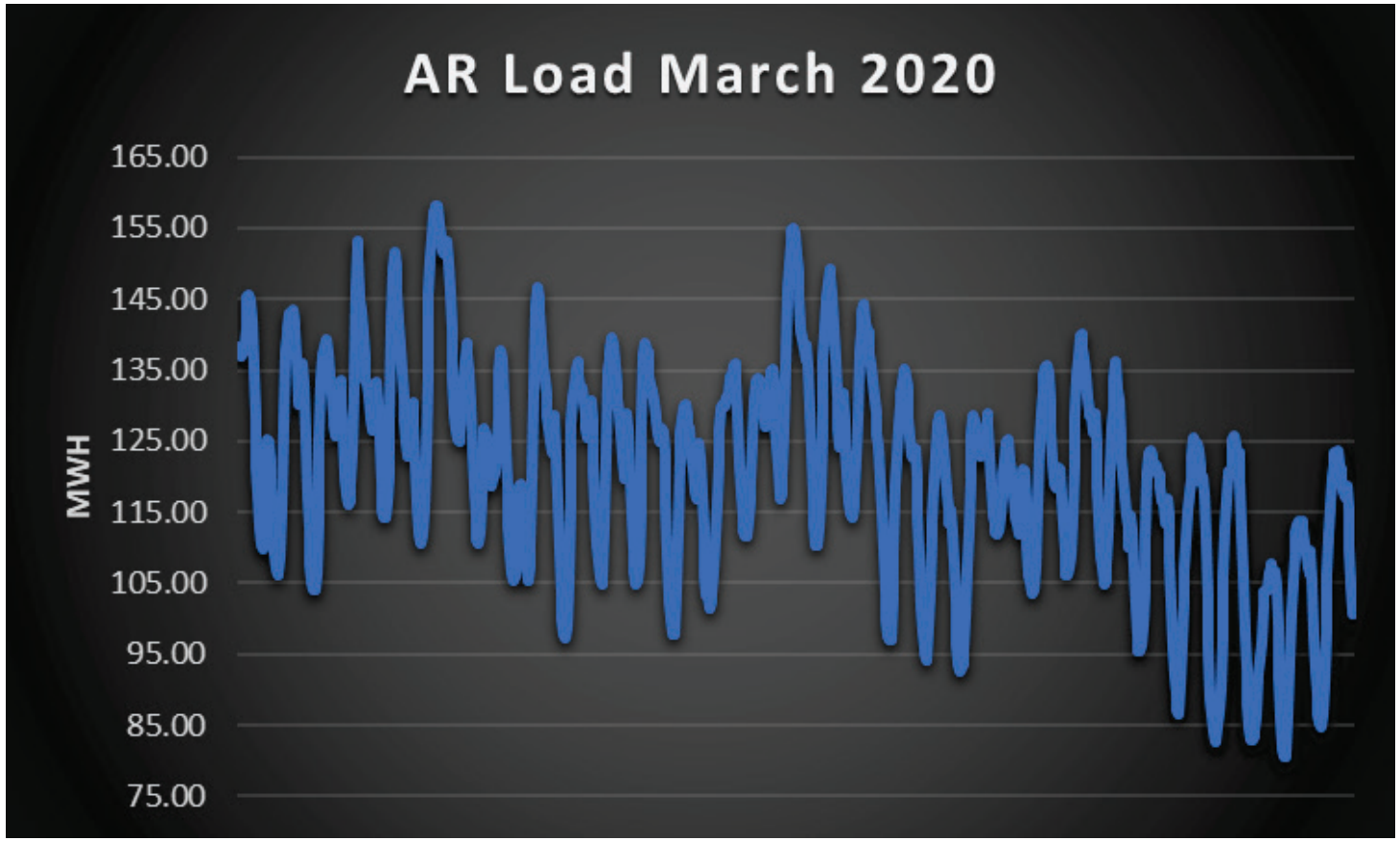
April 23, 2020

March 2020 Temperature Ranks

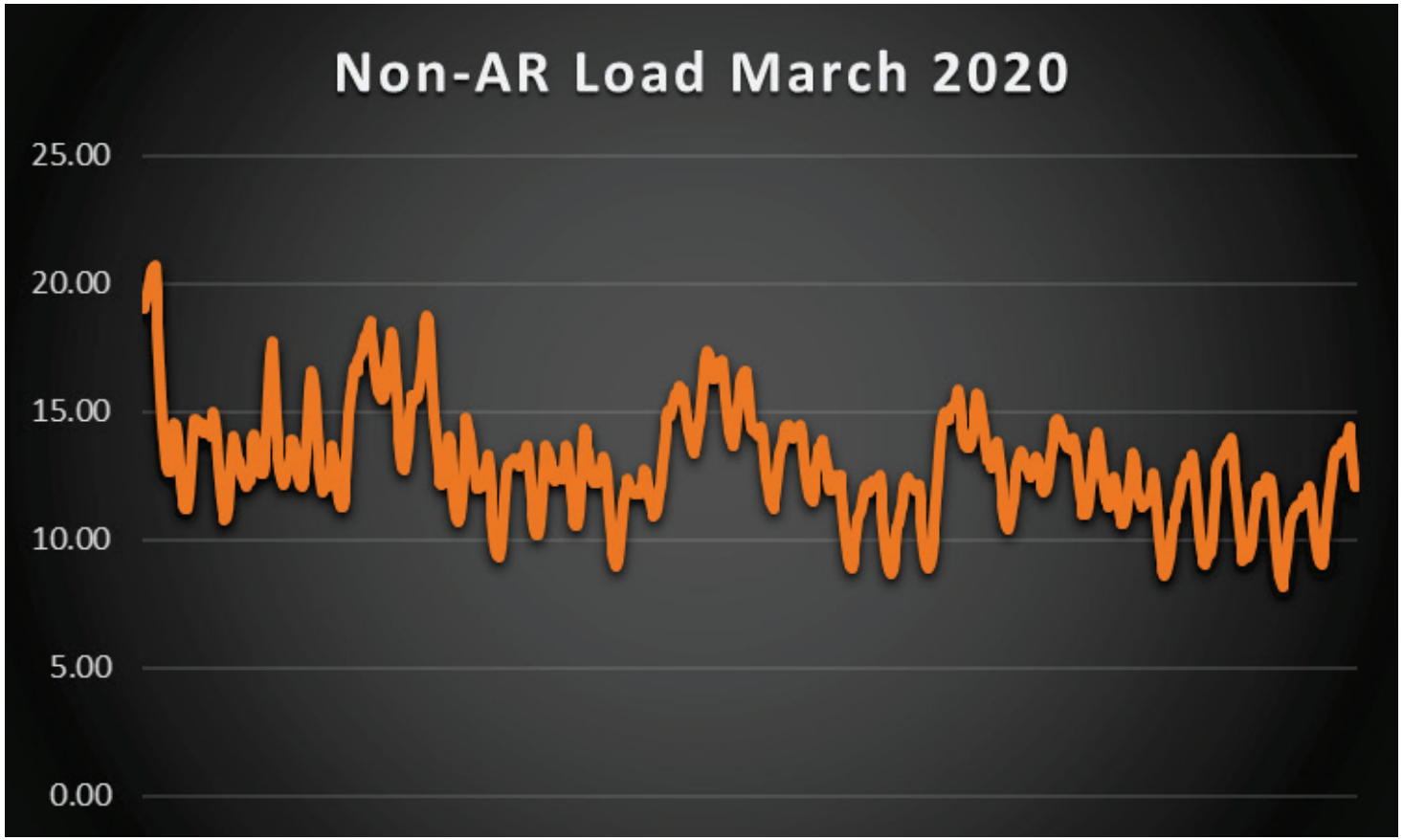


https://www.ncdc.noaa.gov/temp-and-precip/us-maps/

March 2020 AR Load



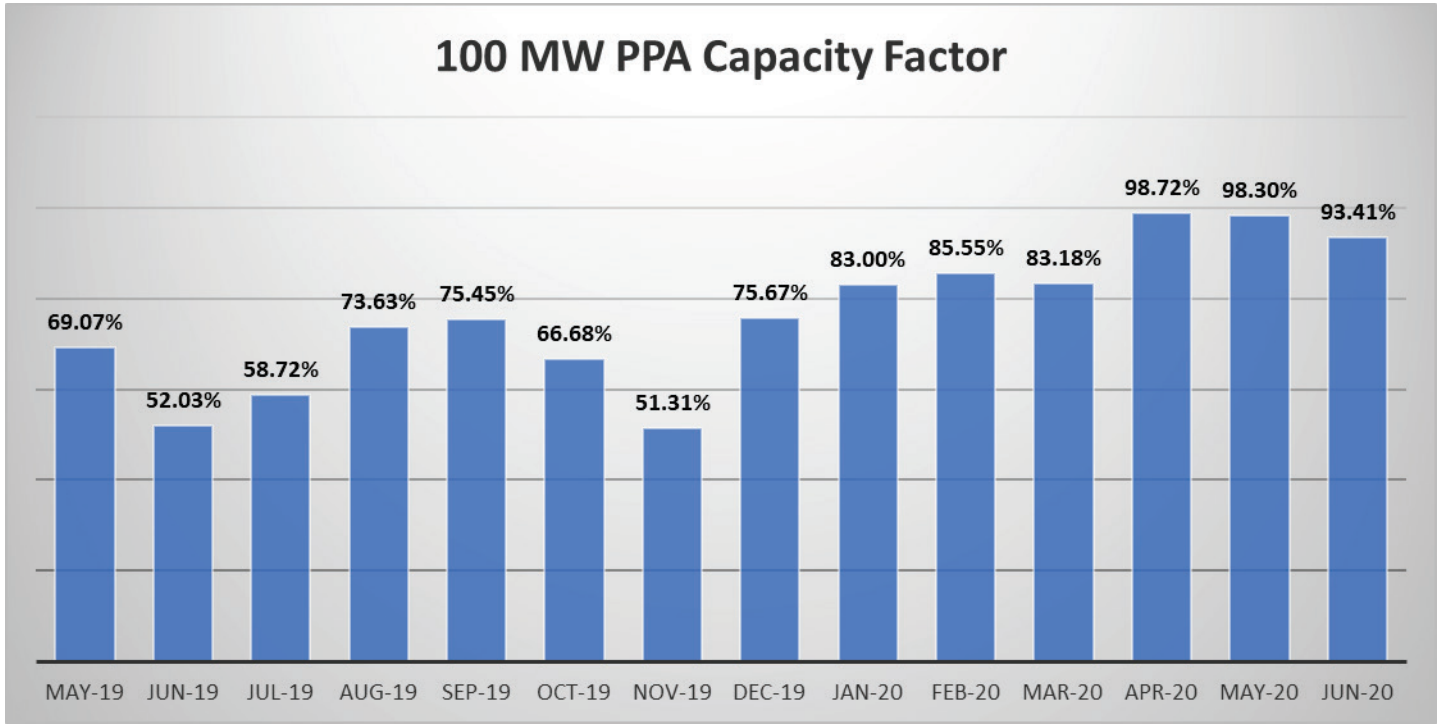
March 2020 Non-AR Load



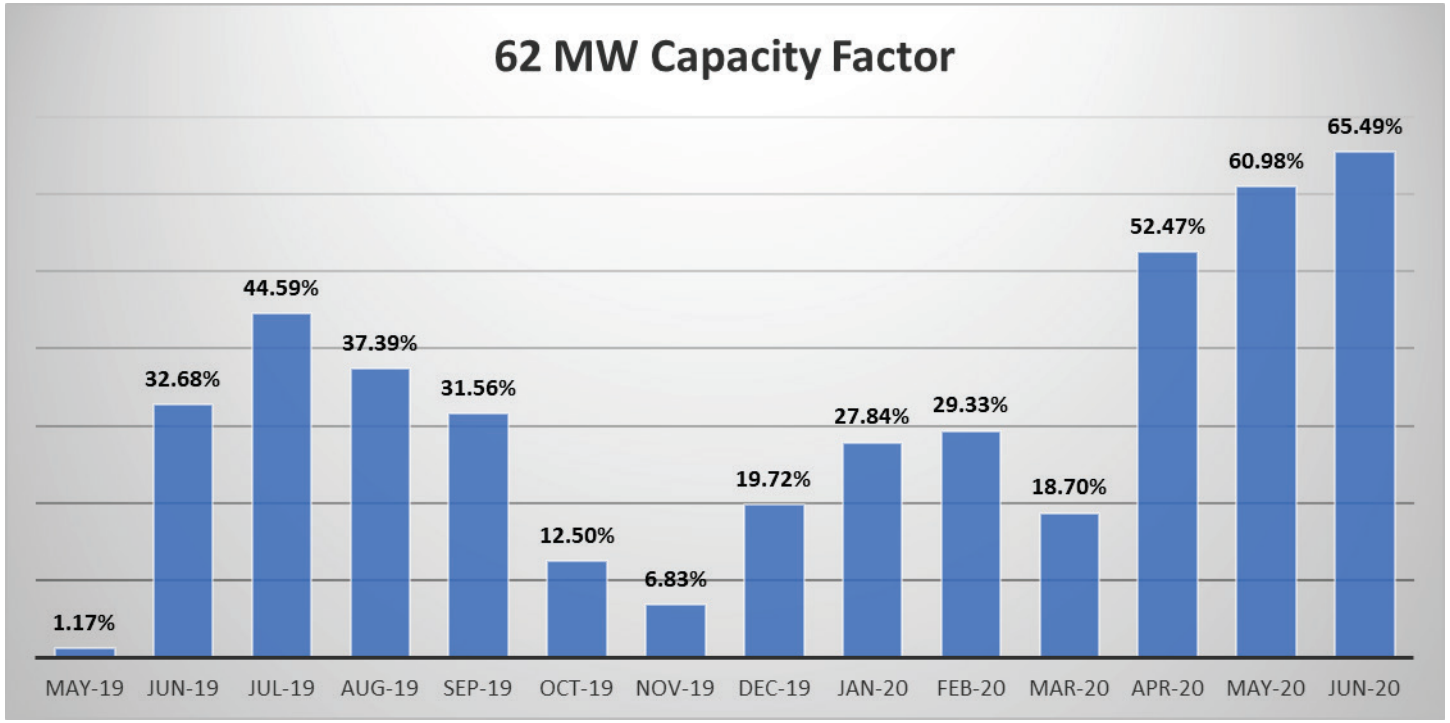
March 2020 Snapshot

Mar-20							
Member	Budget Energy (MWh)	Actual Energy (MWh)	Actual vs. Budget Energy	Budget NCP (MW)	Actual NCP (MW)	Actual vs. Budget NCP	Timestamp (HE EST)
Barbourville	7,294	6,339	87%	15.37	13.64	89%	3/1/2020 8:00 AM
Bardwell	645	587	91%	1.26	1.03	82%	3/15/2020 8:00 PM
Benham	577	478	83%	1.71	1.81	106%	3/1/2020 8:00 AM
Berea	9,381	9,142	97%	21.68	18.89	87%	3/1/2020 7:00 AM
Corbin	6,738	5,873	87%	14.63	11.11	76%	3/1/2020 8:00 AM
Falmouth	1,492	1,361	91%	2.81	2.46	88%	3/6/2020 1:00 PM
Frankfort	52,732	49,564	94%	103.05	89.66	87%	3/6/2020 2:00 PM
Madisonville	23,245	19,759	85%	40.76	33.77	83%	3/16/2020 11:00 AM
Owensboro	62,096	56,616	91%	100.00	93.00	93%	
Paris	5,069	4,269	84%	11.16	8.82	79%	3/1/2020 9:00 AM
Providence	2,236	1,982	89%	4.32	3.43	79%	3/6/2020 9:00 PM

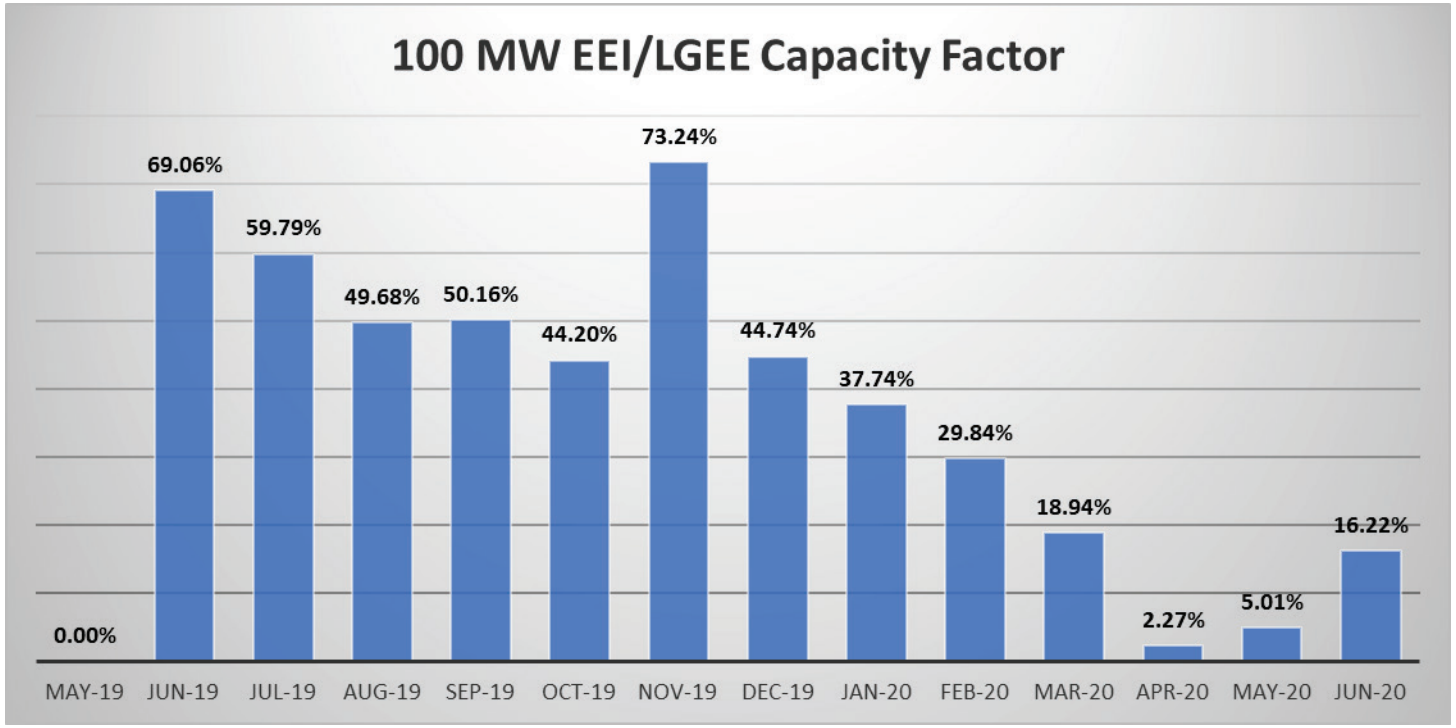
BREC PPA Capacity Factor



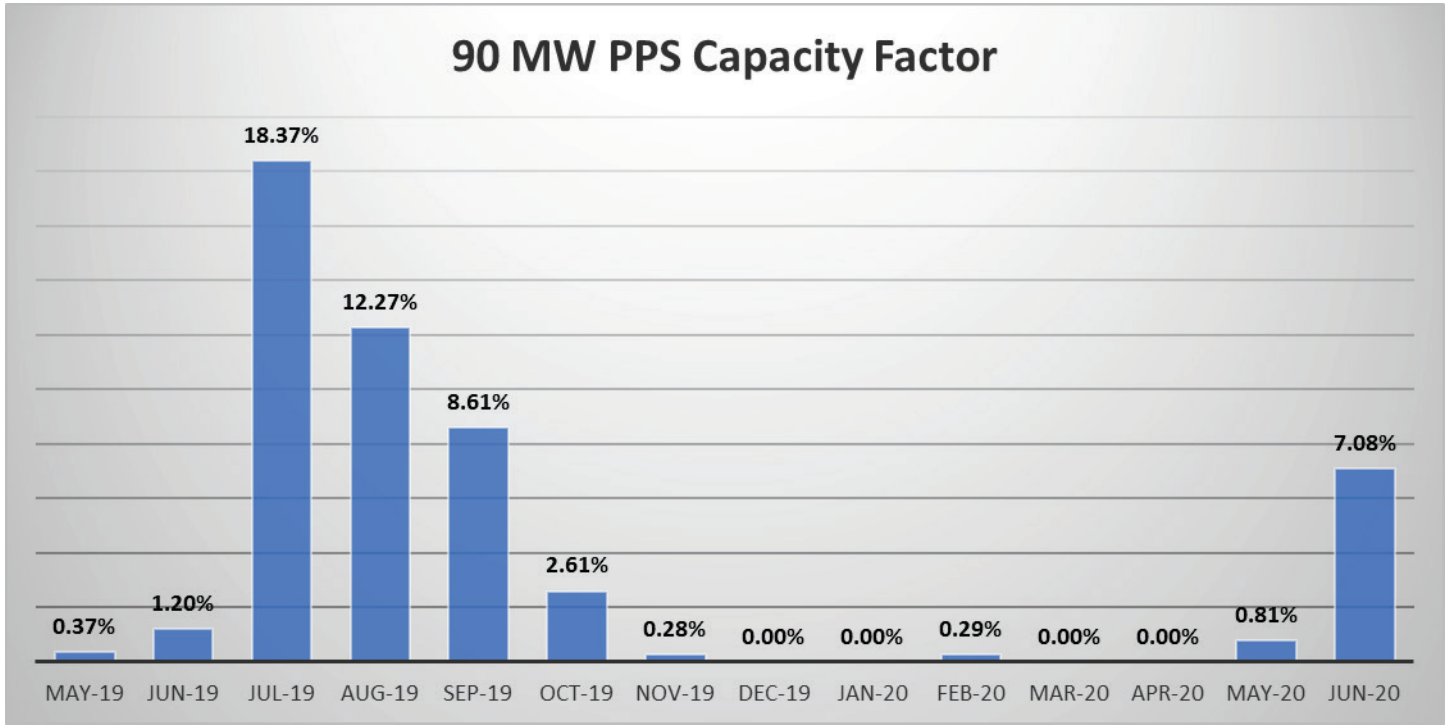
BREC Option Capacity Factor



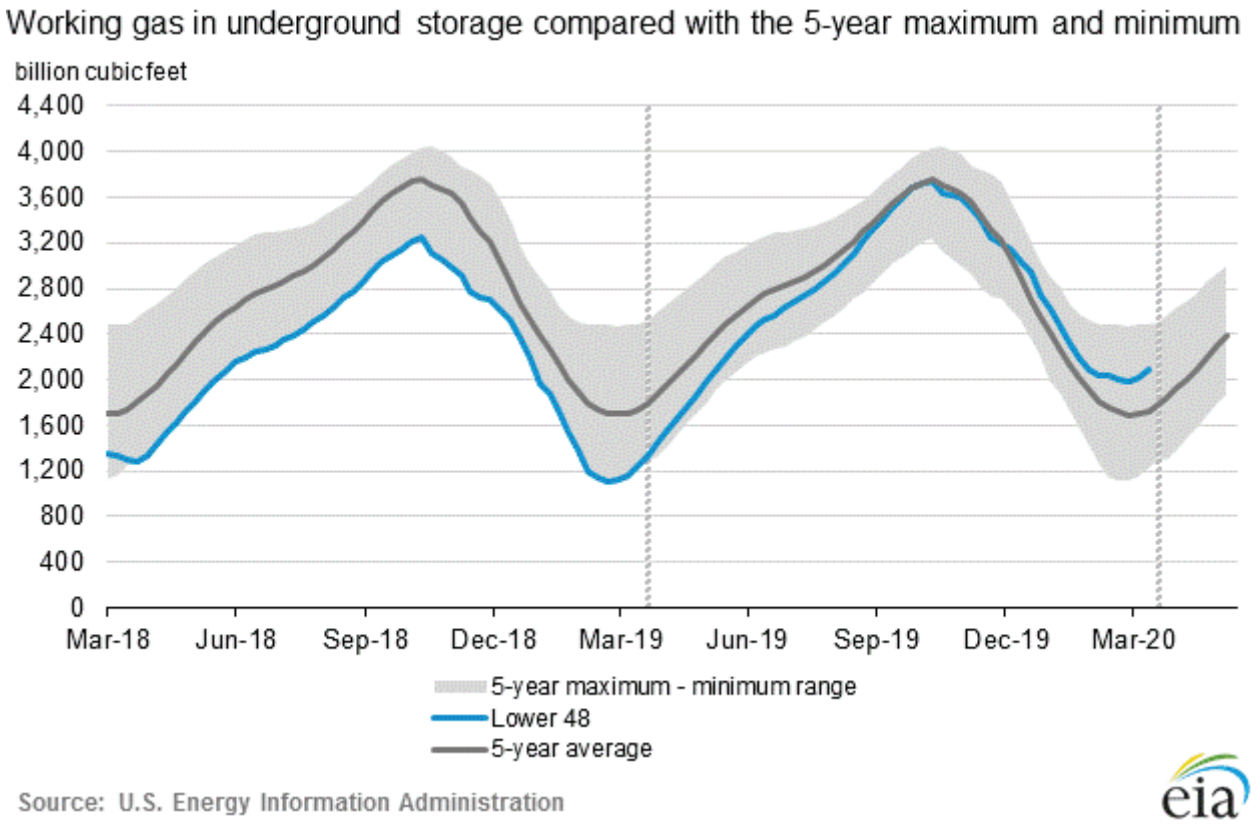
EEI/LGEE Capacity Factor



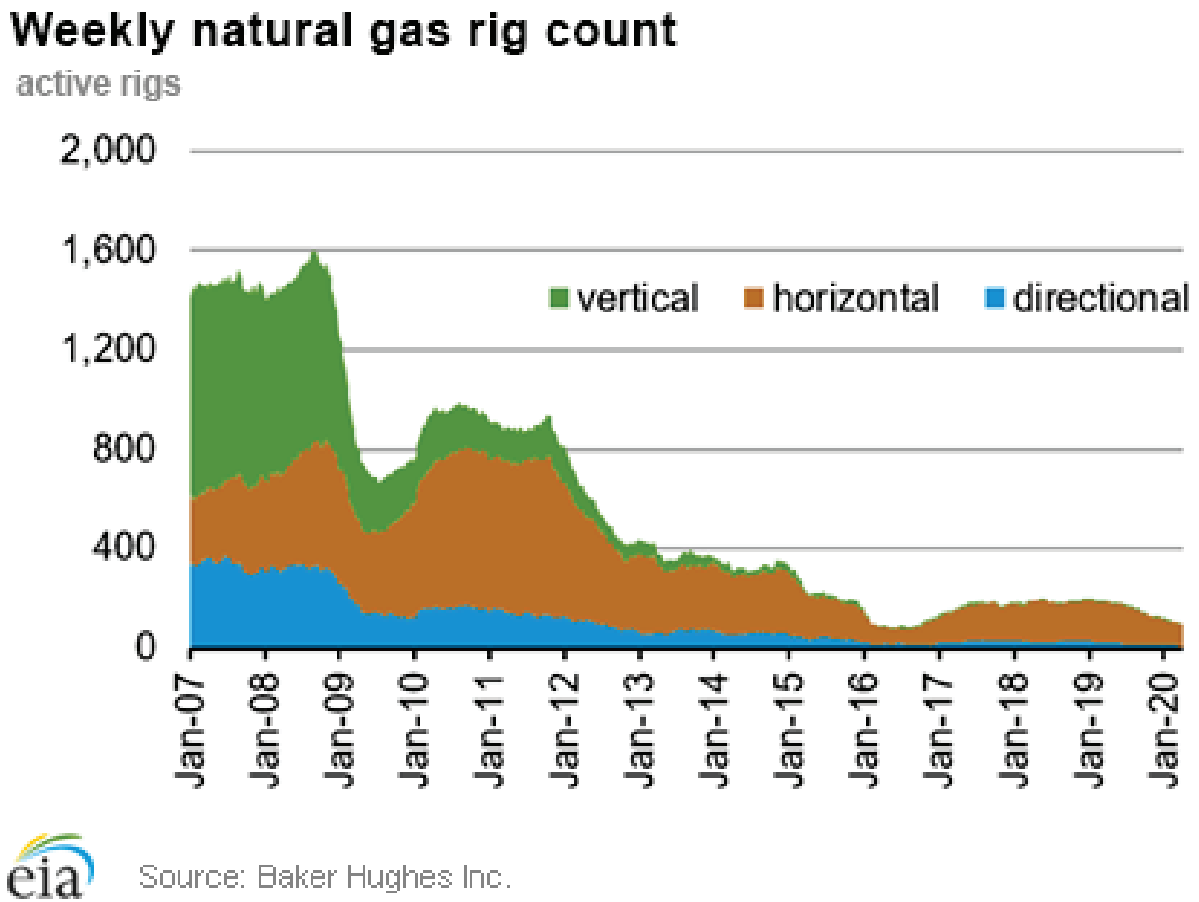
PPS PPA Capacity Factor



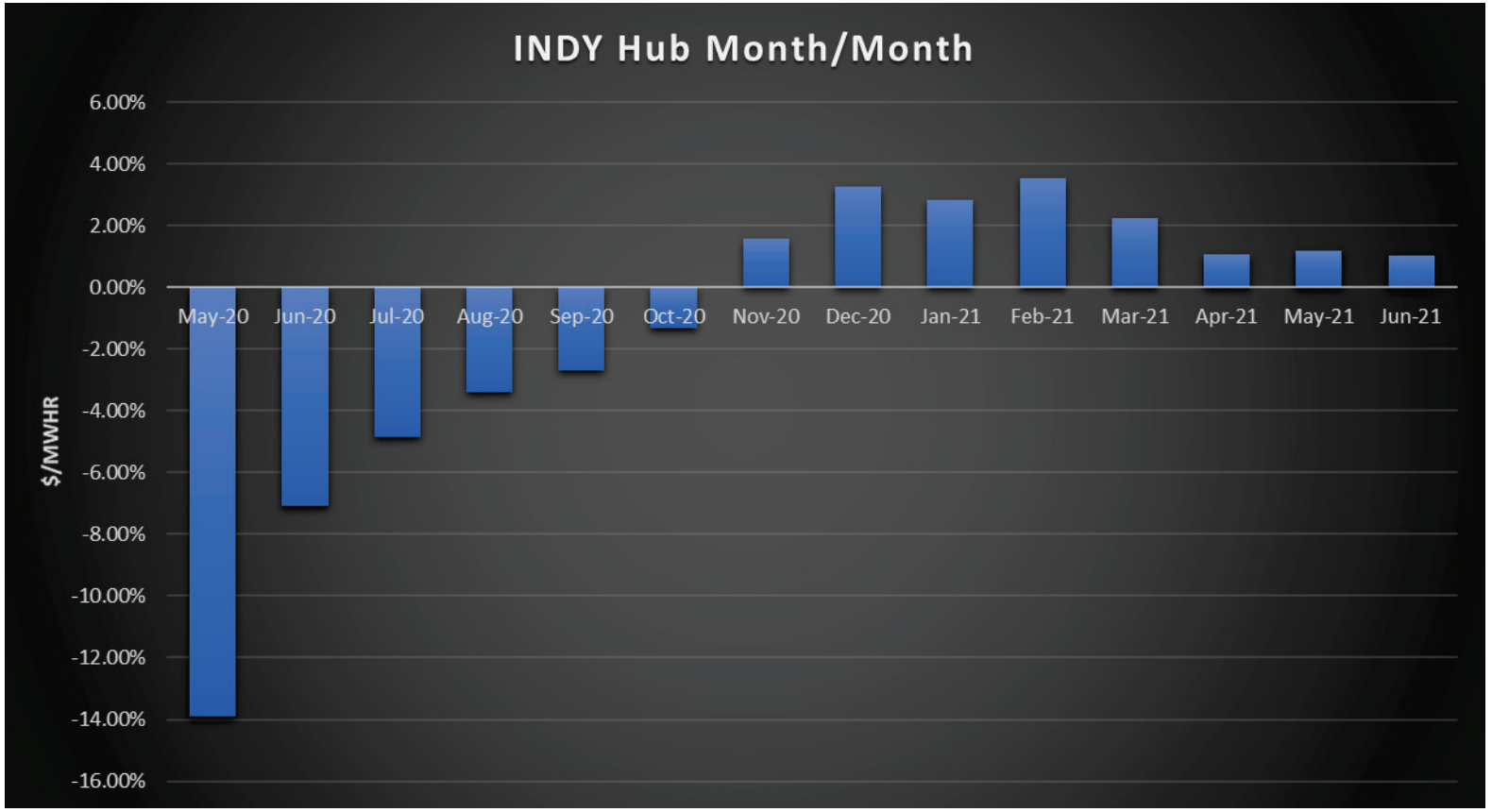
Working Gas in Storage



Weekly Rig Count



Indiana Hub


INDY Hub Month/Month
$/MWHR
6.00%
4.00%
2.00%
0.00%
-2.00%
-4.00%
-6.00%
-8.00%
-10.00%
-12.00%
-14.00%
-16.00%
May-20
Jun-20
Jul-20
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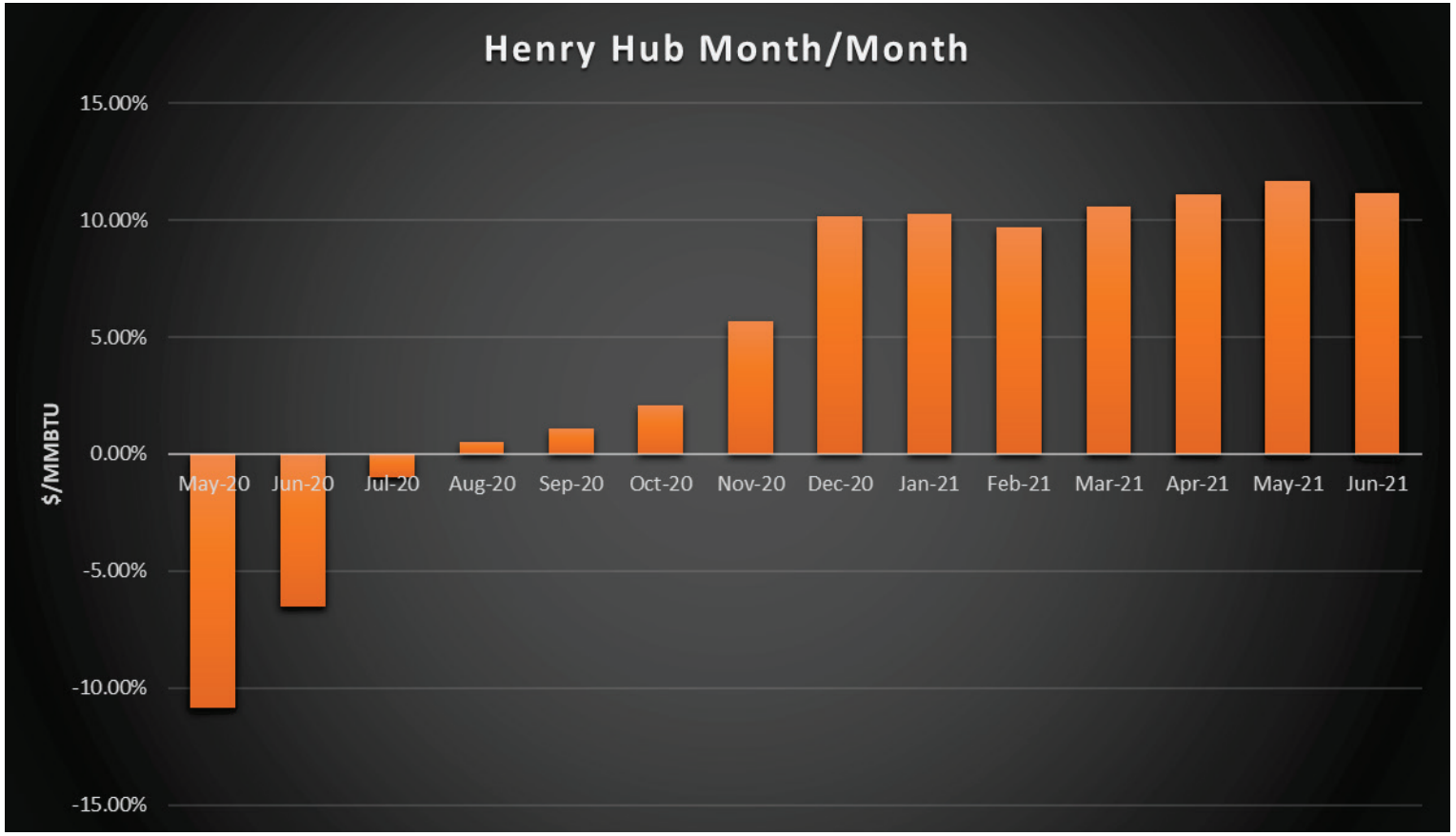
Mar-21
Apr-21
May-21
Jun-21

Henry Hub


Henry Hub Month/Month
15.00%
10.00%
5.00%
0.00%
-5.00%
-10.00%
-15.00%
$/MMBTU
May-20
Jun-20
Jul-20
Aug-20
Sep-20
Oct-20
Nov-20
Dec-20
Jan-21
Feb-21
Mar-21
Apr-21
May-21
Jun-21

Discussion Topics and Miscellaneous Materials

F. Discussion Topics

F.1 Document Retention Policy

F.2 IRP Schedule

F.3 Open Records Items

F.4 Legislation

KENTUCKY MUNICIPAL ENERGY AGENCY
1700 EASTPOINT PKWY, SUITE 220
LOUISVILLE, KY 40223

KYMEA
PUBLIC POWER FOR KENTUCKY

PHONE: (502) 242-5635
FAX: (502) 242-5640
EMAIL: CONTACT@KYMEA.ORG

DOCUMENT RETENTION AND PERIODIC DESTRUCTION POLICY

Policy Purpose

Kentucky Municipal Energy Agency (KYMEA) recognizes that certain federal and Kentucky laws prohibit the destruction of certain documents. As such, KYMEA desires to have a written, mandatory document retention and periodic destruction policy. This policy will eliminate accidental or innocent destruction and inform personnel as to the length of time records should be retained.

Document Destruction

This Document Retention and Destruction Policy identifies the record retention responsibilities of KYEMEA staff, members of the board of directors, and committee members for maintaining and documenting the storage and destruction of the organization's documents and records.

KYMEA staff, members of the board of directors, and committee members are required to honor the following rules:

a. Paper or electronic documents indicated under the terms for retention in the following section will be transferred and maintained under the direction of the President and CEO;

b. All other paper documents will be destroyed after three years;

c. All other electronic documents will be deleted from all individual computers, data bases, networks, and back-up storage after one year;

d. No paper or electronic documents will be destroyed or deleted if pertinent to any ongoing or anticipated government investigation or proceeding or private litigation and

e. No paper or electronic documents will be destroyed or deleted as required to comply with government auditing standards (Single Audit Act).

Record Retention

The following table indicates the requirement for each stated record type.

Type of Document	Minimum Requirement
Accounts Payable Ledgers and Schedules	7 years
Accounts Receivable Ledgers and Schedules	7 years
Accounting Journals	3 years
Annual Report	Permanently
Audit Reports	Permanently
Bank Statements and Reconciliations	3 years
Benefits File	7 years after termination

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Type of Document	Minimum Requirement
Bidder List	2 years
Bid Files – Successful	3 years after completion of contract
Bid Files – Unsuccessful	1 year
Billing Journal / Register	3 years
Board Resolutions	Permanently
Bond Record File	Permanently
Budget	Permanently
Contracts, Notes, and Leases (Expired)	15 years
Contracts (Still in Effect)	Contract period
Correspondence (General)	2 years
Correspondence (Official, Legal, and Important Matters)	Permanently
Correspondence (With Customers and Vendors)	2 years
Deeds, Mortgages, and Bills of Sale	Permanently
Depreciation Schedules	Permanently
Disability Leave Files	7 years
Direct Deposit Transmittal Register (Payroll)	3 years
Employee Direct Deposit Authorization	Until Superseded or Employee Terminated
Employee Grievance File	3 years
Employment Applications – Unsuccessful	2 years
Expense Analyses/Expense Distribution Schedules	7 years
Family Medical Leave Record File	7 years
Fixed Asset Ledger	3 years
Form 1099-MISC	7 years
Grant Administration File	3 years
Insurance Records, Current Accident Reports, Claims, Policies (Active and Expired)	5 years
Internal Audit Reports	3 years

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EMAIL: CONTACT@KYMEA.ORG

Type of Document	Minimum Requirement
Inventory Records for Products, Materials, and Supplies	3 years
Invoices (To Customers, From Vendors)	7 years
Litigation File	10 years after litigation ceases
Meeting Notices and Agendas	1 year
Meter Reading Data	7 years
Minute Books, Bylaws, and Interlocal Cooperation Agreement	Permanently
New Hire Report	7 years
Open Records Register	5 years
Open Records Request Form	1 year
Open Records Appeal	5 years
Organizational Charts	1 copy of each revision, permanently
Real Estate Appraisals	1 year
Payroll Records and Summaries (Pay Period, Monthly, Quarterly)	7 years
Payroll Records and Summaries (Annual)	70 years
Payroll Tax Statements and Returns	7 years
Periodic Financial Statements (Monthly)	3 years
Personnel Files (Application, Name, Last Known Address, Social Security Number, Letters of Recommendation, Employment Beginning and Ending Dates, Retirement Information, Positions Held, Disciplinary Actions, Job Descriptions)	60 years
Personnel Files (All Other Information Not Included Above)	7 years
Personal Medical File	30 years
Policy Guidelines	Permanently
Press Releases	1 year
Publication of Legal Notices	Permanently
Publications Created	Permanently
Retirement Plan Records	Permanently

KENTUCKY MUNICIPAL ENERGY AGENCY
1700 EASTPOINT PKWY, SUITE 220
LOUISVILLE, KY 40223

KYMEA
PUBLIC POWER FOR KENTUCKY

PHONE: (502) 242-5635
FAX: (502) 242-5640
EMAIL: CONTACT@KYMEA.ORG

Type of Document	Minimum Requirement
Surveillance Video/Audio Recording	30 days
Tax Payment Report	7 years
Timesheets	7 years
Trial Balance	1 year
Trademark Registrations and Copyrights	Permanently
Vehicle Information	Destroy after vehicle is no longer owned
Unemployment Insurance Claim File	3 years
W-2 Wage and Tax Statements	7 years
Write-Off of Uncollected Debt	3 Years
Workers' Compensation File	7 years
Year-End Financial Statements	Permanently

KYMEA

Integrated Resource Planning Schedule

Doug Buresh

April 23, 2020

IRP Process - Key Tasks

Integrated Resource Plan: (9-Month Key Tasks)

1. **Development of Inputs and Framework, to identify and develop scenarios, resource options and business strategies to evaluate how a future portfolio might change under different conditions accompanied by detailed model simulations. (Mar - Jul)**
2. **Community Focus Group meeting to identify issues important to the public and develop possible scenarios to broadly address those issues. (Jun 2020)**
3. **Possible site visits with the Board of Directors. (Summer - Fall 2020)**
4. **Analysis and evaluation, to include developing and evaluating the performance of multiple resource portfolios. (Jul - Aug 2020)**
5. **Presentation of Initial Results. (Aug 2020)**
6. **Community Comment Period (Aug 2020)**
7. **Additional Analysis, to be completed in response to the KYMEA Board and other stakeholder comments. (Sep 2020)**
8. **Preliminary Plan, to include the IRP preferred plan, near-term actions and key elements. (Oct 2020)**
9. **Expected Request for Approval of the IRP Preferred Plan from the KYMEA Board. (Nov - Dec 2020)**
10. **Publication of the Final IRP Report by July 2021, on KYMEA's website. (Dec 2020 - Jul 2021)**

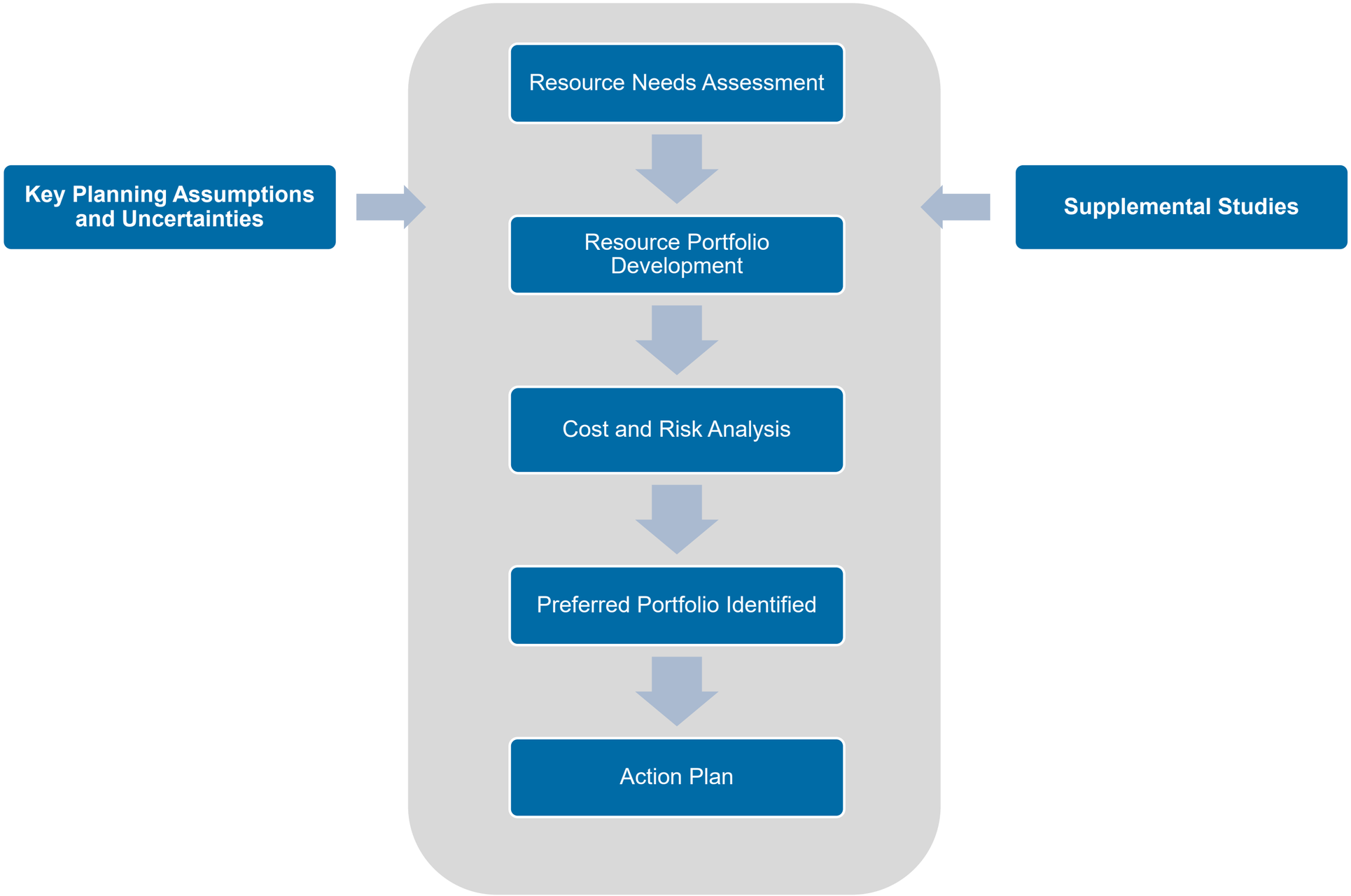
Key Tasks Timeline - 2020

2020

MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC

- Development of Inputs and Framework accompanied by Model Simulations
- Community Focus Group Session
- Possible Site Visits with the Board of Directors
- Analysis and Evaluation
- Presentation of Initial Results
- Community Comment Period
- Additional Analysis
- Preliminary Plan
- Board Action
- Preparation IRP Report

IRP Process Key Elements



Key Decision Points through 2029

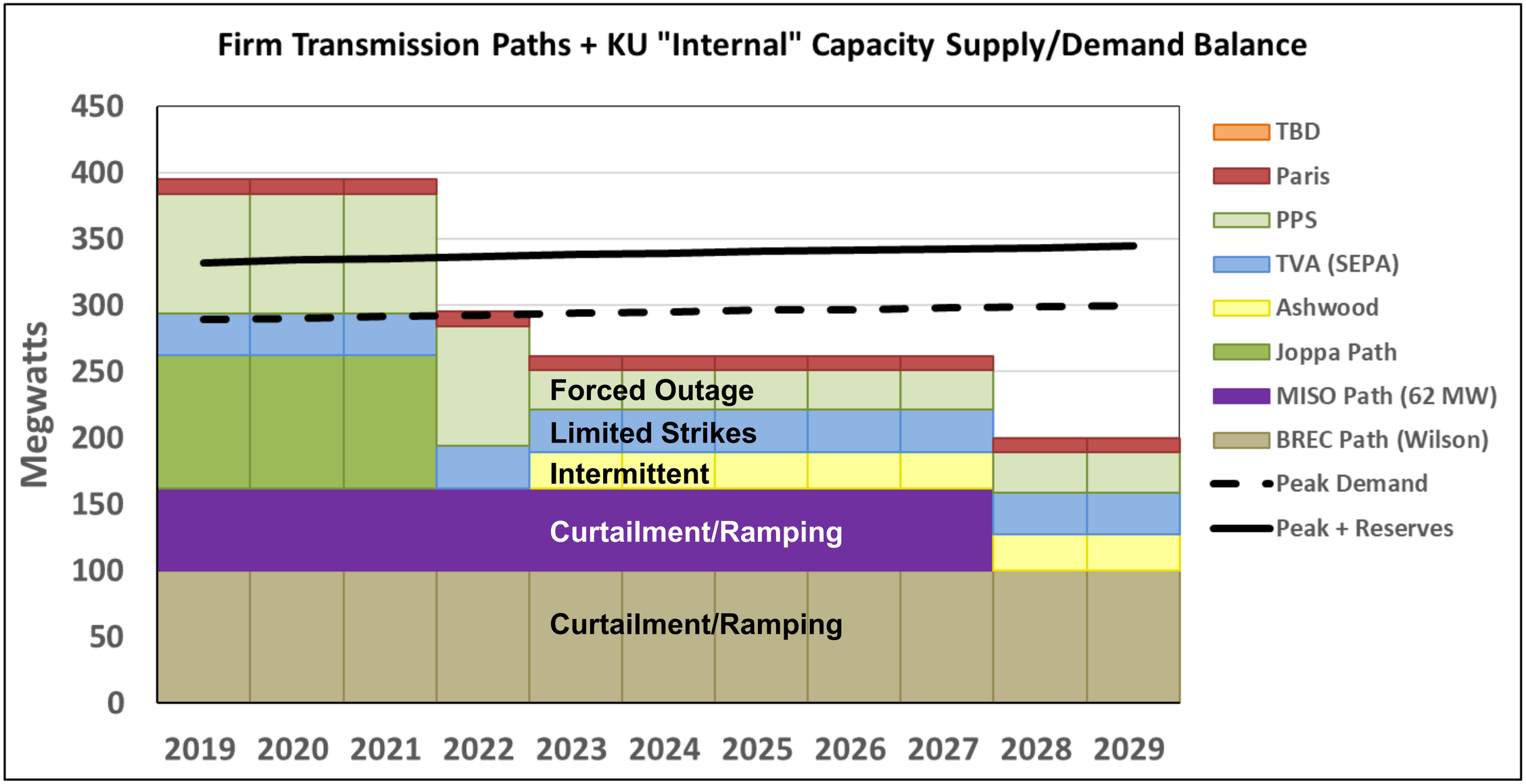
Near-Term Actions

2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029

- Vistra PPA Expires – May 31, 2022
- PPS PPA Nomination - May 31, 2029
- MISO Point-to-Point Path Expires – May 31, 2027
- BREC PPA Expires – May 31, 2029
- Ashwood Solar I PPA Begins – December 1, 2022
- PPS PPA Expires – May 31, 2029
- Paris Member Generation Expires – May 31, 2029
- MISO Point-to-Point Path Expires – May 31, 2029
- Hedging Strategies

20 Year Study: Planning Year from Jun 2022 – May 2042

Deliverability/Reliability



Supply-Side Alternatives

1. Market Purchases with Firm Transmission
2. Steam-Coal Generation
3. Simple Cycle Gas Turbine Natural Gas Generation
4. Combined Cycle Natural Gas Generation
5. Reciprocating Engine Natural Gas Generation
6. Cogeneration Natural Gas Generation
7. Solar Array
8. Battery Storage
9. TBD

New Hydro, New Wind, and New Nuclear are not available to KYMEA

Steam-Coal Generation

KYMEA options include participation in an existing coal unit.

Simple Cycle Gas Turbine

GE Power

Region | Sign in / Register | Contact us | Search

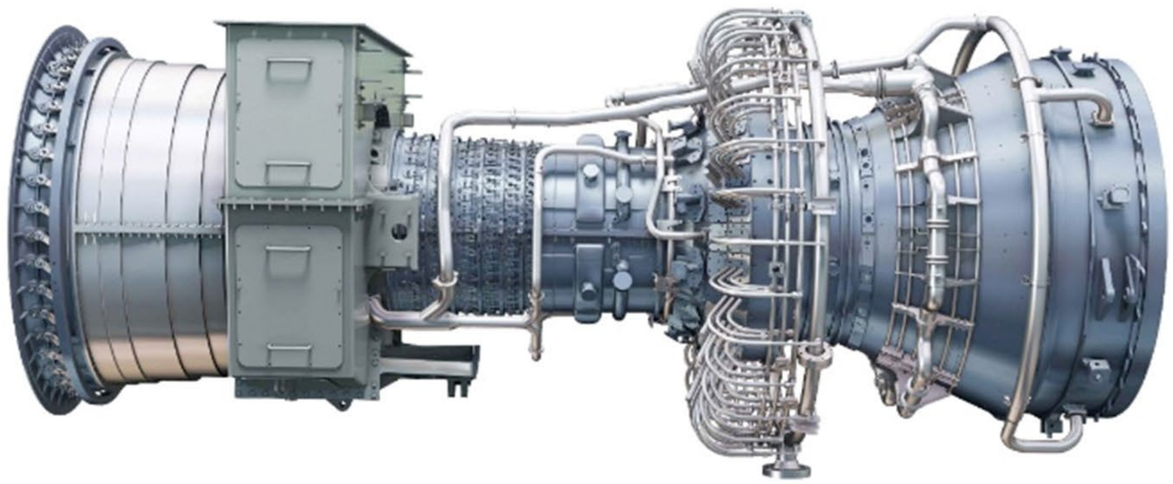
GAS | STEAM | NUCLEAR | SERVICES | INDUSTRIES

HOME • GAS • GAS TURBINES • **LM6000**

AERODERIVATIVE GAS TURBINE

LM6000

VIEW PRODUCT SPECIFICATIONS >



45-58 MW	Up to 41.3%	99.8%/98.7%	5 min.	50 MW/min.
Net output	Net efficiency	Reliability/Availability	Start time	Ramp rate

KYMEA options include ownership in smaller CT or participation in larger CT

Combined Cycle Natural Gas Turbine

GE Power

Region | Sign in / Register | Contact us | Search

GAS | STEAM | NUCLEAR | SERVICES | INDUSTRIES

HOME • GAS • HEAT RECOVERY STEAM GENERATORS

HEAT RECOVERY STEAM GENERATORS (HRSG)

The heat recovery steam generator (HRSG) provides the thermodynamic link between the gas turbines and steam turbines in a combined-cycle power plant. Each HRSG solution is custom-engineered to meet your desired operating flexibility and performance requirements. With more than 750 HRSGs installed worldwide, GE is a world leader in supplying HRSGs behind all major OEM's gas turbines.

DESIGNED FOR YOUR NEEDS

GE's HRSG units are cost-effectively designed for heavy cycling operations that allow owners to reduce the cost of electricity, boost performance, increase reliability, and enhance flexibility. Numerous options are available, such as supplementary firing, SCR for NOx abatement, CO catalyst for emissions reduction, and exhaust gas bypass systems for simple-cycle gas turbine operation in a combined-cycle installation.

KYMEA options include ownership in smaller CC or participation in larger CC

Reciprocating Engines

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

Combined Heat and Power Technology Fact Sheet Series

Reciprocating Engines

Reciprocating internal combustion engines are a mature technology used for power generation, transportation, and many other purposes. Worldwide production of reciprocating internal combustion engines exceeds 200 million units per year.[1] For CHP installations, reciprocating engines have capacities that range from 10 kW to 10 MW. Multiple engines can be integrated to deliver capacities exceeding 10 MW in a single plant. Several manufacturers offer reciprocating engines for distributed power generation, and these engines, which are most often fueled with natural gas, are well suited for CHP service (see Table 1 for summary of attributes).

Reciprocating engine CHP installation at an industrial facility.
Photo courtesy of Caterpillar.

Applications

Reciprocating engines are well suited to a variety of distributed generation applications and are used throughout industrial, commercial, and institutional facilities for power generation and CHP. There are nearly 2,400 reciprocating engine CHP installations in the U.S., representing 54% of the entire population of installed CHP systems.[2] These reciprocating engines have a combined capacity of nearly 2.4 gigawatts (GW), with spark ignited engines fueled by natural gas and other gas fuels accounting for 83% of this capacity. Thermal loads most amenable to engine-driven CHP systems in commercial/institutional buildings are space heating and hot water requirements. The primary applications for CHP in the commercial/institutional and residential sectors are those with relatively high and coincident electric and hot water demand. Common applications for reciprocating engine CHP systems include universities, hospitals, water treatment facilities, industrial facilities, commercial buildings, and multi-family dwellings.

Table 1. Summary of Reciprocating Engine Attributes

Size range	Reciprocating engines for CHP are available in sizes from 10 kW to 10 MW. Multiple engines can be combined to deliver higher capacities. The majority of CHP installations with reciprocating engine are below 5 MW.[2]
Thermal output	Thermal energy can be recovered from the engine exhaust, cooling water, and lubricating oil, and then used to produce hot water, low pressure steam, or chilled water (with an absorption chiller).
Part-load operation	Reciprocating engines perform well at part-load and are well suited for both baseload and load following applications.
Fuel	Reciprocating engines can be operated with a wide range of gas and liquid fuels. For CHP, natural gas is the most common fuel.
Reliability	Reciprocating engines are a mature technology with high reliability.
Other	Reciprocating engines have relatively low installed costs and are widely used in CHP applications. Reciprocating engines start quickly and operate on typical natural gas delivery pressures with no additional gas compression required.

1 Power Systems Research, EnginLink™, 2015.

2 U.S. DOE *Combined Heat and Power Installation Database*, data compiled through December 31, 2015

Technology Description

There are two primary reciprocating engine designs relevant to stationary power generation applications – the spark ignition Otto-cycle engine and the compression ignition Diesel-cycle engine. The essential mechanical components of the Otto-cycle and Diesel-cycle are the same. Both use a cylindrical combustion chamber in which a close fitting piston travels the length of the cylinder. The piston connects to a crankshaft that transforms the linear motion of the piston into the rotary motion of the crankshaft. Most engines have multiple cylinders that power a single crankshaft.

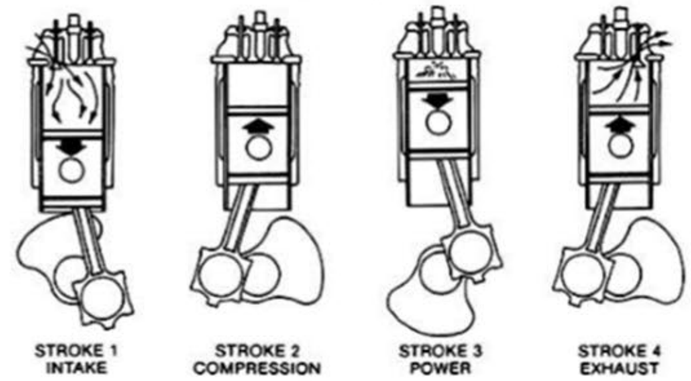


Figure 1. Four-stroke spark ignition reciprocating engine.
Graphic credit IHS Engineering.

The main difference between the two cycles is the method of igniting the fuel. Spark ignition engines (Otto-cycle) use a spark plug to ignite a pre-mixed air fuel mixture introduced into the cylinder. Compression ignition engines (Diesel-cycle) compress the air introduced into the cylinder to a high pressure, raising its temperature to the auto-ignition temperature of the fuel that is injected at high pressure. For CHP, most installations utilize 4-stroke spark ignition engines (see **Figure 1**).

Reciprocating engines are characterized as either rich-burn or lean-burn. Rich-burn engines are operated near the stoichiometric air/fuel ratio, which means the air and fuel quantities are matched for complete combustion, with little or no excess air. In contrast, lean-burn engines are operated at air levels significantly higher than the stoichiometric ratio. In lean-burn engines, engine-out NOx emissions are reduced as a result of lower combustion chamber temperatures compared to rich-burn engines. Most spark ignition and diesel engines relevant to stationary power generation applications complete a power cycle in four strokes of the piston within the cylinder, as shown in Figure 1:

1. Intake stroke - introduction of air (diesel) or air-fuel mixture (spark ignition) into the cylinder.
2. Compression stroke - compression of air or an air-fuel mixture within the cylinder. In diesel engines, the fuel is injected at or near the end of the compression stroke (top dead center, or TDC) and ignited by the elevated temperature of the compressed air in the cylinder. In spark ignition engines, the compressed air-fuel mixture is ignited by an ignition source at or near TDC.
3. Power stroke - acceleration of the piston by the expansion of the hot, high pressure combustion gases.
4. Exhaust stroke - expulsion of combustion products from the cylinder through the exhaust port.

Performance Characteristics

Performance characteristics for five representative natural gas reciprocating engines used in CHP applications are summarized in **Table 2**.

The five systems shown in **Table 2** range from 100 kW to 9.3 MW, which covers most CHP installations that use reciprocating engines. Electric efficiencies generally increase with size, and the electric efficiencies for the five systems range from approximately 30% (System #1) to 42% (System #5). Overall CHP efficiencies are near 80%, ranging from approximately 77% (System #5) to 83% (System #1). As electrical efficiency increases, the quantity of thermal energy available to produce useful heat decreases per unit of power output, and the power to heat ratio generally increases. A changing ratio of power to heat impacts project economics and may affect the decisions that customers make in terms of CHP acceptance, sizing, and the desirability of selling power. For the representative systems in **Table 2**, the power to heat ratio ranges from 0.56 to 1.20. In power generation and CHP applications, reciprocating engines generally drive synchronous generators at constant speed to produce stead alternating current (AC) power. As load is reduced, the heat rate of spark ignition engines increases and efficiency decreases. While gas engines compare favorably to gas turbines—which typically experience efficiency decreases of 15 to 25 percent at half load conditions—multiple engines may be preferable to a single large unit to avoid efficiency penalties where significant load reductions are expected on a regular basis.

Reciprocating Engines (continued)

Table 2. Reciprocating Engine Performance Characteristics

Description	System				
	1	2	3	4	5
Net Electric Power (kW)[3]	100	633	1,141	3,325	9,341
Fuel Input (MMBtu/hr, HHV)[4]	1.15	6.26	10.37	27.73	76.06
Useful Thermal (MMBtu/hr)	0.61	2.84	4.46	10.69	26.60
Power to Heat Ratio[5]	0.56	0.76	0.87	1.06	1.20
Electric Efficiency (%, HHV)	29.6%	34.5%	37.6%	40.9%	41.9%
Thermal Efficiency (%, HHV)	53.2%	45.3%	43.0%	38.6%	35.0%
Overall Efficiency (%, HHV)	82.8%	79.8%	80.6%	79.5%	76.9%

Note: Performance characteristics are average values and are not intended to represent a specific product.

Capital and O&M Costs

Table 3 shows representative capital costs for natural gas reciprocating engines used in CHP applications. The costs are average values based on data collected from multiple manufacturers. Installed costs can vary significantly depending on the scope of the plant equipment, geographical area, competitive market conditions, special site requirements, emissions control hardware, and prevailing labor rates.

Capital costs for generator set packages shown in **Table 3** include all expenses for a complete CHP system, including heat recovery hardware and emission control equipment. The CHP systems shown in **Table 3** are assumed to produce hot water, although reciprocating engines are also capable of producing low pressure steam. With construction and installation included, installed costs range from $2,900 to $1,430 per kW. As indicated, capital costs decline on a per kW basis as size increases. Non-fuel operation and maintenance (O&M) costs are also shown in **Table 3**. As indicated, these costs range from 2.4 to 0.9 ¢/kWh. Like capital costs, O&M costs decline as capacity increases. Maintenance costs vary with type, speed, size, and number of cylinders of an engine. These costs typically include:

- Maintenance labor
- Engine parts and materials (e.g., oil filters, air filters, spark plugs, gaskets, valves, piston rings, electronic components, etc.) and consumables, such as oil
- Minor and major overhauls

Maintenance can either be done by in-house personnel or contracted out to manufacturers, distributors, or dealers under service contracts.

Table 3. Reciprocating Engine Capital and O&M Costs

Description	System				
	1	2	3	4	5
Net Electric Power (kW)	100	633	1,141	3,325	9,341
Engine Type	Rich-burn	Lean-burn	Lean-burn	Lean-burn	Lean-burn
Engine and Generator ($/kW, including heat recovery and emission control)	$1,650	$1,650	$1,380	$1,080	$900
Construction and Installation	$1,250	$1,190	$990	$720	$530
Total Installed Cost	$2,900	$2,840	$2,370	$1,800	$1,430
Total O&M Cost (¢/kWh)	2.4	2.1	1.9	1.6	0.9

Note: Costs are average values and are not intended to represent a specific product.

3 Parasitic electric loads for reciprocating engines are typically small. In this fact sheet, parasitic loads are assumed to be negligible, resulting in no difference between gross and net power.

4 Values in this fact sheet are based on the higher heating value (HHV) of natural gas unless noted otherwise.

5 Power to heat ratio is the electric power output divided by the useful thermal output.

Emissions

Emissions of criteria pollutants —oxides of nitrogen (NOx), carbon monoxide (CO), and volatile organic compounds (unburned, non-methane hydrocarbons, or VOCs)—are the primary environmental concern with reciprocating engines operating on natural gas. **Table 4** shows representative emissions for reciprocating engines operating on natural gas in CHP applications. Emissions can vary significantly between different engine models and manufacturers and can also vary significantly with small changes in operating conditions (e.g., air/fuel ratio). Rich-burn engines have higher uncontrolled NOx emissions compared to lean-burn engines and are almost always supplied with a three-way catalyst to control NOx, CO, and VOC emissions. For lean-burn engines, selective catalytic reduction (SCR) can be used to reduce NOx emissions if needed, and an oxidation catalyst can be used to reduce CO and VOC emissions.

Table 4. Reciprocating Engine Emission Characteristics

Description	System				
	1	2	3	4	5
Electric Capacity (kW)	100	633	1,141	3,325	9,341
Engine Combustion	Rich-burn	Lean-burn	Lean-burn	Lean-burn	Lean-burn
Emissions before Exhaust Treatment (g/bhp-hr)[6, 7, 8]					
NOx	N/A[9]	< 1.0	< 1.0	< 1.0	< 1.5
CO		< 1.5	< 1.5	< 1.5	< 1.5
VOC		< 1.0	< 1.0	< 1.0	< 1.0
Emissions after Exhaust Treatment (g/bhp-hr)[10]					
NOx	0.05	0.05	0.05	0.05	0.08
CO	0.14	0.08	0.08	0.08	0.08
VOC	0.07	0.05	0.05	0.05	0.05
Emissions after Exhaust Treatment (lbs/MWh)[11, 12]					
NOx	0.14	0.15	0.15	0.15	0.22
CO	0.41	0.22	0.22	0.22	0.22
VOC	0.20	0.15	0.15	0.15	0.15
CO_2 Emissions (lbs/MWh)					
Electricity only	1,348	1,157	1,062	975	952
CHP with thermal credit[13]	452	502	491	505	536

Note: Emissions are average values and are not intended to represent a specific product.

Table 4 shows CO_2 emissions for CHP systems based on the power output of the complete CHP system. For the complete CHP system, CO_2 emissions are calculated with a thermal credit for natural gas fuel that would otherwise be used by an on-site boiler. With this thermal credit, CO_2 emissions range from 452-536 lbs/MWh. For comparison, a typical natural gas combined cycle power plant will have emissions of 800-900 lbs/MWh, and a coal plant will have CO_2 emissions near 2,000 lbs/MWh. ■

6 Manufacturers often express an upper limit for emissions performance (e.g., NOx < 1.0 g/bhp-hr). This format is used for emissions data prior to exhaust treatment (also referred to as "engine-out" emissions).

7 CO and VOC emissions for Systems #2, #3, and #4 were not available from product specification sheets, and the values shown are estimates.

8 NOx, CO, and VOC emissions for System #5 were not available from product specification sheets, and the values shown are estimates.

9 Rich-burn engines are typically supplied with a three-way catalyst. Hence, uncontrolled emissions are not reported.

10 For lean-burn engines, exhaust treatment is assumed to reduce emissions by 95%.

11 To convert between g/bhp-hr and lbs/MWh, multiply value in g/bhp-hr by 2.956 to get result in lbs/MWh.

12 NOx, CO, and VOC emissions are based on electric output and do not include a thermal credit.

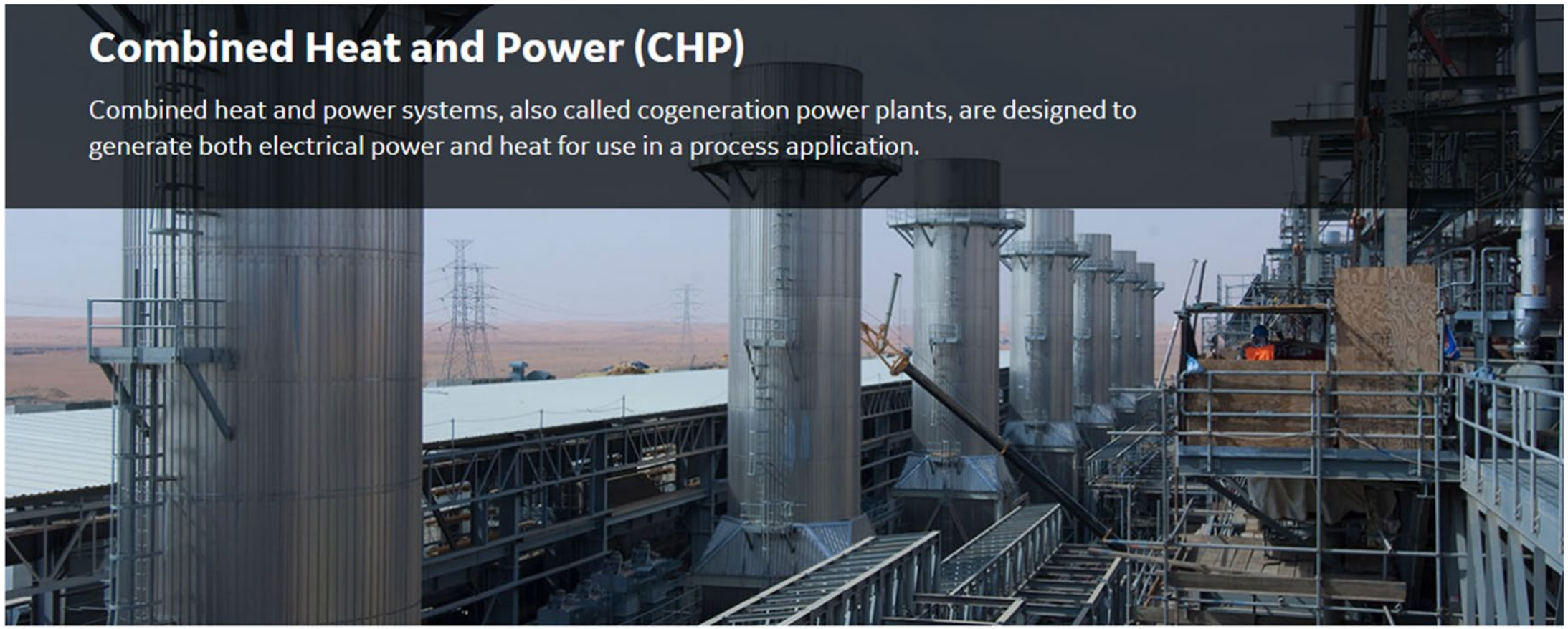
13 The CHP CO_2 emissions include a thermal credit for avoided fuel that would otherwise be used in an onsite boiler. The boiler is assumed to operate on natural gas with an efficiency of 80%.

U.S. DEPARTMENT OF ENERGY
Energy Efficiency & Renewable Energy

For more information, visit the CHP Deployment Program at energy.gov/chp or email us at CHP@ee.doe.gov

DOE/EE-1331 • July 2016

Cogeneration



WHAT IS COGENERATION?

Cogeneration, also known as combined heat and power (CHP), is a highly efficient process that generates electricity and heat simultaneously. By utilizing the exhaust energy from gas turbines, useful steam can be generated in a heat exchanger which can then be used in any number of applications, all with no additional fuel consumption. As a result, the overall efficiency of CHP systems can exceed 80%, making CHP one of the most energy-efficient methods of power generation. With the broadest **gas turbine product portfolio** in the industry, GE is uniquely positioned to provide its customers with the right products to provide the required ratio of power to heat for their CHP systems. For more information on combined heat and power applications, view our **webinar here**.

Cogeneration (continued)

THE BENEFITS OF COGENERATION

By using one fuel source to produce both heat and electricity simultaneously, cogeneration – or combined heat and power - is significantly more efficient and cost effective than traditional power generation. Why? With traditional power generation, electricity and thermal energy are produced separately using two different processes and fuel sources—conventional fossil fuels are used to generate the electricity and, in most cases, the heat produced as a byproduct to this process is lost to the atmosphere. Then an on-site boiler or furnace is used to generate heat.

Cogeneration solutions use a single fuel in a combustion engine, like a gas turbine, to generate electricity. The heat that is created as a result of the process is captured and recycled to provide hot water or steam for other uses—like heating or cooling for the facility. In addition to eliminating waste and increasing energy production efficiency, cogeneration solutions have many advantages.

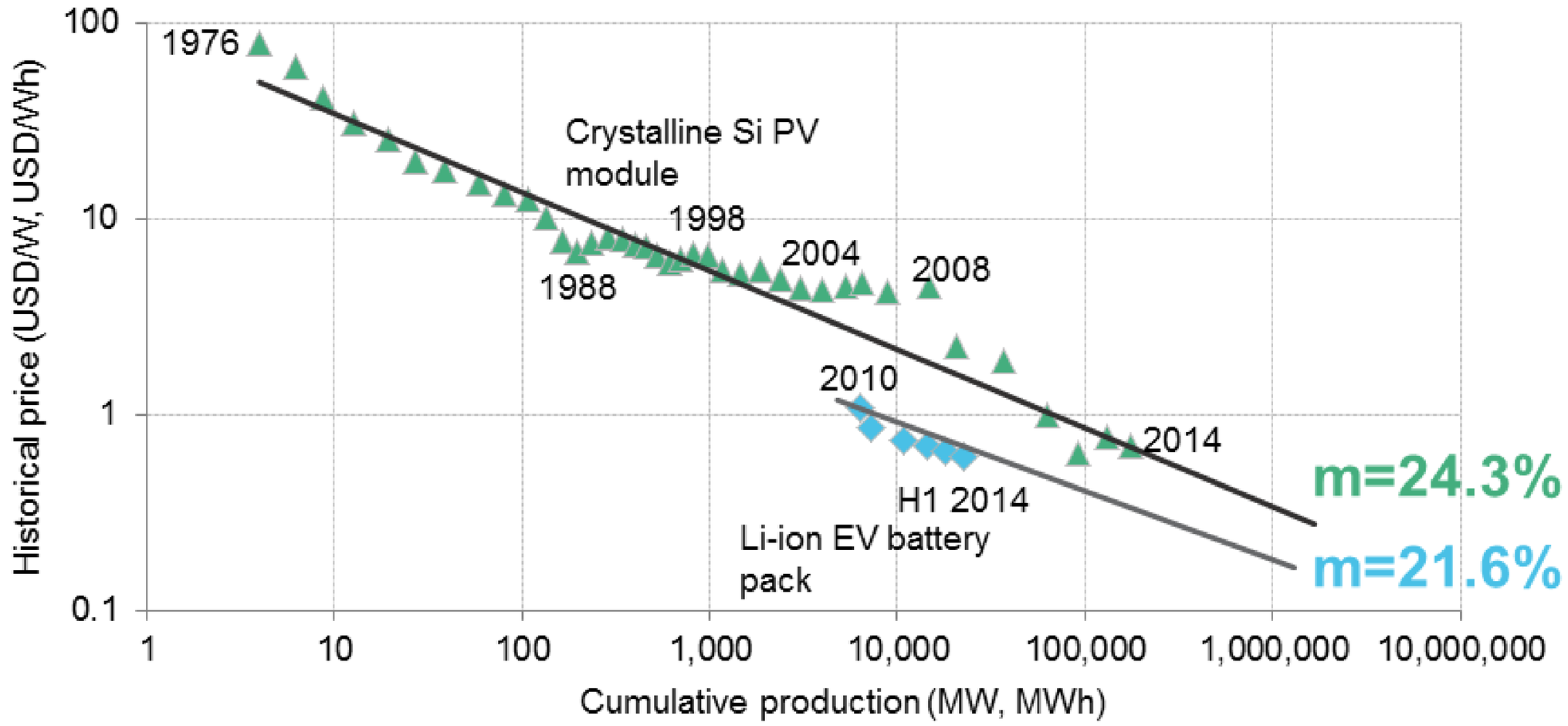
ADVANTAGES OF COGENERATION:

- *Save money* - Achieve up to 95% percent total efficiency, burn less fuel for the energy you need, and reduce thermal and electrical costs creating a payback in as little as 2 years.
- *Save energy* - Realize energy savings of up to 40% using the energy from your turbine's waste heat.
- *Increase predictability* – Predict against grid power price volatility and supply uncertainty for more accurate financial planning.
- *Increase reliability* - Achieve 98% reliability or more with the proven technology of GE's aeroderivative gas turbines.
- *Energy reform benefits* - Benefit from government energy reforms and associated incentives (green certificates and "efficient cogeneration") promoting self power generation.
- *Reduce emissions* - With combined heat and power, you can make sure you're meeting government regulations by reducing your greenhouse gas emissions by up to 30%.

Solar and Battery Experience Curve

LITHIUM-ION EV BATTERY EXPERIENCE CURVE COMPARED WITH SOLAR PV EXPERIENCE CURVE

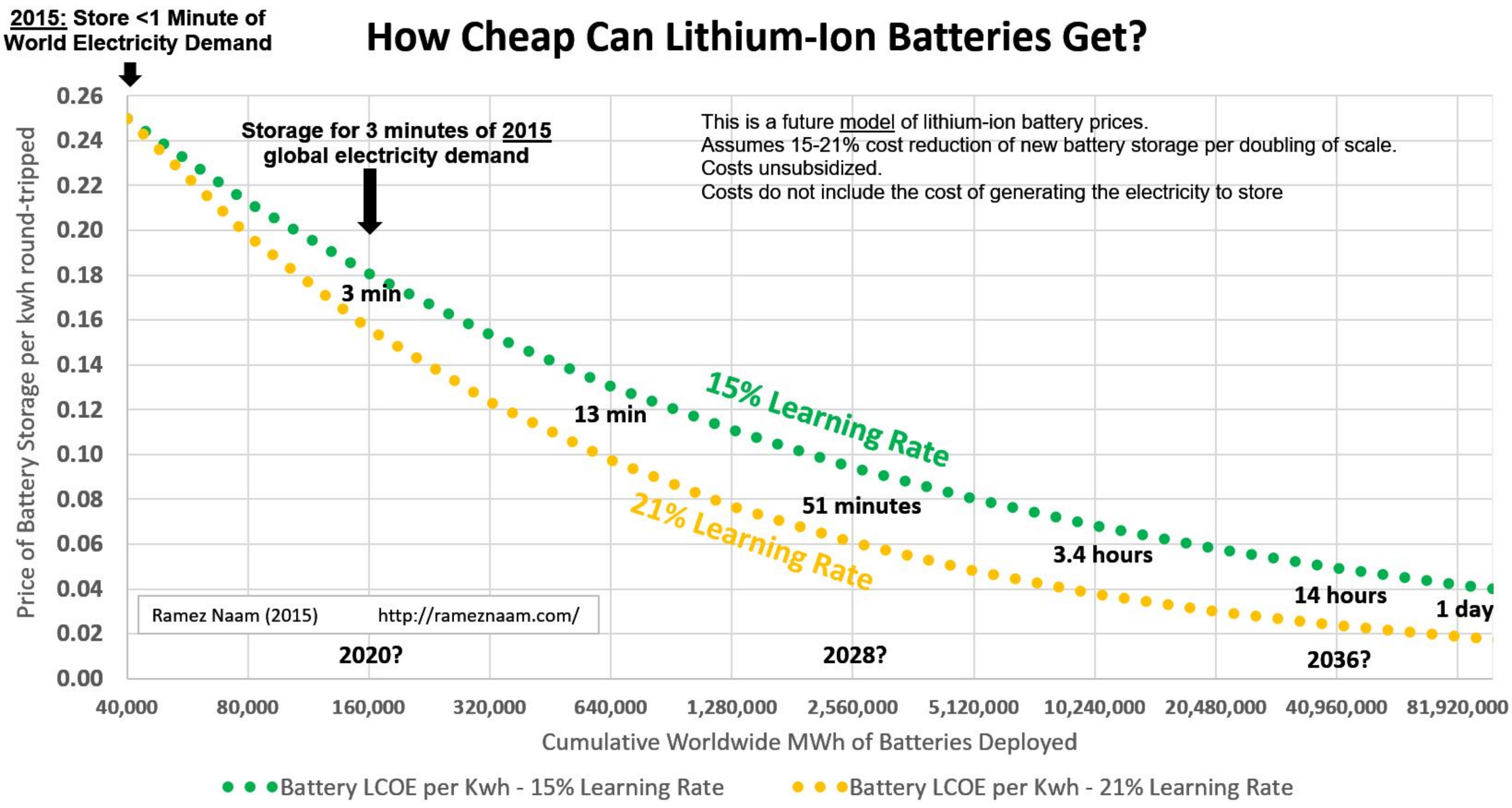
Bloomberg NEW ENERGY FINANCE



Note: Prices are in real (2014) USD.

Source: Bloomberg New Energy Finance, Maycock, Battery University, MIT

Battery Learning Rate Projection



Demand-Side Management Alternatives

1. Peak Clipping
2. Energy Efficiency Programs
3. Distributed Energy Resources
4. TBD

EnCompass Modeling

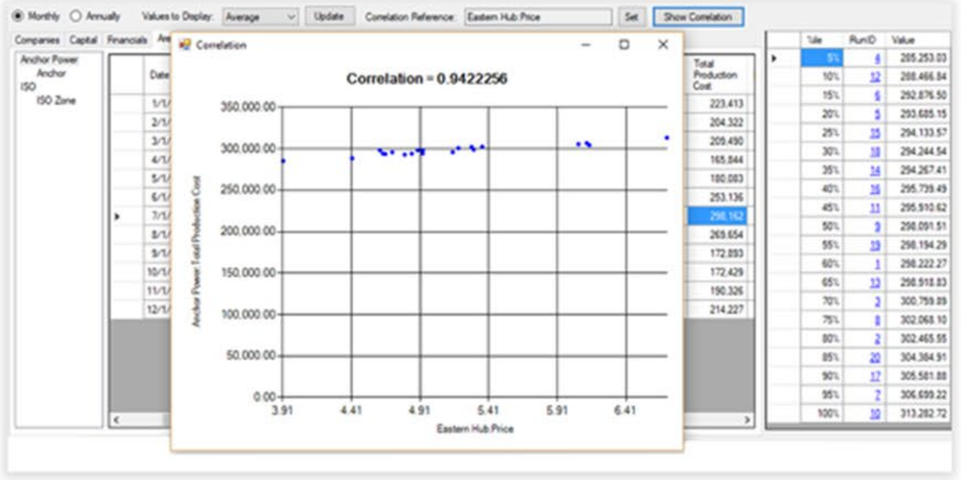
Integrated Resource Planning

We help electric utilities face the complexity in power supply planning, as well as balancing requirements for reliability and environmental compliance in the most cost-effective manner. EnCompass determines not only the best way to utilize resources, but also which technologies should be added in the future, or existing resources that should be converted or retired.

Integrated Resource Planning

Valuation and Risk Assessment

Projecting future operations and cash flows of either a single power project or a portfolio of energy assets requires a detailed commitment and dispatch optimization model to capture all operating constraints. Valuations produced by Anchor Power can be used for project finance, tax assessments, budgeting, rate cases, and developing hedging strategies.



Valuation & Risk Assessment

Progress to date: The EnCompass database has been built and staff is currently running simulations and analyzing preliminary results.

AR Project Committee Meeting

G. AR Project Committee Meeting

G.1 FY 2021 AR Rates (action item)

Motion to recess the KYMEA Board meeting in order to allow the KYMEA All Requirements Project Committee to meet to consider the establishment of the AR Rate Schedule. The KYMEA Board will reconvene its meeting immediately upon the adjournment of the All Requirements Project Committee.

KYMEA

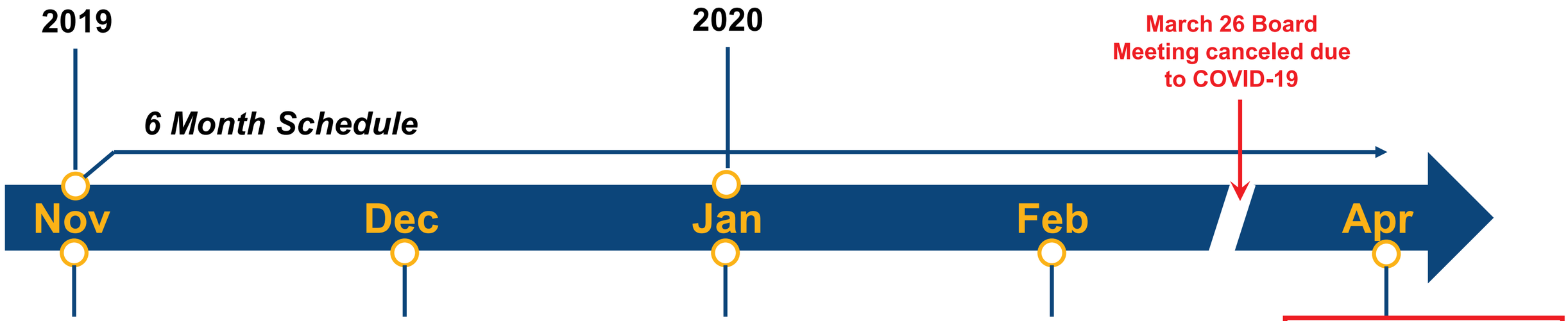
AR Project
FY2021 Rates

KYMEA COVID-19 Rate Relief Plan

April 23, 2020

Doug Buresh

FY2021 AR Rate Process



Staff

- Plan FY2021 Activities
- Prepare Preliminary Budget for Budget Committee

❑ A&G

❑ Capital

Budget Committee

- Staff Presents Preliminary Budget to Budget Committee (11/19/2019)

Staff

- Prepare Revised Budget for Budget Committee
- Prepare for Current Year Pro Forma for AR Workshop

Budget Committee

- Staff Presents Revised Budget for Approval (12/17/2019)

AR Rate Workshop

- Staff Presents Current Year Pro Forma for AR Workshop (12/18/2019)

Staff

- Prepare FY2021 AR Rate Design

AR Rate Workshop

- Staff Presents Preliminary AR Rate Design (1/22/2020)

Board

- Staff/Budget Committee Presents Budget (1/23/2020)

Staff

- Prepare Preliminary FY2021 AR Rates

AR Project Committee

- Staff Presents Preliminary AR Rate Rates (2/27/2020)

Board

- Budget Approval (2/27/2020)

Staff

- Prepare Final FY2021 AR Rates

AR Project Committee

- AR Rate Approval (4/23/2020)

Board

- AR Rate Approval (4/23/2020)

Agenda

FY2021 Financial Pro Forma and Rates

1. Executive Summary
   - FY2021 All Requirements Rates and Financial Metrics
   - Power Supply Savings since FY2018
   - Projected Net Income
2. AR Rates and ECA
   - AR Rate Making Methodology
   - ECA Collection/Refund Methodology
3. Risk Assessment
   - Uncertainties
   - Net Income
   - Risk Profile
   - Tornado Chart
4. KYMEA COVID-19 Rate Relief Plan
5. Discussion/Actions

Executive Summary

All Requirements Rates

- **Power Supply Only: All Requirements (AR) Power Supply Rate decrease of 5.32% from FY2020 (Act/Bud).**
- **Transmission: Estimated NITS Rate increase of 11.4%. Transmission Members will pay actual rate when known.**
- **Overall: The Overall All Requirements (AR) Rate decreases 4.19% from FY2020 (Act/Bud). AR Member savings of $3.6 million.**

  - ***Billing Demand Rate: $14.044 per kW-MO***
  - ***Energy Rate: $0.024702 per kWh***
  - ***Reserve Fund Rate: $1.535 per kW-MO***

Projected Financial Metrics

- **Net Income: $1.327 million**
- **Days Cash on Hand: 62.652 Days**
- **Coverage of Full Fixed Obligations: 1.027**
- **Leverage: 7.516**

Working Capital and Stabilization Fund

Operations Cash Flow (Intra-Month Timing)

- **To account for timing differences between accounts receivable and accounts payable, the agency maintains $10 million in cash.**

Credit

- **The agency is required to maintain a cash collateral account balance held by MISO and PJM (≈ $3 million).**

Hedging

- **Energy: For a 50 MW annual strip, a dollar change in price equals $438,000.**
- **Financial Transmission Rights (FTR): Cash collateral required to participate in FTR auctions.**

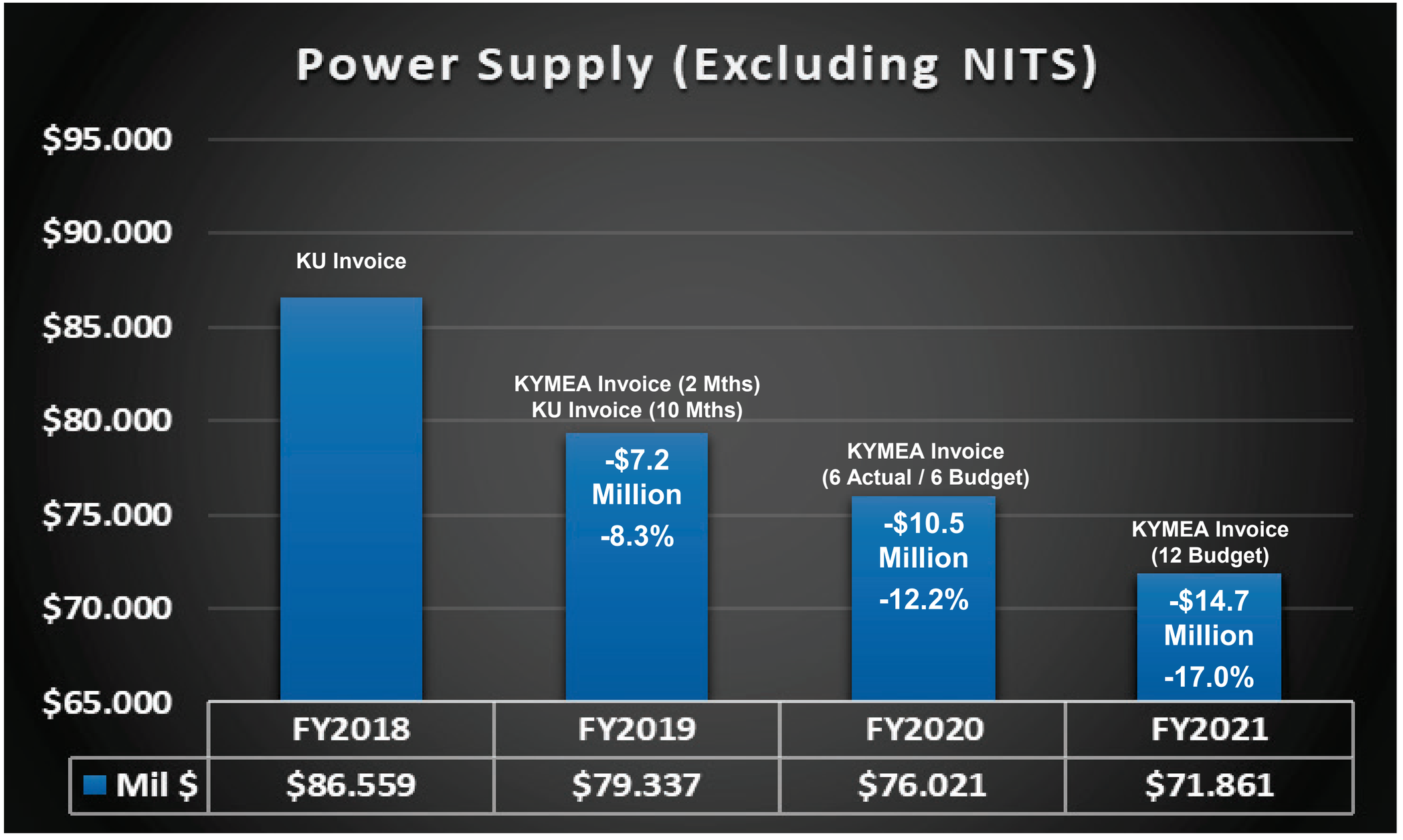
Stabilization Fund

- **Fund available for net income and future rate stabilization.**

FY2020 6 Actual / 6 Projected vs FY2021 Rates

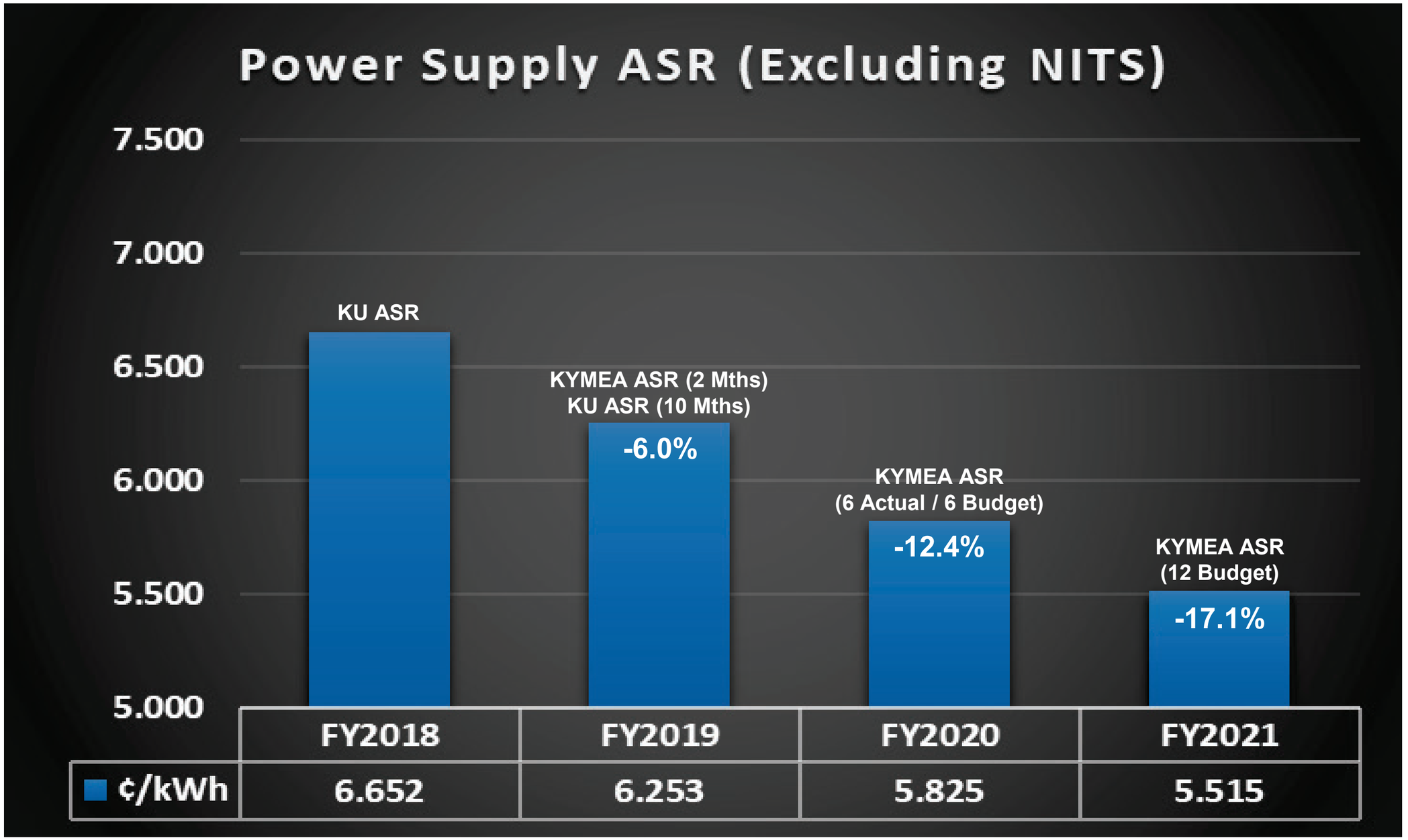
	FY2020 6 Month Actual/6 Month Budget			FY2021 (62 DCOH Driver) - Deterministic			Change
	$/kW-mo	kW	$	$/kW-mo	kW	$	$
Billing Demand	$13.207364	2,730,822	$36,066,956	$14.043800	2,641,566	$37,097,625	$1,030,669
	$/kWh	kWh	$	$/kWh	kWh	$	$
Energy	$0.024279	1,305,181,431	$31,688,500	$0.024702	1,303,112,487	$32,189,485	$500,985
ECA	$0.000000	1,305,181,431	$0	$0.000000	1,303,112,487	$0	$0
Transmission	$/kW-mo	kW	$	$/kW-mo	kW	$	$
KU Transmission 12-CP	$2.463300	2,601,733	$6,408,848	$2.773611	2,516,985	$6,981,137	$572,288
MISO Transmission NCP	$3.531000	2,731,273	$9,644,126	$1.534664	2,644,185	$4,057,936	-$5,586,191
PJM Transmission 1-CP	$2.520917	41,400	$104,366	$2.958179	38,400	$113,594	$9,228
KU Direct Assigned Facilities			$			$	$
Fixed Facility Charges			$213,839			$213,839	$0
SEPA Member Resource Credit	$/kW-mo	kW	$	$/kW-mo	kW	$	$
Capacity Payment	($3.850000)	412,454	-$1,587,949	($3.850000)	440,896	-$1,697,450	-$109,501
AR Project Member Invoice			$82,538,686			**$78,956,165**	-$3,582,522
			6.324 ¢			**6.059 ¢**	-0.265 ¢
Decrease from FY2020 6 Actual / 6 Budget						**-4.19%**	-4.19%
AR Project Member Power Supply (Without NITS)			$76,025,472			$71,861,434	-$4,164,038
			5.825 ¢			5.515 ¢	-0.310 ¢
Decrease from FY2020 Actual/Budget (Without NITS)						-5.33%	-5.33%
Net Income			$10,451,870			$1,327,475	-$9,124,394
Days Cash On Hand (FYE)			55.145			62.652	7.507
Coverage of Full Fixed Obligations (FYE)			1.230			1.027	-0.203
Leverage (Net Adjusted Debt / Adjusted FADS (x))			6.260			7.516	1.256

Member Power Supply Expense (FY2018 - FY2021)



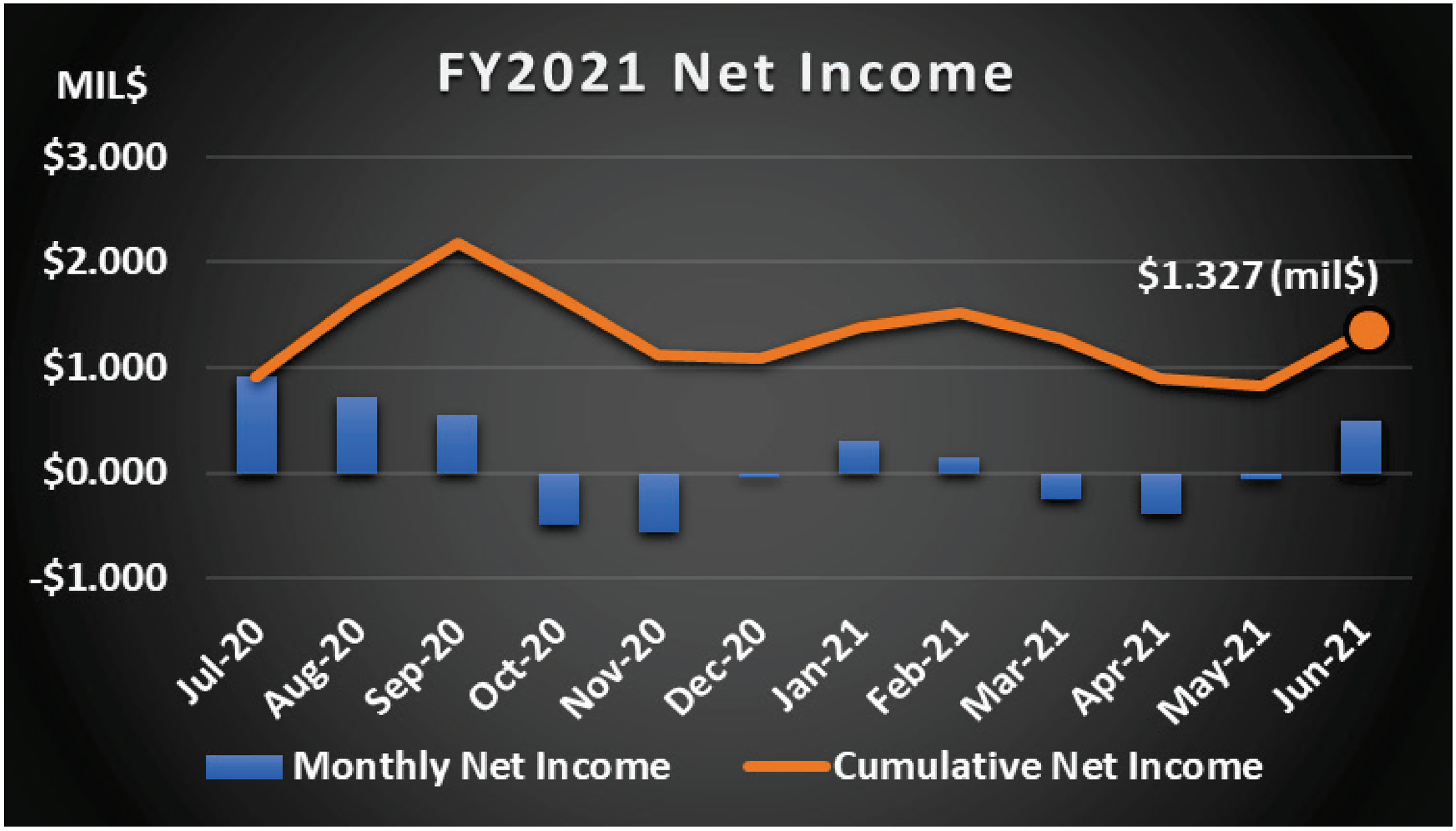
Note: Comparison based on actual and projected power bill invoices

Member Average System Rate (FY2018 - FY2021)



Note: Comparison based on actual and projected average system rate from power bill invoices

Net Income (FY2021)



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FY2021 Financial Pro Forma and Rates

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2. **AR Rates and ECA**
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   - **ECA Collection/Refund Methodology**
3. Risk Assessment
   - Uncertainties
   - Net Income
   - Risk Profile
   - Tornado Chart
4. KYMEA COVID-19 Rate Relief Plan
5. Discussion/Actions

Rate Setting Methodology and Projected Financial Metrics

Rate Setting Methodology

1. Rates are set using cost-of-service recovery to meet the fiscal year-end Days Cash on Hand (DCOH) Minimum Target.
2. The AR Project chose a FY2021 Minimum Target of 62 DCOH

Rates

- Billing Demand Rate: $14.044 per kW-MO
- Energy Rate: $0.024702 per kWh
- Reserve Fund Rate: $1.535 per kW-MO

Projected Financial Metrics

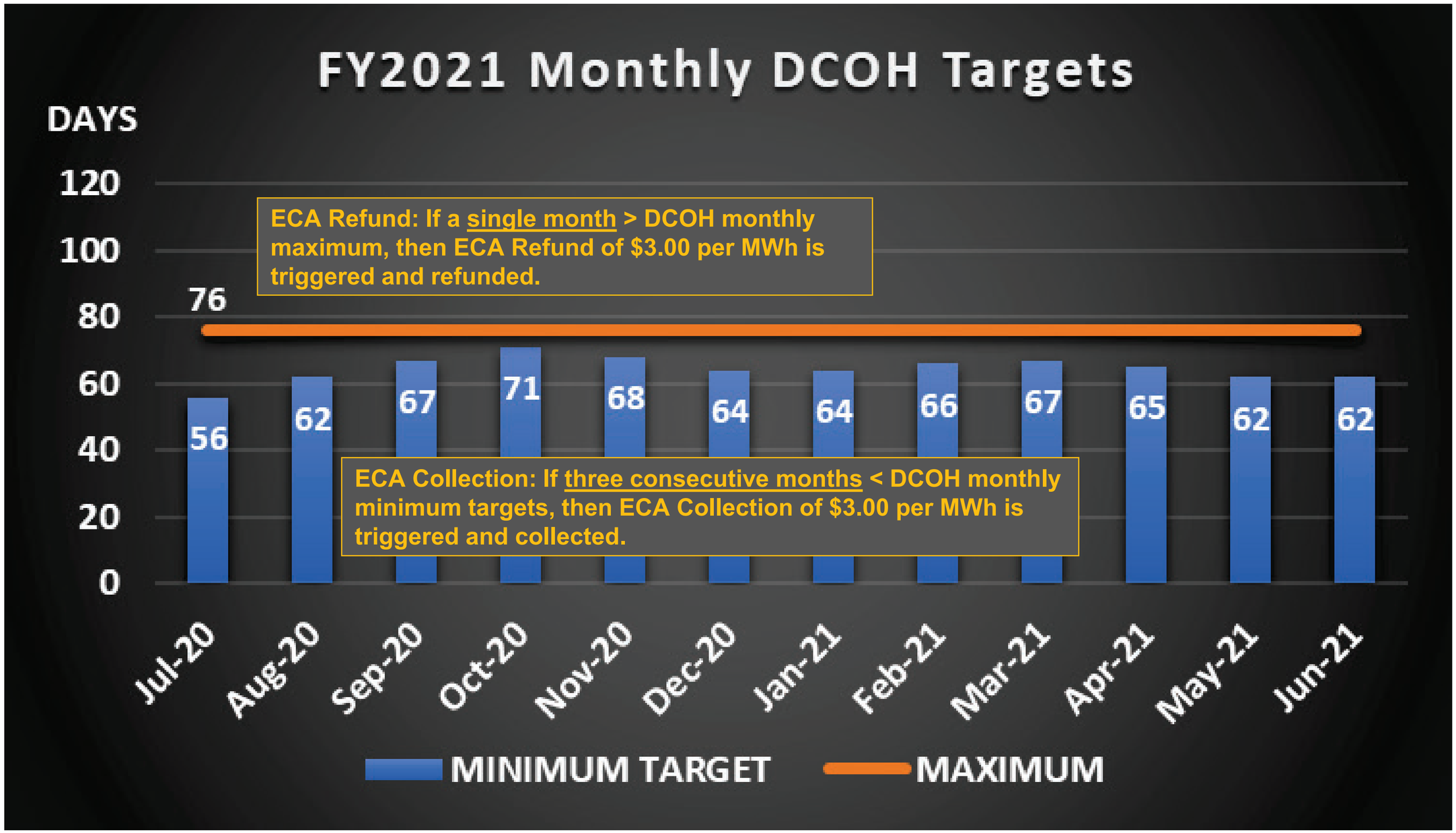
- Net Income: $1.327 million
- Days Cash on Hand: 62.652 Days
- Coverage of Full Fixed Obligations: 1.027
- Leverage: 7.516

Energy Cost Adjustment (ECA) Methodology

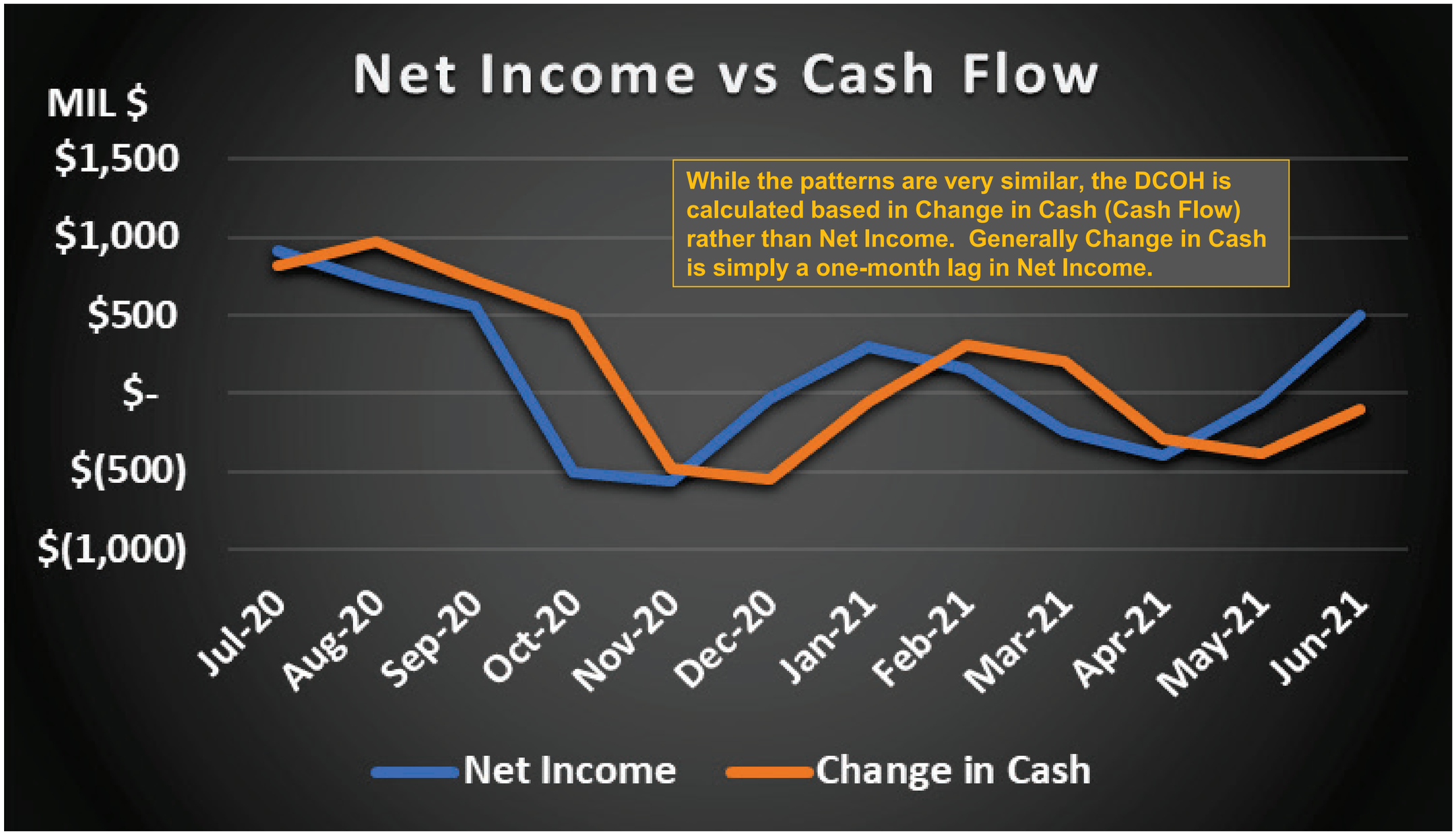
ECA Methodology

1. The Minimum Target DCOH varies monthly based on projected cash flows with a fiscal year-end target of 62 DCOH.
2. The monthly targets reflect the timing differences between accounts payable and accounts receivable.
3. The Maximum DCOH reflects the level at which the agency would begin refunding to the AR Members.
4. ECA Collection: If, for a period of three consecutive months, the computed average Days Cash On Hand for the three consecutive months < the average computed Minimum Target Days Cash On Hand for three consecutive months, then the ECA shall be computed and collected.
5. ECA Refund: If, for a single month, the Days Cash On Hand > the Maximum Days Cash On Hand, then the ECA shall be computed and refunded.

FY2021 Monthly DCOH Boundaries



Monthly Net Income vs Cash Flow



New Energy Cost Adjustment Methodology

1. **Replace Existing Energy Cost Adjustment 1 and Energy Cost Adjustment 2 with a new singular Energy Cost Adjustment.**

   <u>Revenue Requirements Driver:</u>

   - Meet the Agency's Annual Days Cash on Hand Target

   - Addresses PPA Energy (and non-PPA Energy) Cost Uncertainty

   - Addresses Demand Uncertainty

   - Incorporates the Benefits of Economy Purchases and Sales

   - Allows the Agency to automatically refund cash to the AR Project Members during particularly good years.

2. **Incorporates Discipline into the Cost-Of-Service Rate Making and Days Cash on Hand Target**

3. **The purpose of the Energy Cost Adjustment (ECA) is akin to course corrections when navigating a large ship. As the ship gets blown off course due to unforeseen circumstances, the course is adjusted to guide it back on the desired path.**

Rate Setting Methodology and Rates and Energy Cost Adjustment (ECA)

Rate Setting Methodology

1. Rates are set using cost-of-service recovery to meet the year-end Days Cash on Hand (DCOH) Target.
2. ECA Collection: If three consecutive months < DCOH monthly target, then ECA Collection of $3.00 per MWh is triggered and collected. The collection occurs on the next month's power invoice.
3. ECA Refund: If a single month > DCOH monthly maximum, then ECA Refund of $3.00 per MWh is triggered and refunded. The refund occurs on the next month's power invoice.

Rates

- Billing Demand Rate: $14.044 per kW-MO
- Energy Rate: $0.024702 per kWh
- Reserve Fund Rate: $1.535 per kW-MO

Projected Financial Metrics

- Net Income: $1.327 million
- Days Cash on Hand: 62.652 Days
- Coverage of Full Fixed Obligations: 1.027
- Preferred Leverage: 7.516

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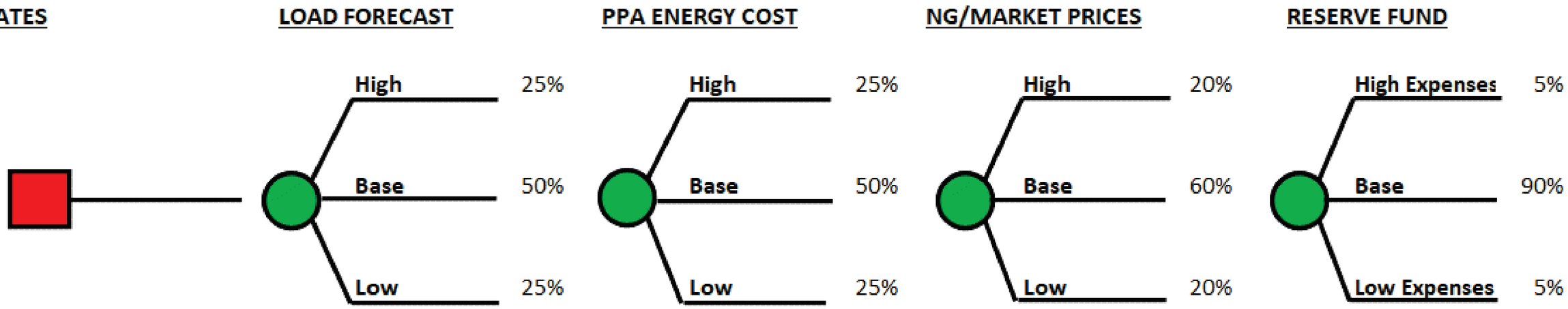
Risk Assessment



Decision Node
Revenue Requirements Driver:
- Cost-Of-Service Rate Recovery
- 62 DCOH Target

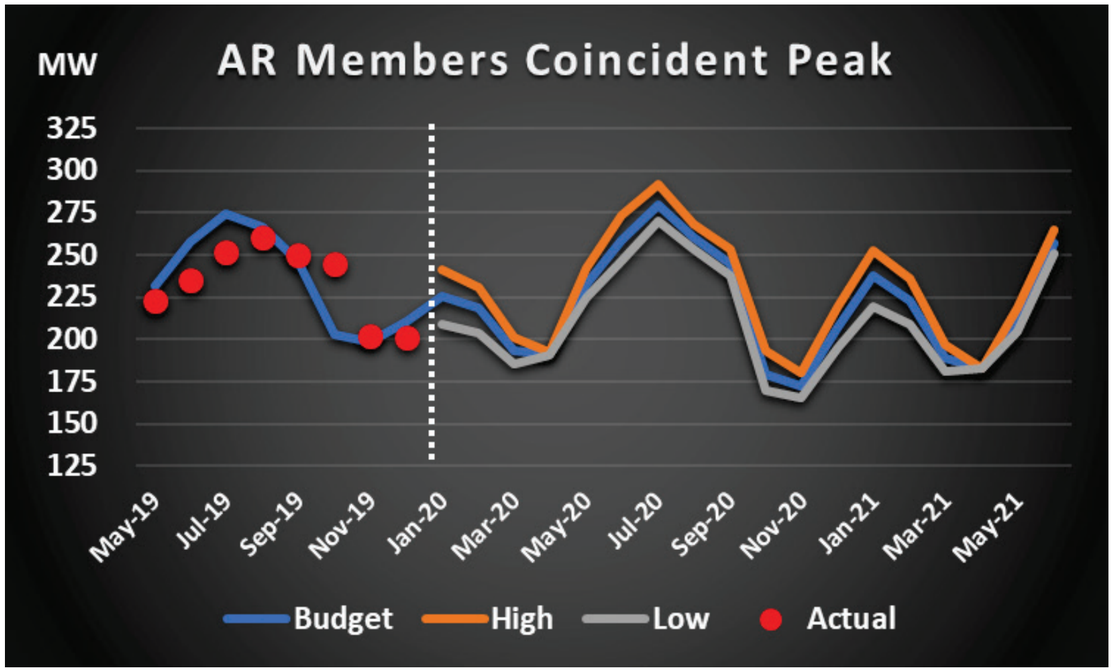
Base Case
- Load: Base
- PPA Energy: Base
- Market: Base
- Reserve Fund: Base

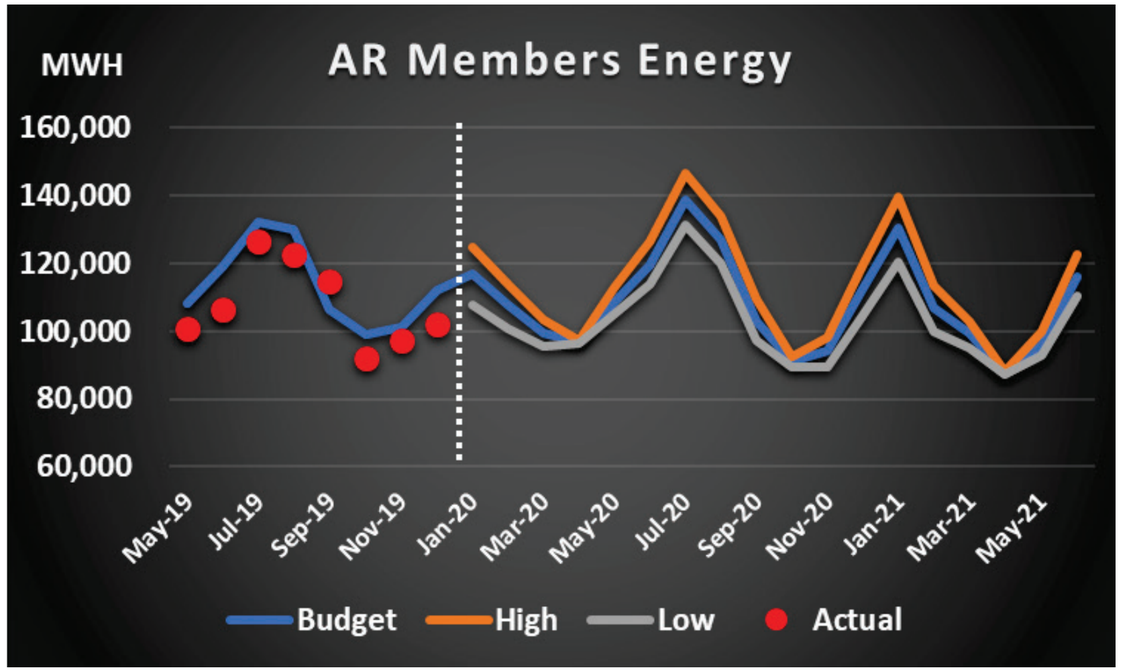
Uncertainties/Risks
- Load Forecast (Demand/Energy Sales Risk)
- PPA Coal (Heat Rate Call Option Strike Price Risk)
- NG/Market Prices (Market Price Risk)
- Reserve Fund (Uncertain Transmission Expenses)

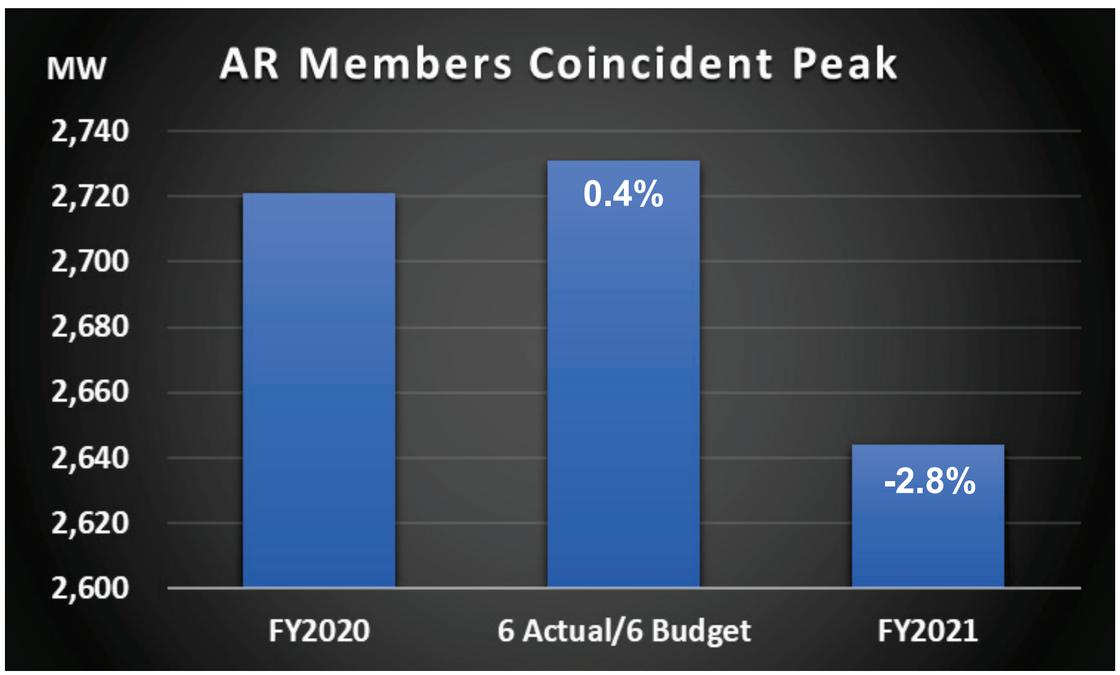
**** 81 Possible Outcomes *** (subjective probabilities)*

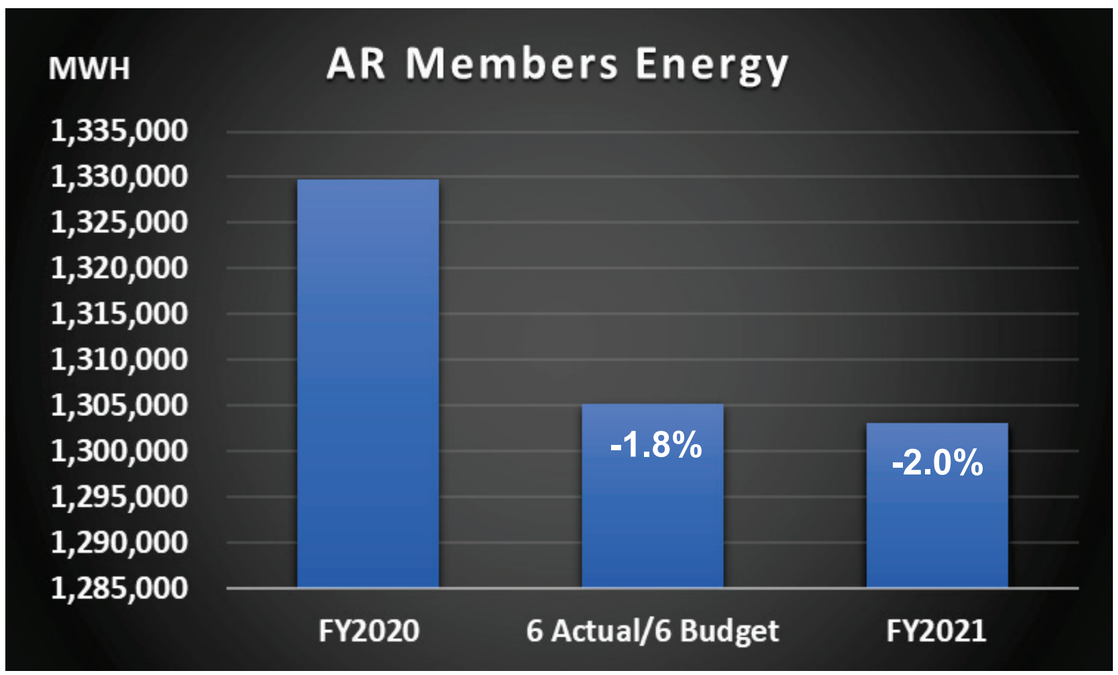
Financial Metrics
- Net Income
- Days Cash On Hand
- Coverage of Full Fixed Obligations
- Preferred Leverage

Load Forecast Uncertainty







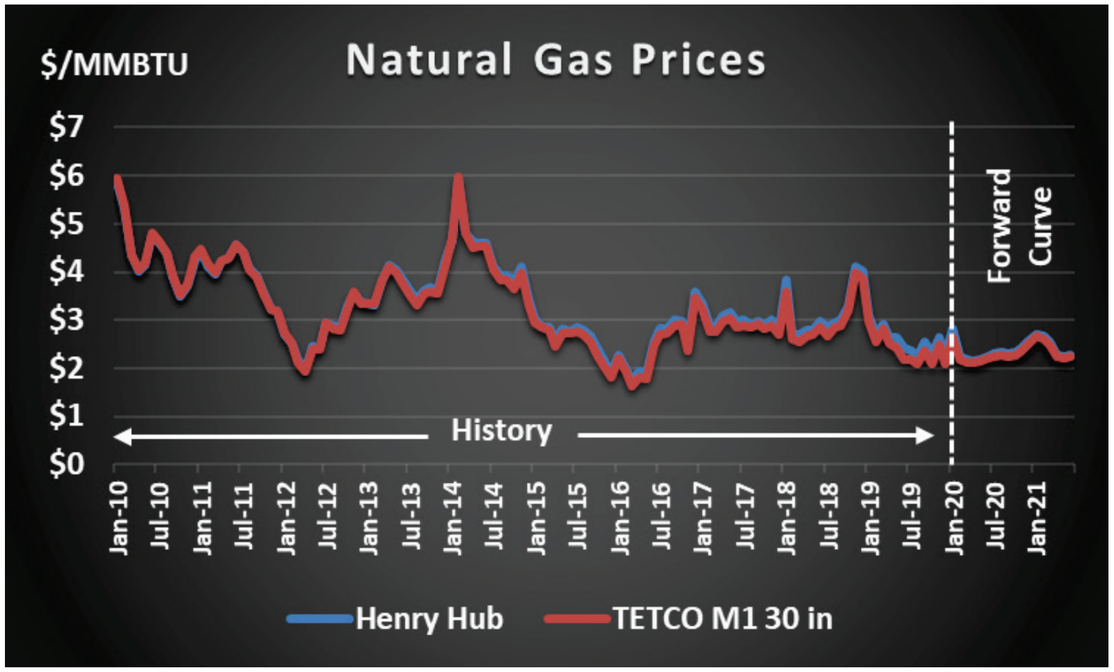


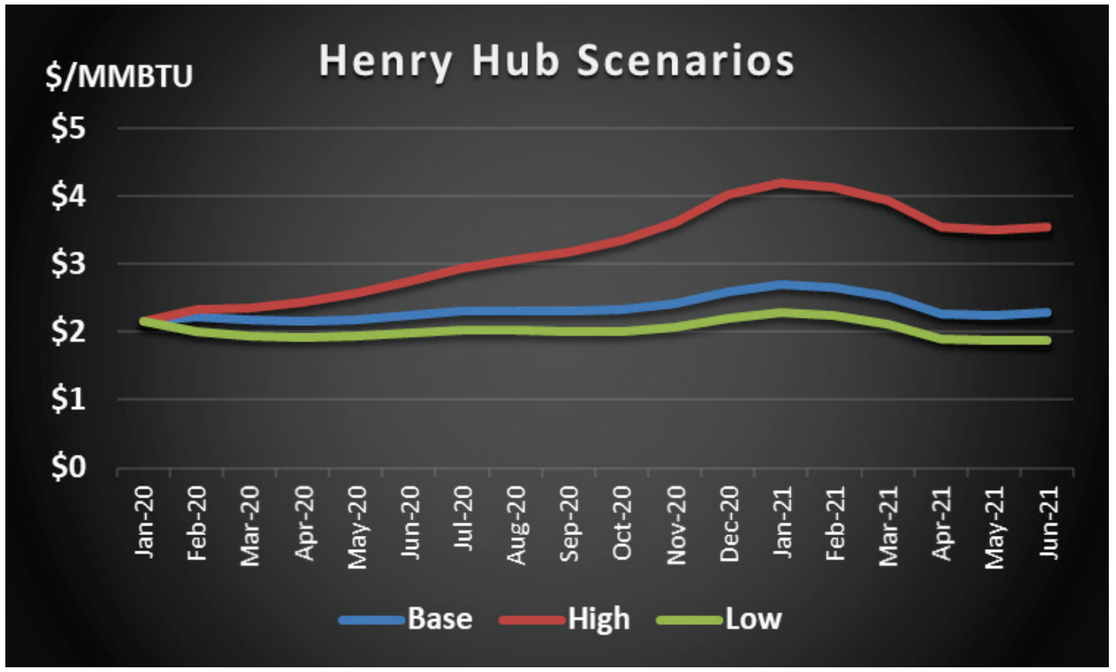
PPA Energy Price

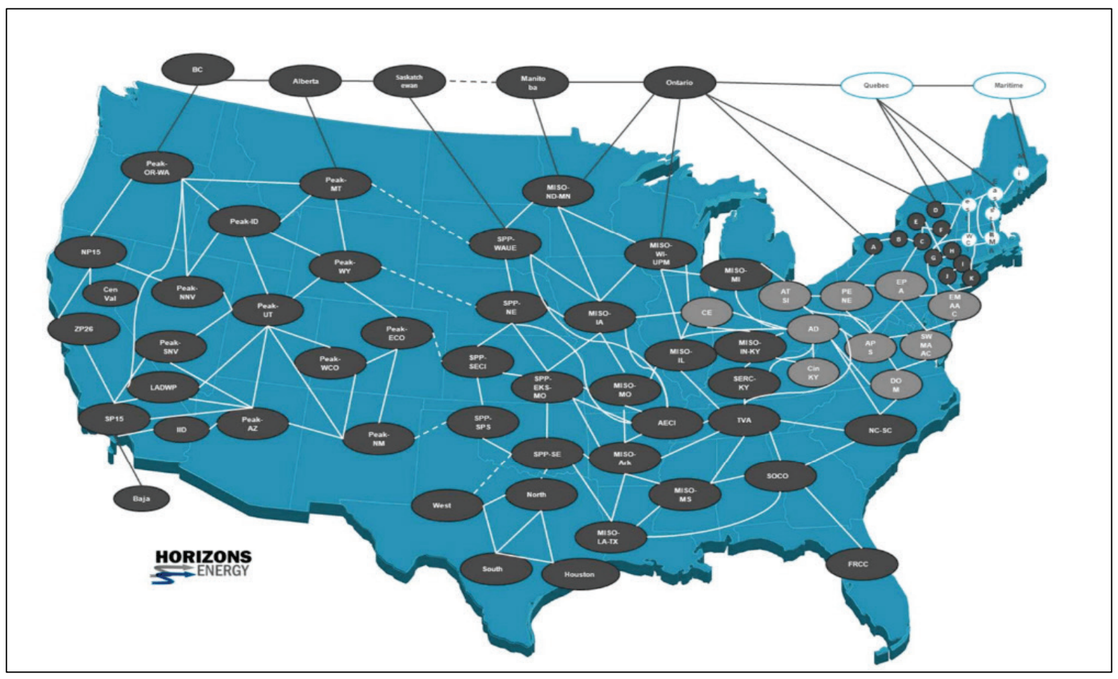
Factors Affecting Resource Energy Cost

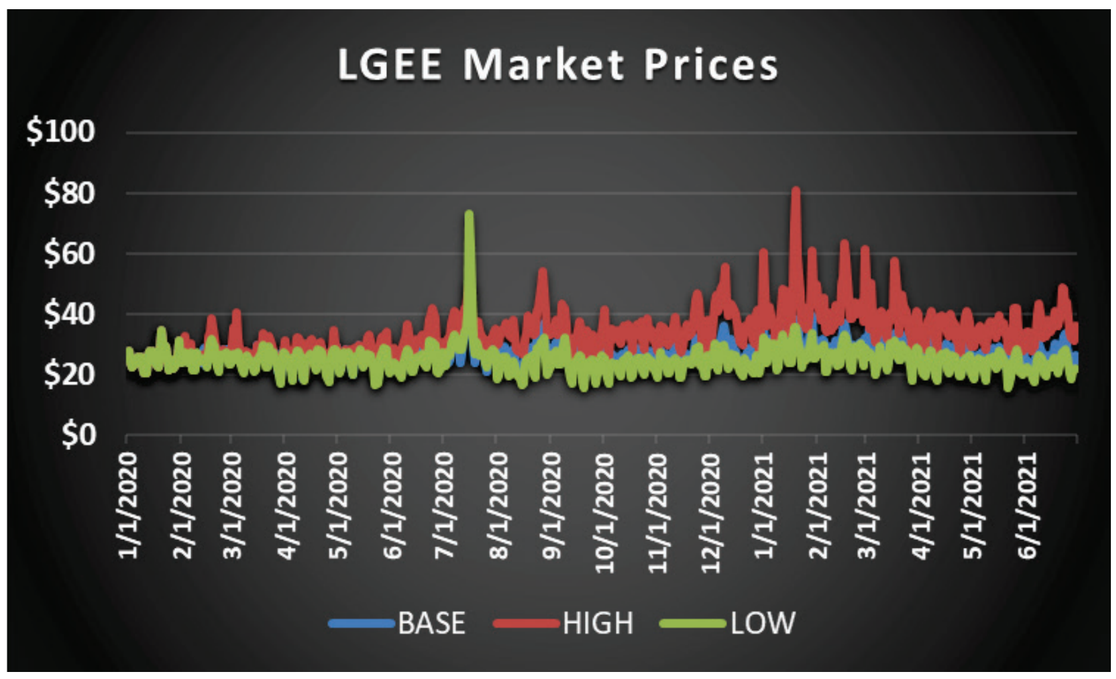
Resource	Fuel Price	Market Price	Variable O&M	Heat Rate	SOx/NOx Emission Market	CO2 Emission Market
D.B. Wilson	✓		✓	✓	✓	✓
JOPPA	✓			✓	✓	
Paducah Peakers	✓			✓		✓
SEPA		✓				
Paris Diesels	✓					

Natural Gas / Market Price Uncertainty

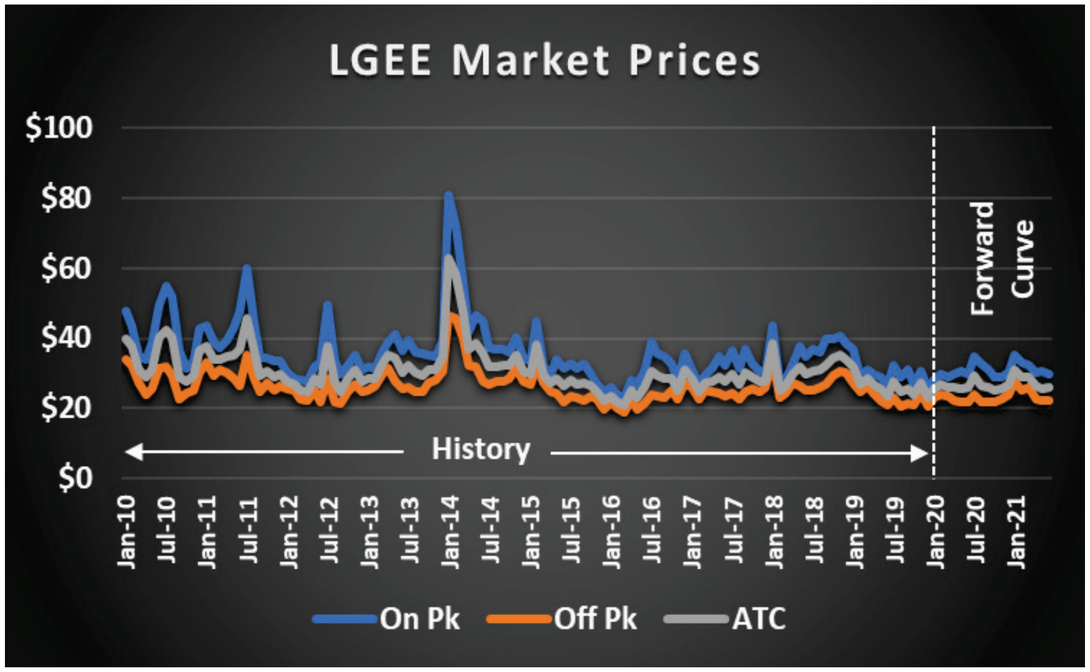


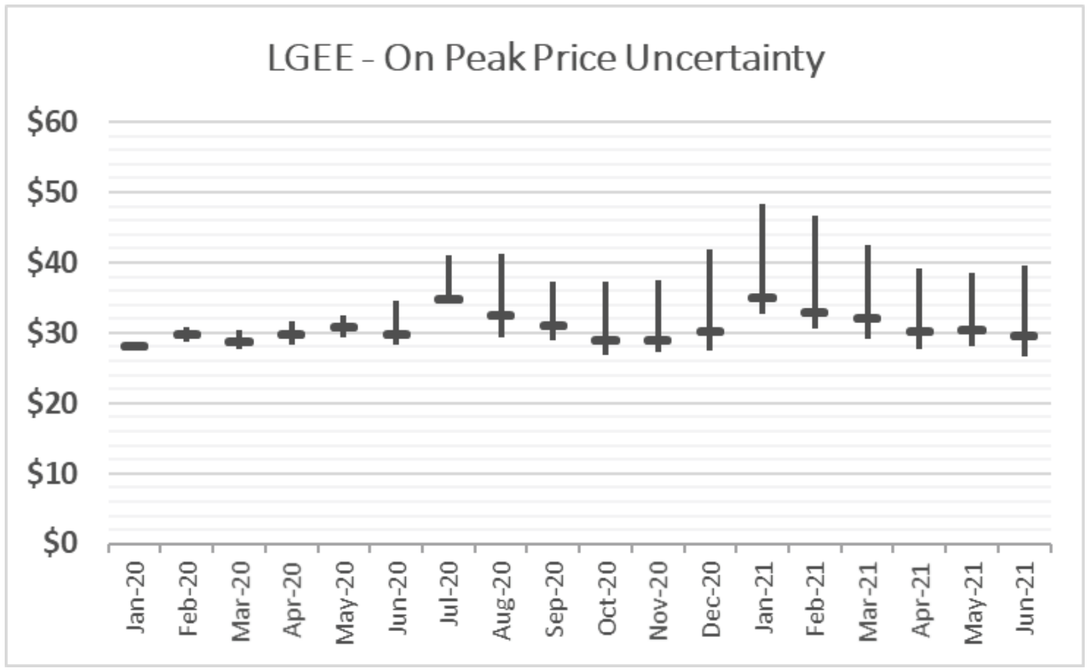


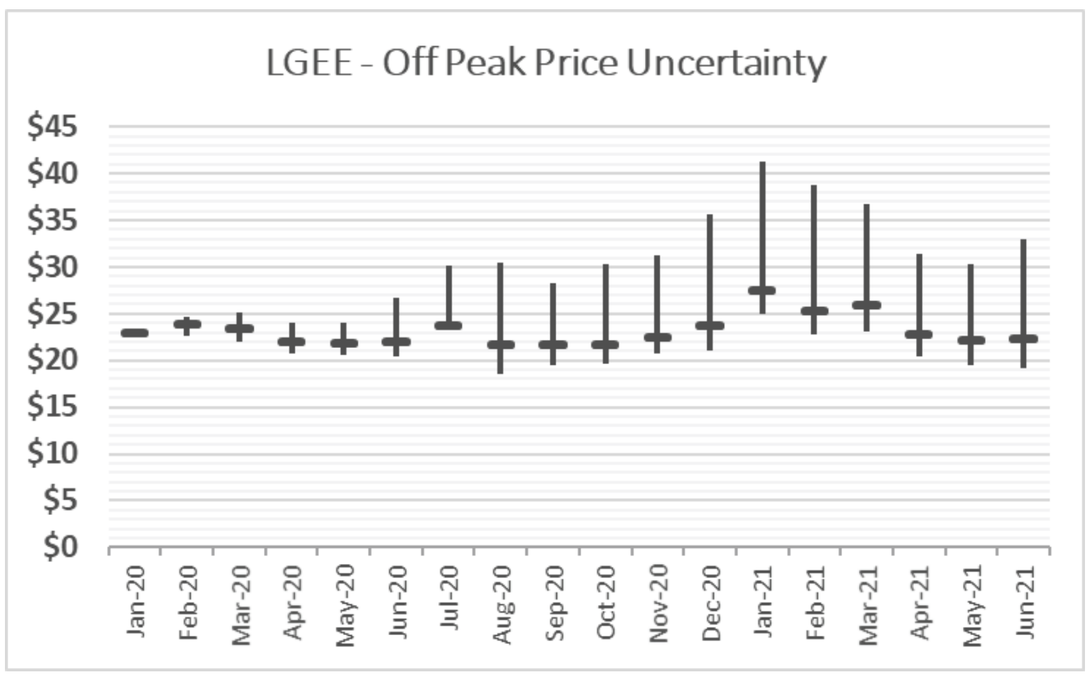


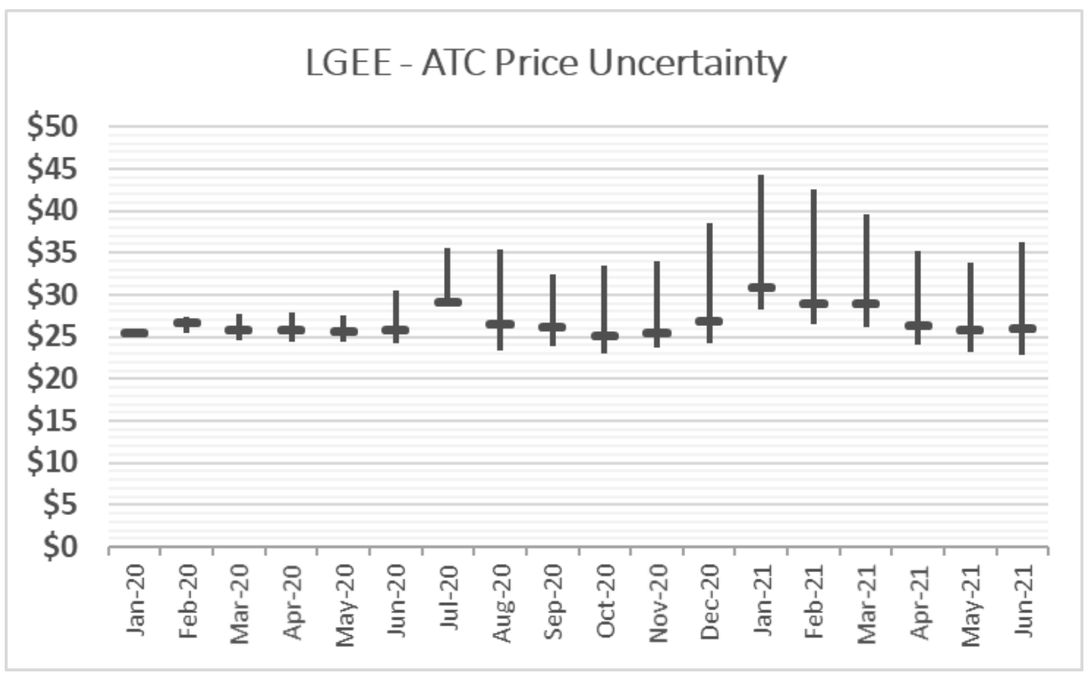


Market Price Uncertainty

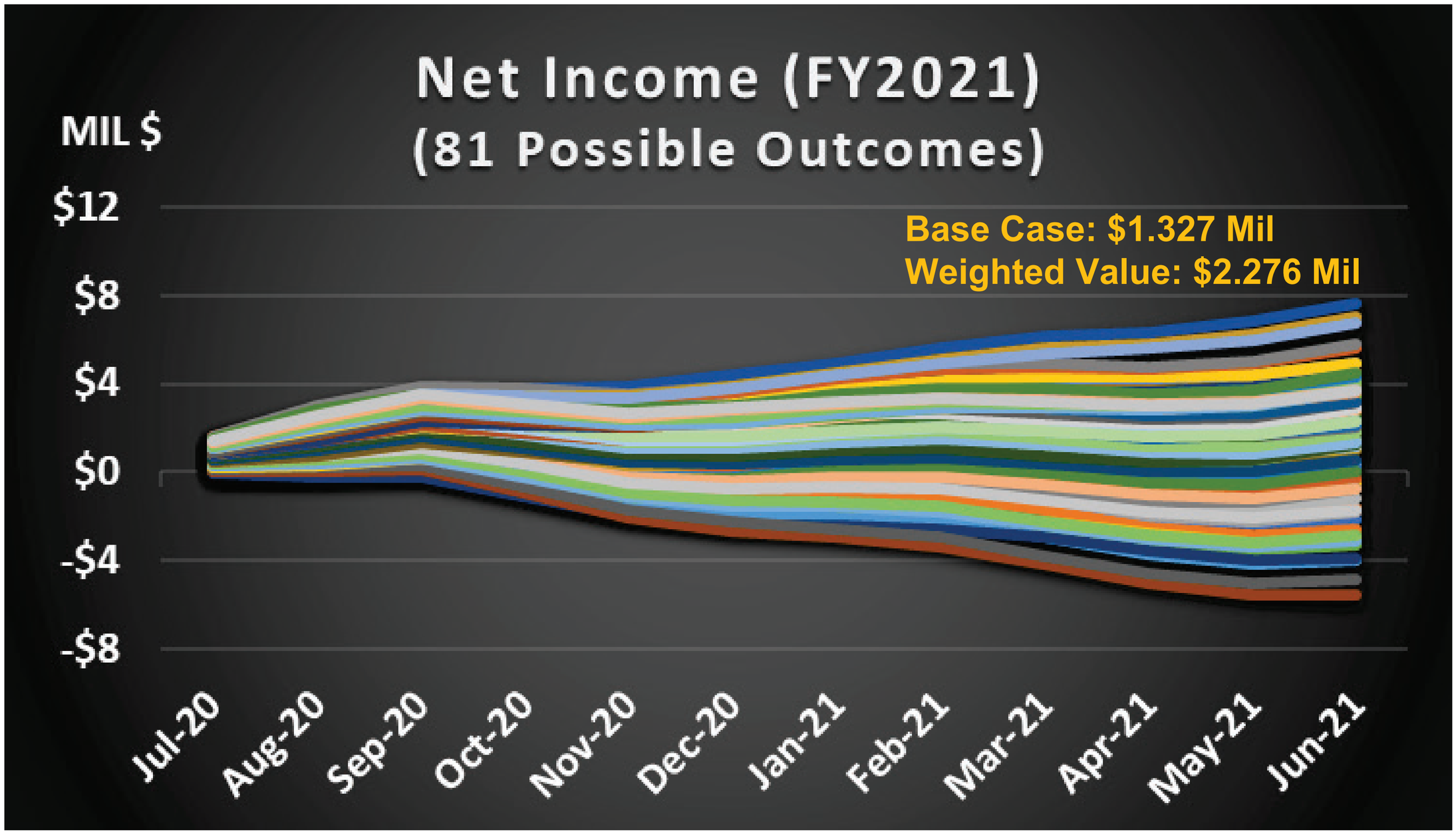








Net Income Uncertainty

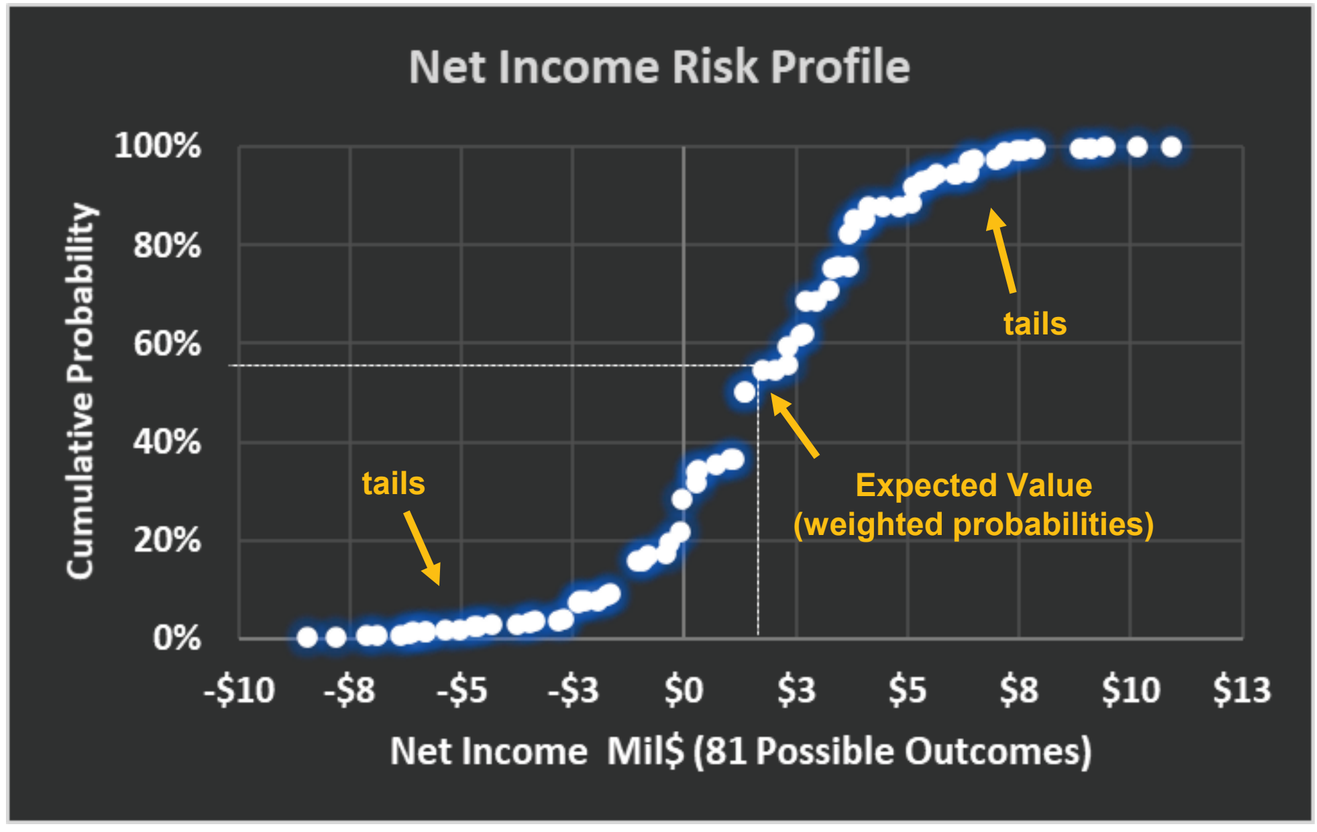


Risk Profile Explained

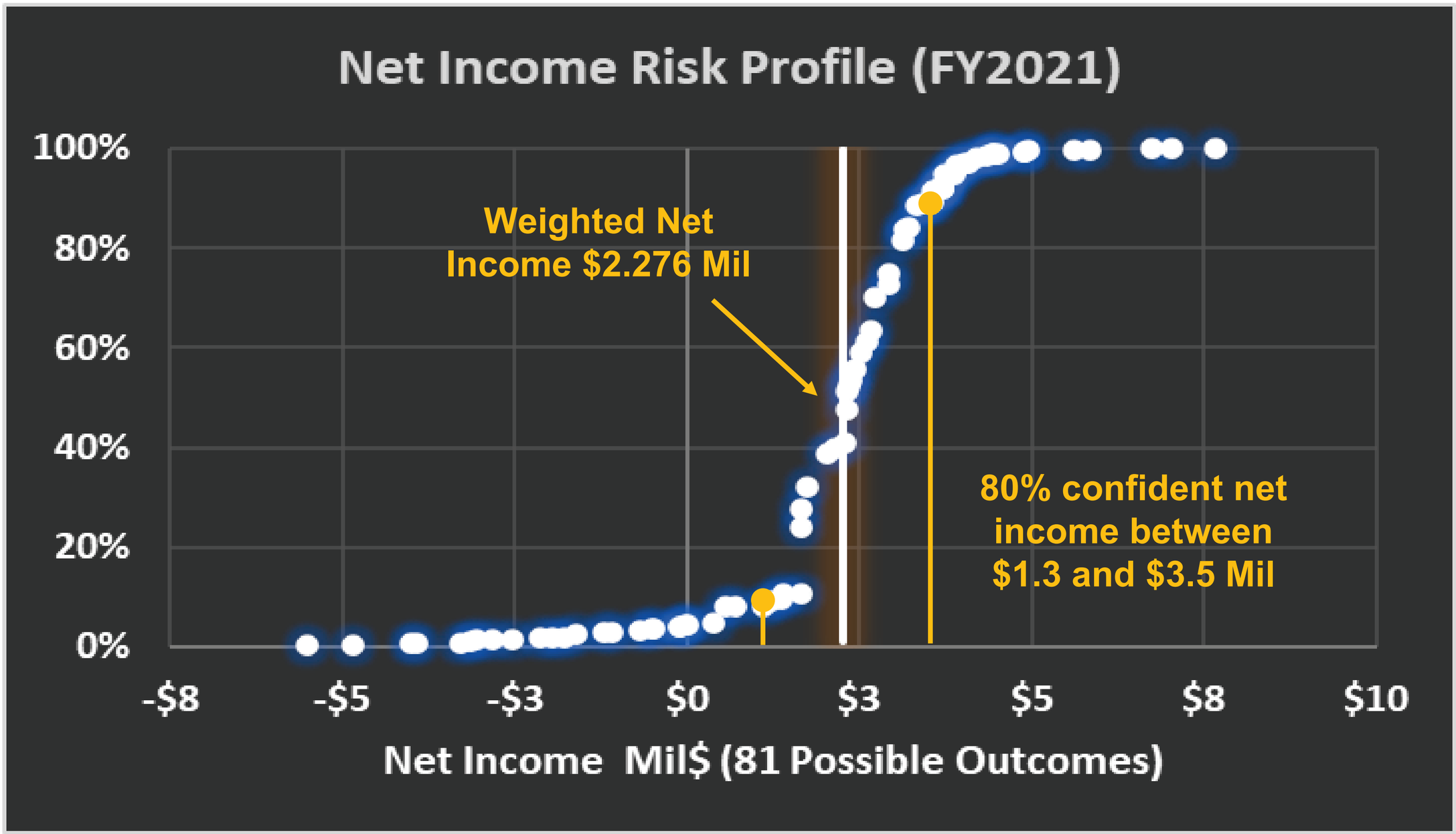
A risk profile provides valuable insight into the risk of a particular plan. The x-axis (Net Income) shows the range of possible outcomes, in this case KYMEA plots the Net Income of eighty-one (81) possible outcomes. The y-axis is the cumulative probability of occurrence of each outcome between 0% and 100%. For example, if the far-left point is -$8.465 million and the far-right point is $10.918 million, then there is 100% confidence that the Net Income will be between those two points. The more narrow the range, the less risk.

To manage risk, risk managers look for ways to minimize the "fat tails" of a risk profile often trading upside opportunity for downside risk. A risk averse profile would be a vertical line, but achieving a risk free vertical line likely moves the entire profile far to the right.

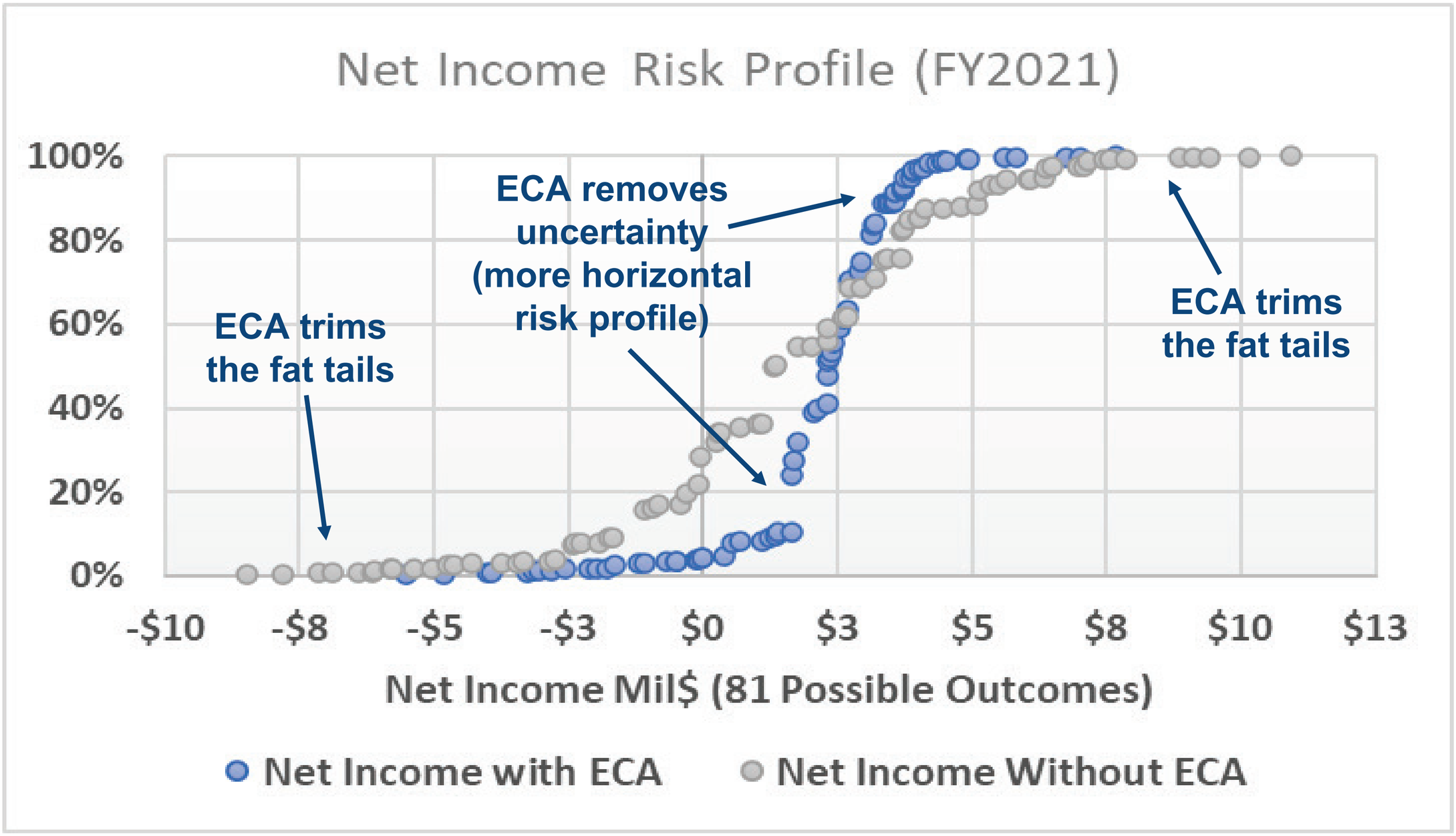
Think of it as buying far more insurance than is necessary and laying off the risk on the insurance company. KYMEA recognizes there is inherent risk in the electric utility business so a balance is drawn between risk and reward using tools such as a risk profile.



Net Income Risk Profile



Net Income Risk Profile

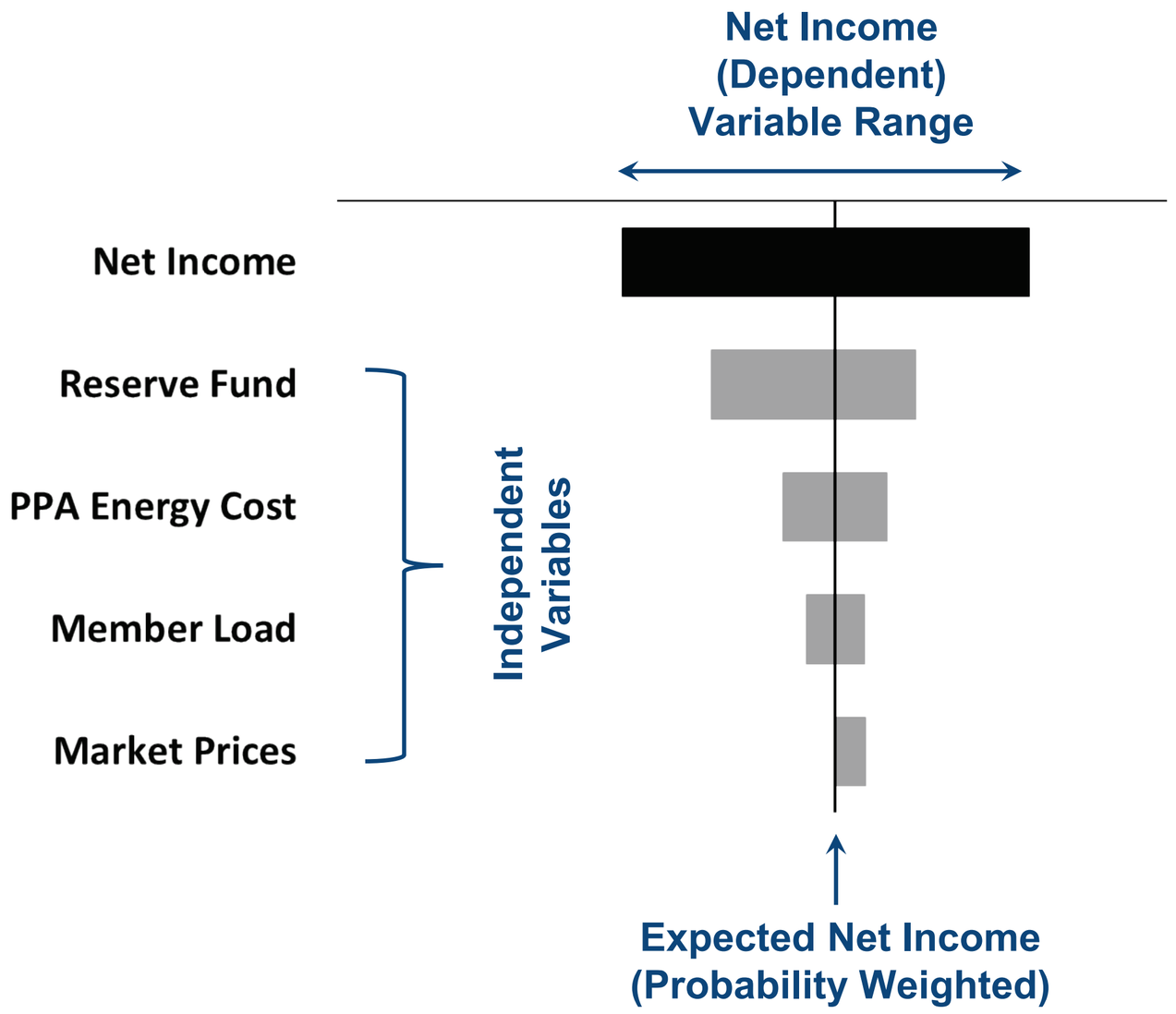


Tornado Chart Explained

To understand the risk of the drivers, KYMEA creates tornado charts to determine the sensitivity of the various fundamental drivers on Net Income. As shown in the figure below, Net Income (black bar) is the dependent variable and the remaining four (4) drivers are independent variables (gray bars).

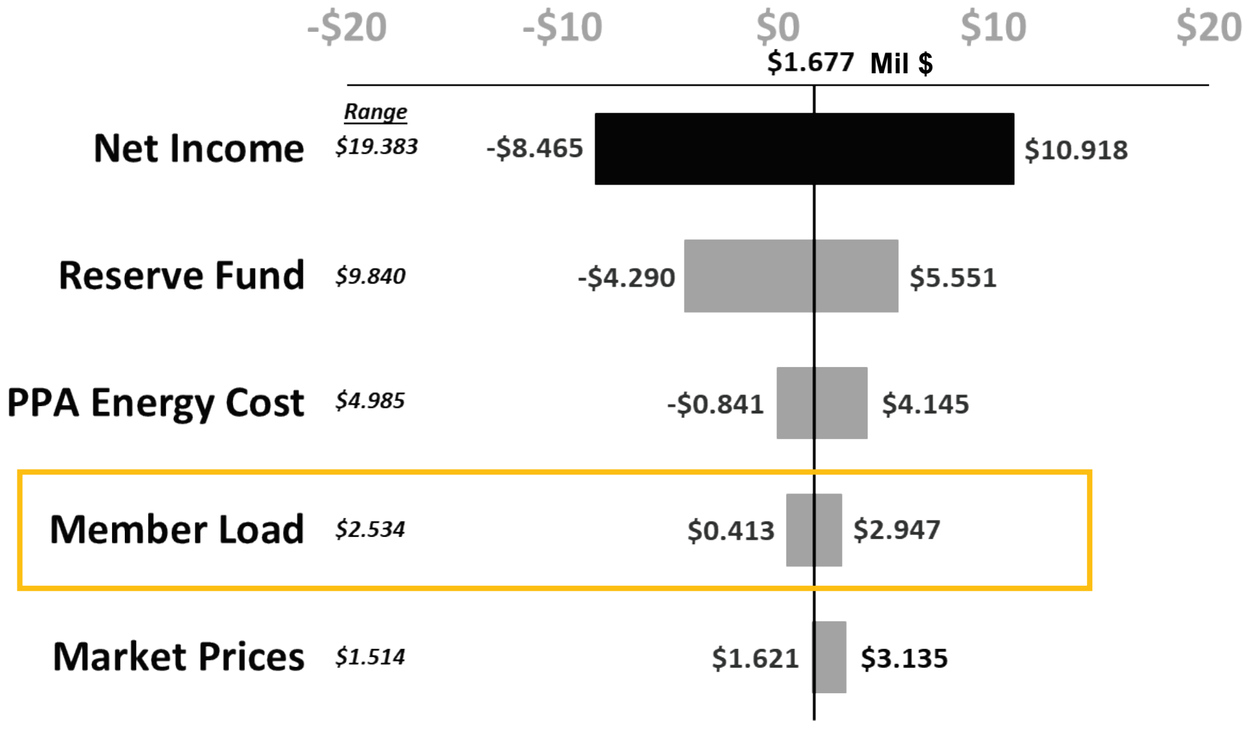
The length of the black bar is the uncertainty range of Net Income for a selected time frame. The lengths of the gray bars illustrate each independent variable's impact on Net Income; the longer the bar, the greater the impact. The expected value is signified by the vertical line.

When a gray bar is off-set to the left that means that independent variable puts downward pressure on Net Income (bad outcome). Conversely, if the gray bar is off-set to the right, then the independent variable puts upward pressure on net income (good outcome).

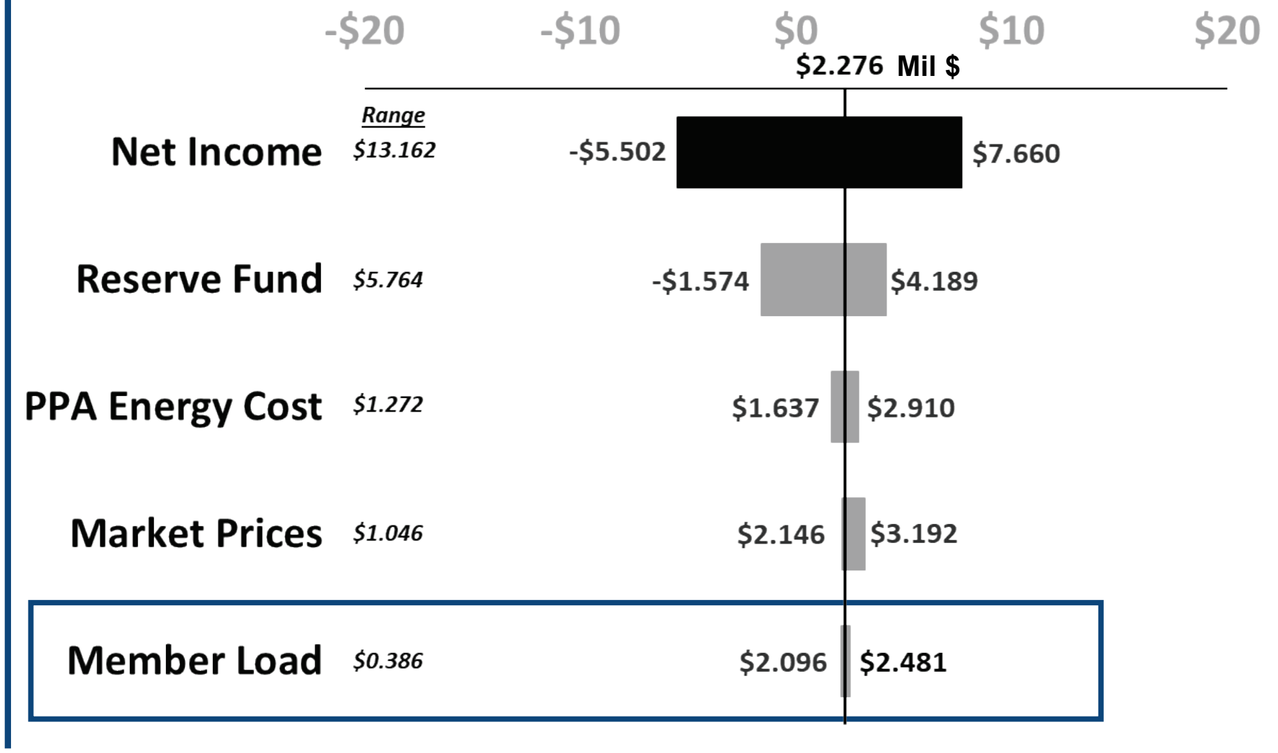


ECA Risk Mitigation Illustrated by Tornado Charts

Without ECA Collection/Refund



With ECA Collection/Refund



The Energy Cost Adjustment provides risk mitigation. For example, the graph on the left shows Net Income uncertainty without the ECA, while the graph on the right shows Net Income with the ECA. Focusing on Member Load, note how the range of uncertainty shrinks when the ECA is either collected or refunded.

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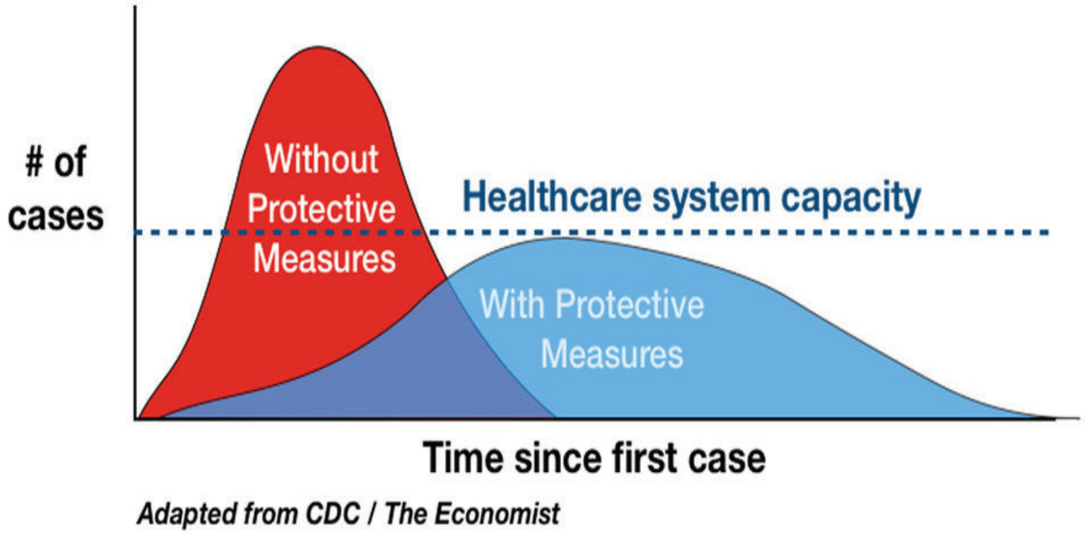
COVID-19: Health/Economic Overview

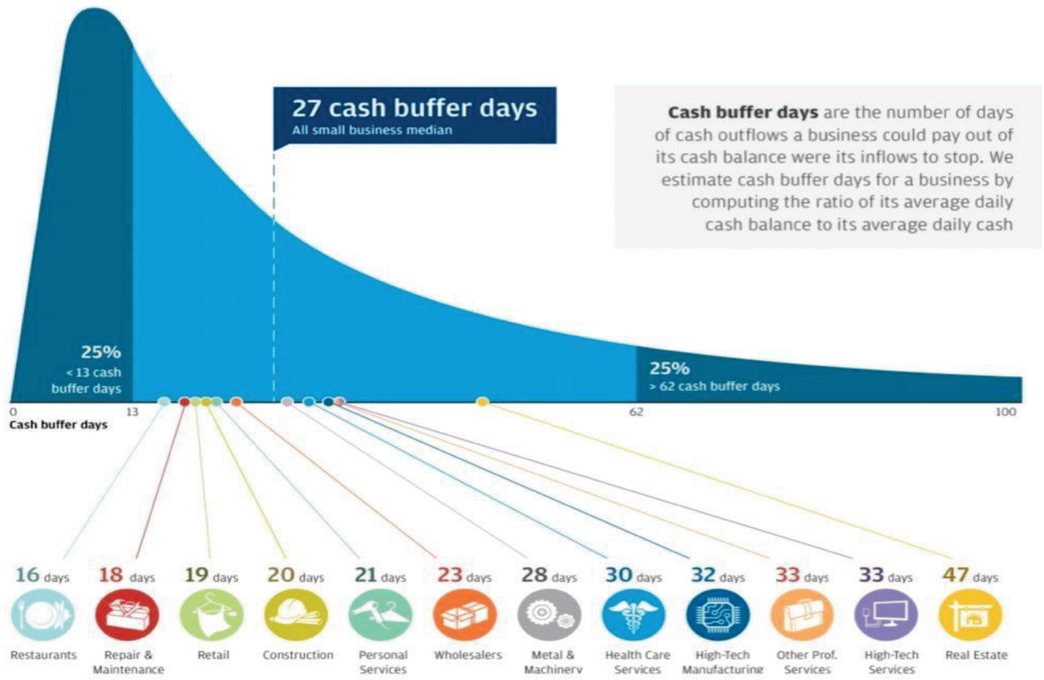
1. The World, the U.S., and Kentucky, are at a minimum, practicing social distancing with some parts of the world in complete lockdown due to the COVID-19 pandemic.
2. The impact on the economy is devastating as many shelter-in-place with business (large and small) temporarily or even permanently closed.
3. The goal of the temporary closures is to minimize human contact in an attempt to flatten the # of cases curve. The goal is to not overwhelm the healthcare system.
4. Small businesses are burning through their cash buffer (days cash on hand).



Adapted from CDC / The Economist

Half of all small businesses hold a cash buffer of less than one month.

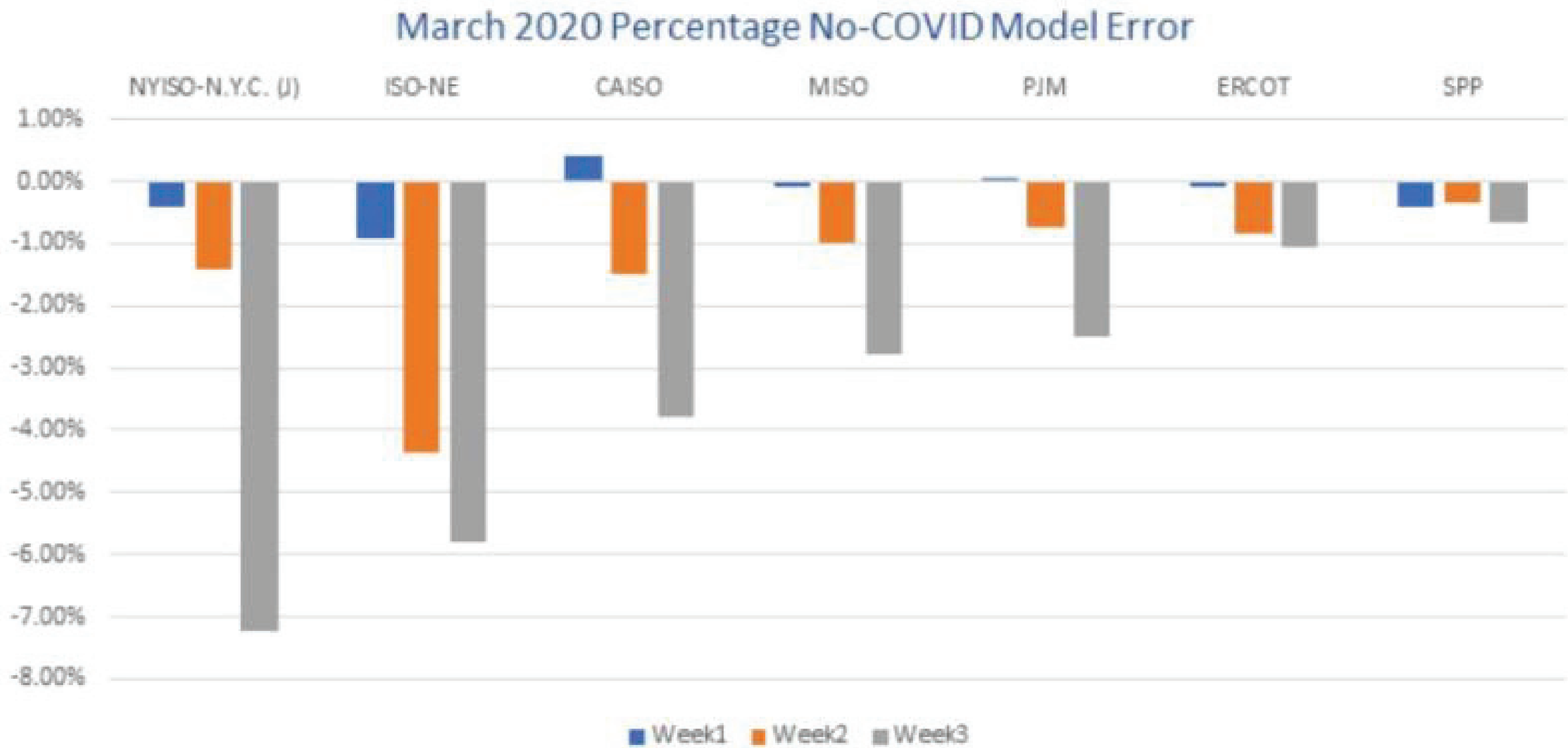
- Moreover, 25 percent of small businesses hold fewer than 13 cash buffer days in reserve.
- In contrast, 25 percent of small businesses hold over 62 cash buffer days in reserve.



COVID-19 Load Impact (early signal)

Short-Term Load Forecast Model Errors

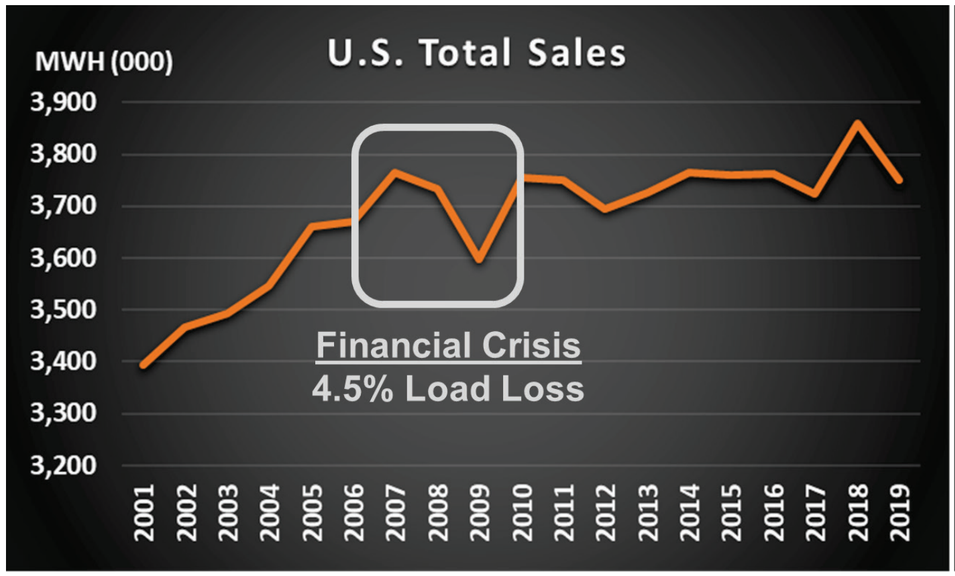
Short-term load forecast modeling use past weather and corresponding historical load information to predict next day hourly loads. The chart below illustrates the COVID-19 forecast error through March 21st. This is a leading indicator on the load impact. Not surprisingly, New York City, which is now the epicenter of the outbreak has the largest forecast error while the less dense SPP area has the lowest forecast error.

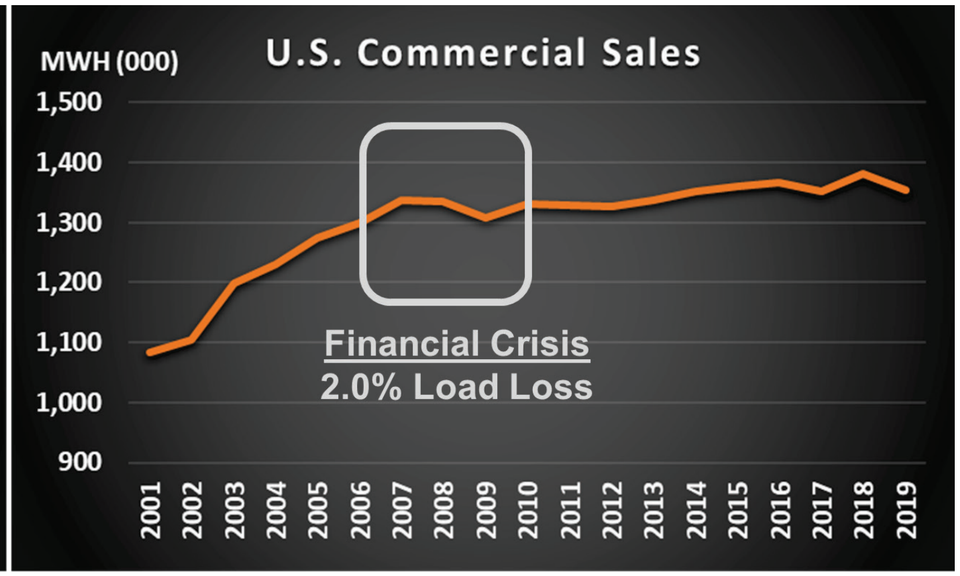


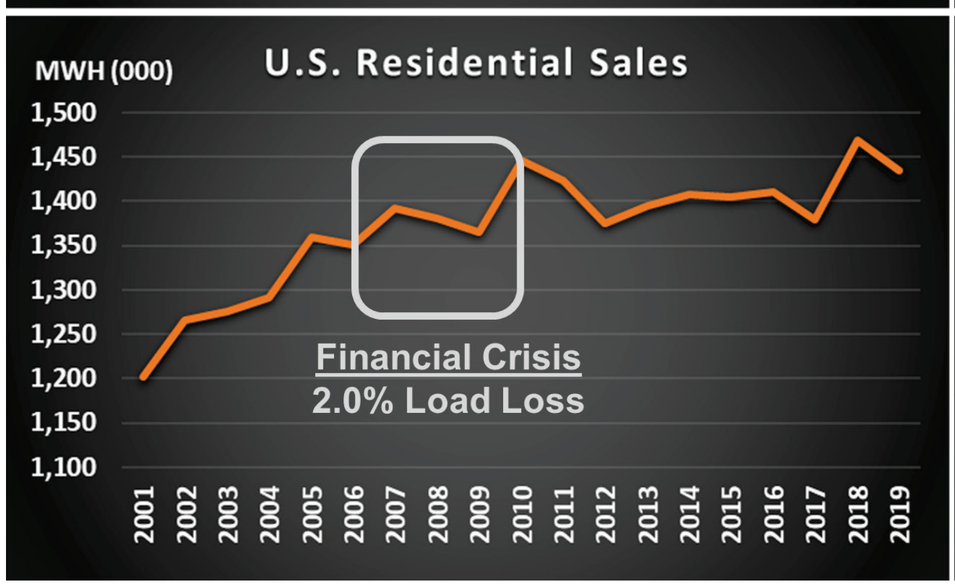
U.S. Financial Crisis Load Impact (2008-2009)

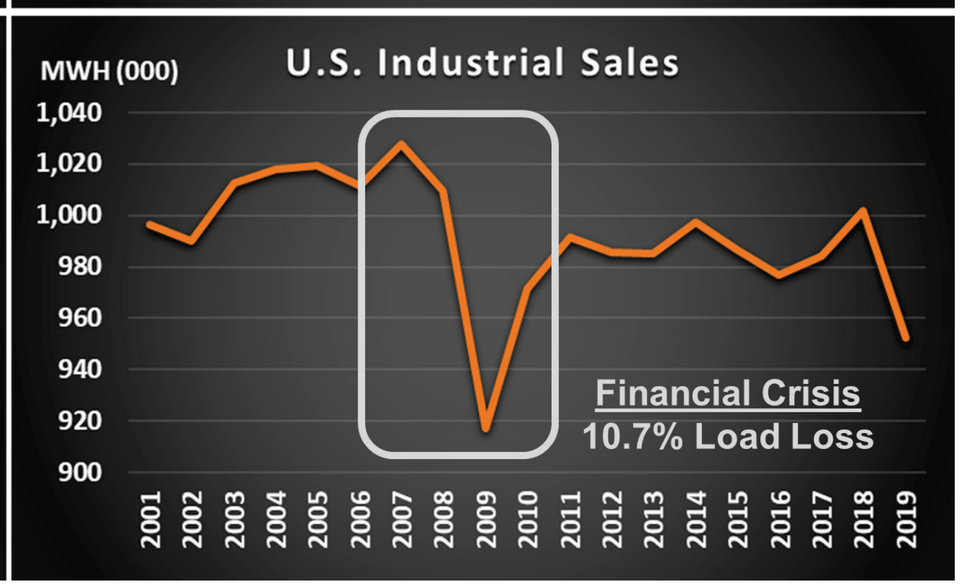
U.S. Load Impact

In 2008-2009, due to the Financial Crisis, the U.S. electricity usage abruptly dropped 4.5% and took several years to partially recover. The Financial Crisis may provide insight into the long-term loss of load KYMEA could experience due to the COVID-19 pandemic.





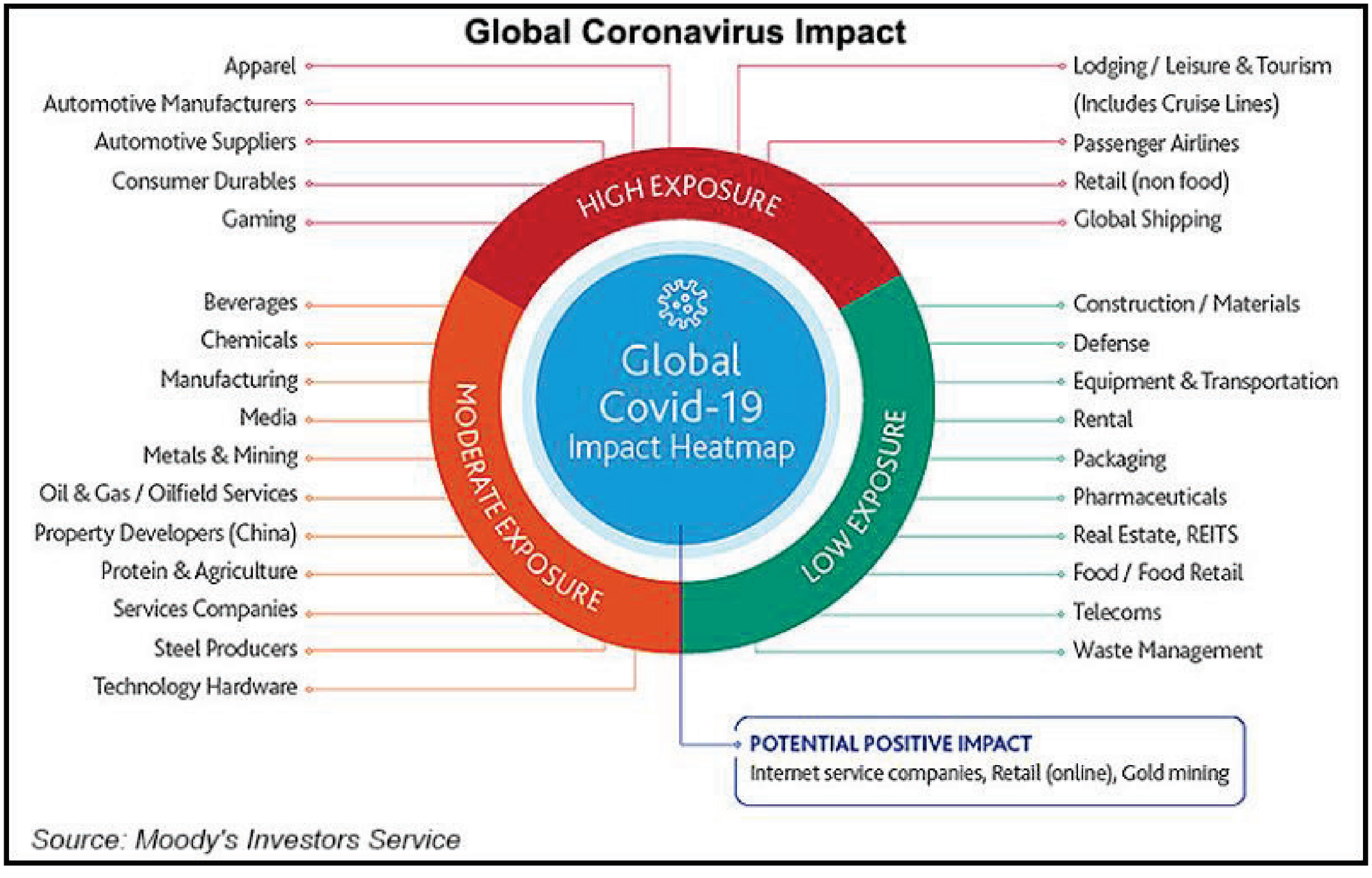




Global Coronavirus Impact by Sector

Coronavirus Business Sector Impact

The following chart illustrates the expected exposure by business sector to the Coronavirus.

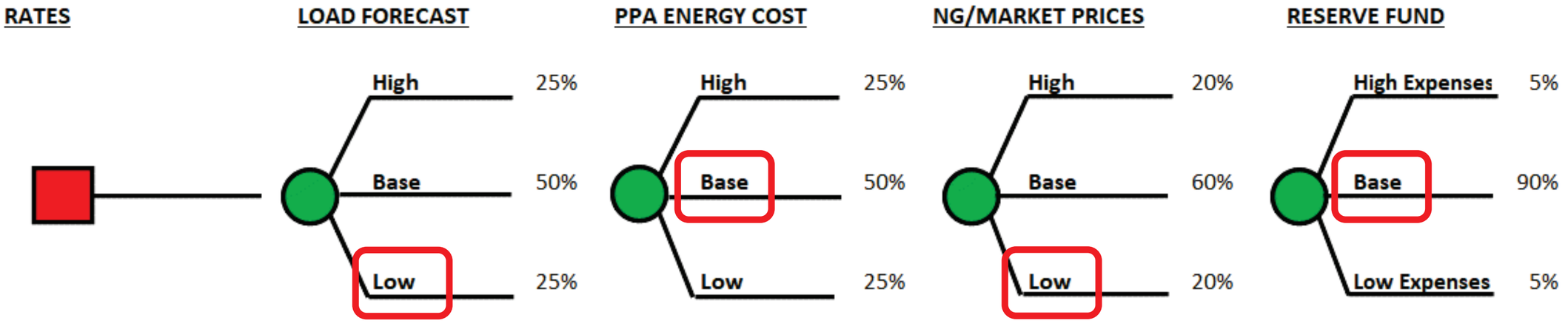


COVID-19: Possible KYMEA FY2021 Impact

- ❑ KYMEA presented its rate study to the KYMEA Board of Directors on February 27, 2020 with a recommendation of a 4.19% rate decrease (slide 4 of this presentation).
- ❑ Since the February Board meeting, the economy has been significantly impacted by the COVID-19 pandemic.

The following analysis addresses the possible impact on KYMEA and its members.

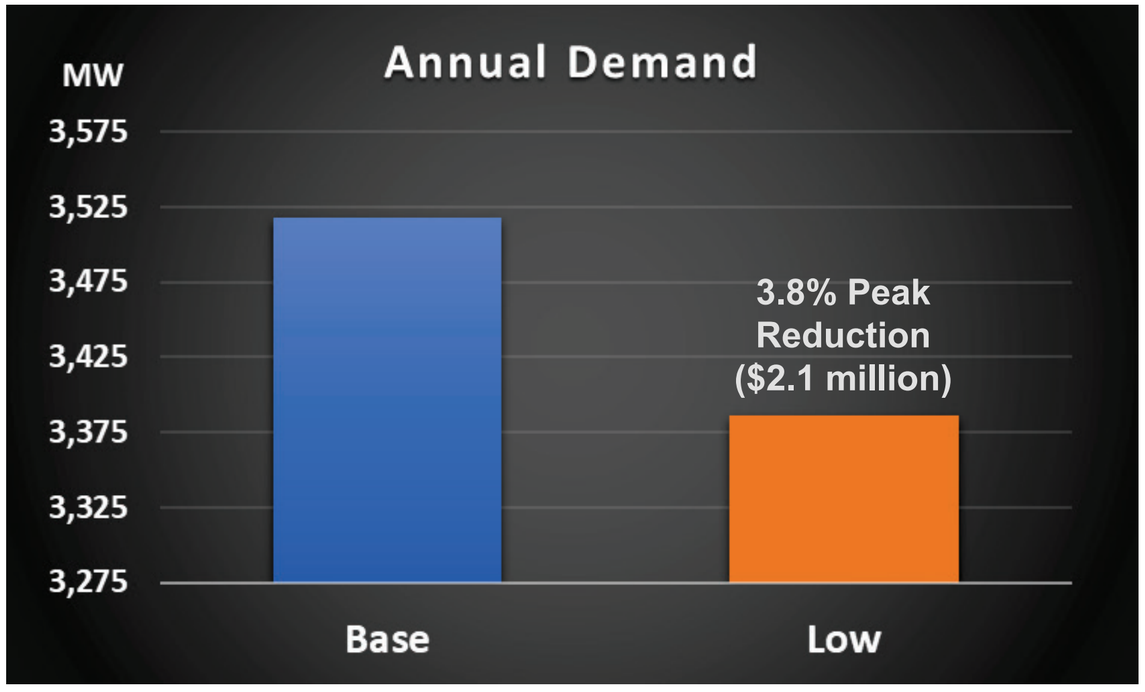
1. **The FY2021 rates were established following the Base-Base-Base-Base path (highest probability of occurrence) as shown in the decision tree below.**
2. **Due to the COVID-19 pandemic, a <u>more likely path</u> is the Low-Base-Low-Base (Low Load Forecast, Base PPA Energy Cost, Low NG/Market Prices, and Base Reserve Fund).**

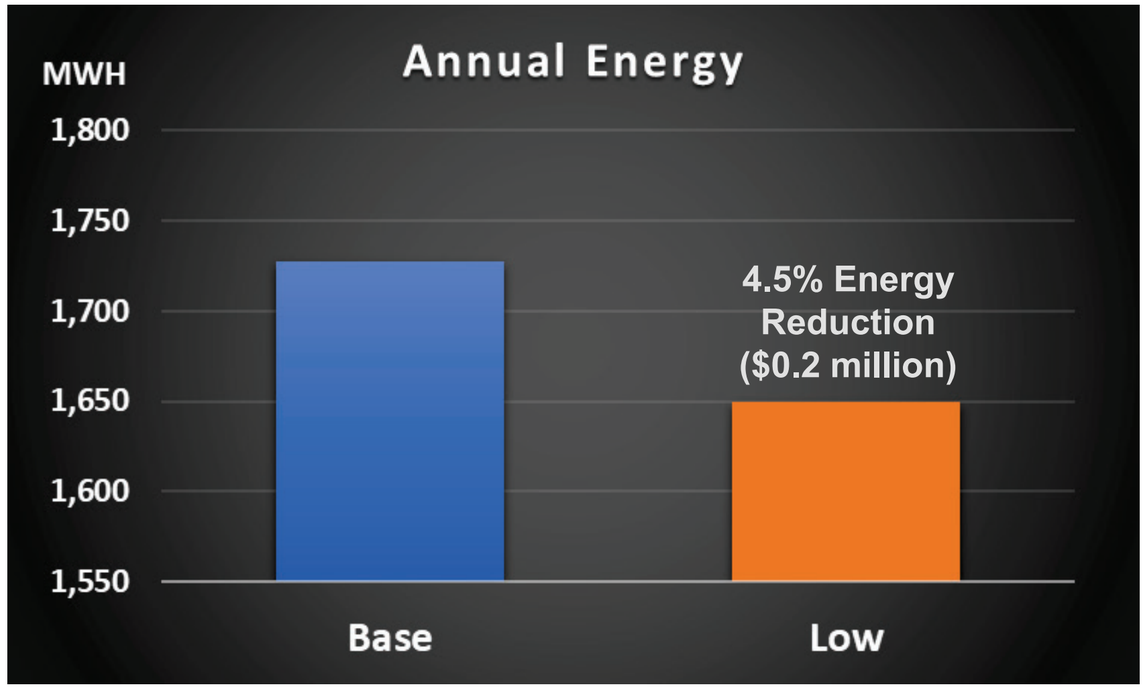


KYMEA Demand and Energy Impact

The KYMEA Demand and Energy comparing the Base Load and the Low Load Scenarios (March 2020 – June 2021) is shown below.

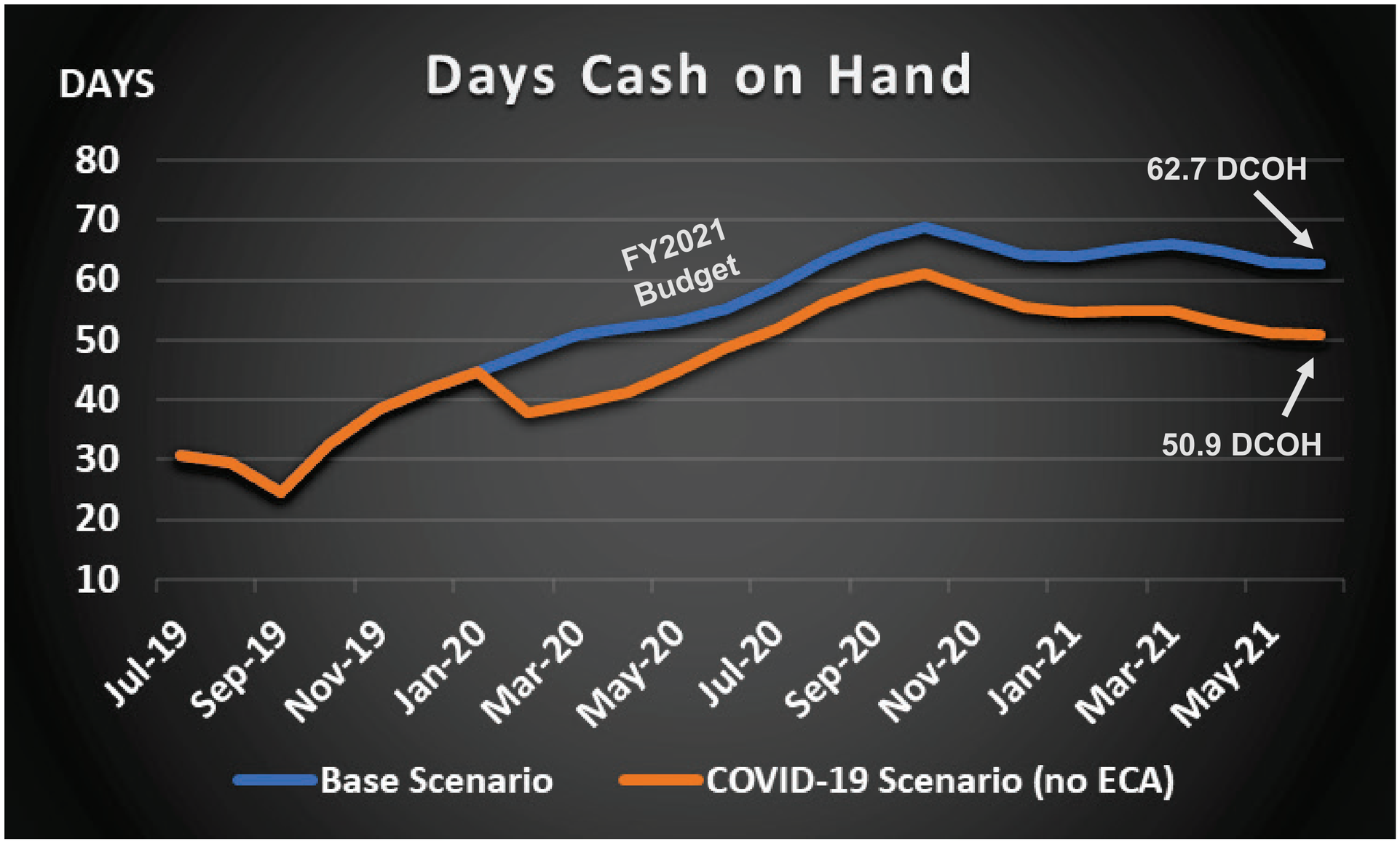
1. **Annual Demand: The Low Load Scenario is a 3.8% reduction (132.6 MW) over the next 16 Months. $2.1 million impact on Net Income.**
2. **Annual Energy: The Low Load Scenario is a 4.5% reduction (77.7 GWh) over the next 16 Months. $0.2 million impact on Net Income.**





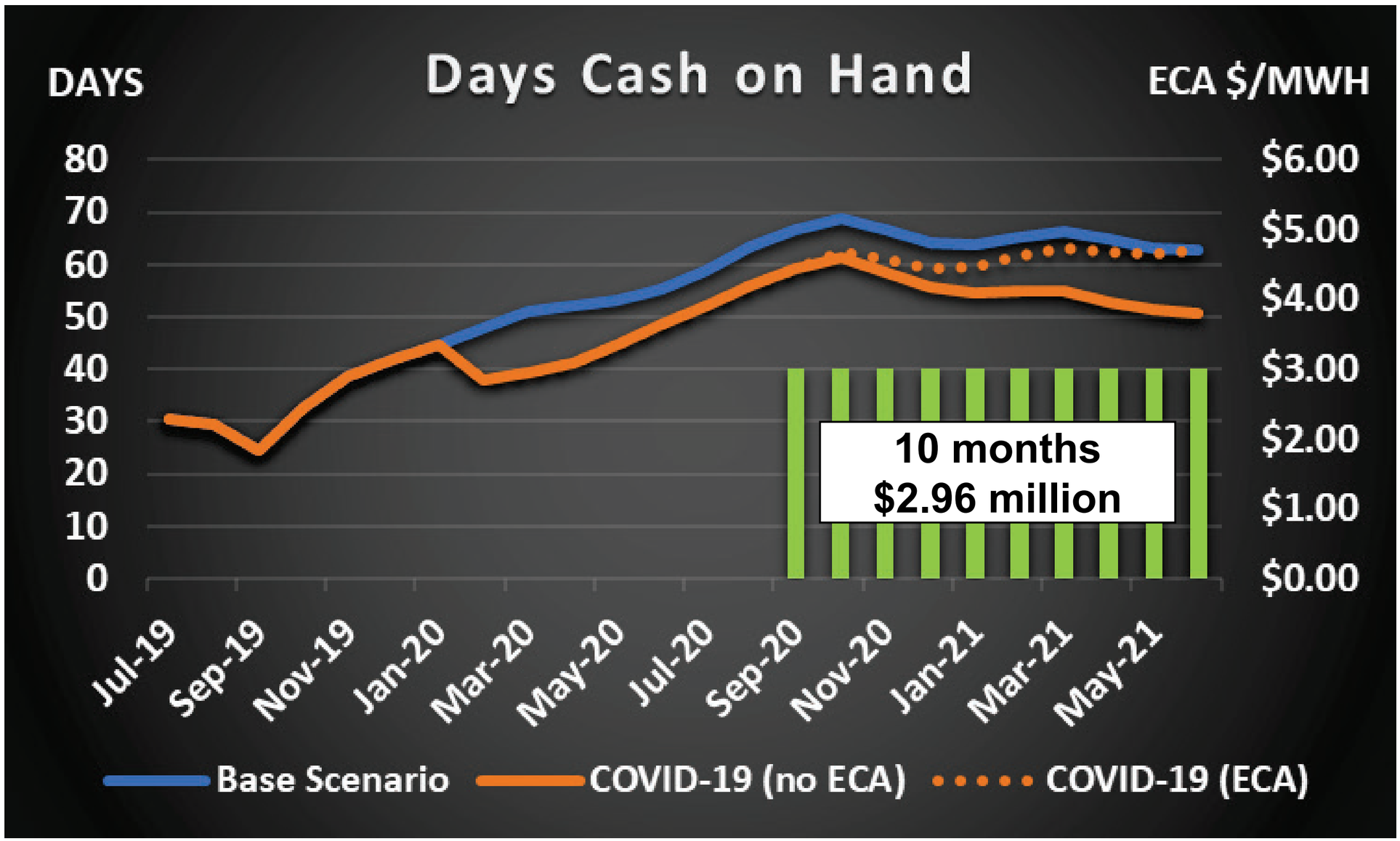
COVID-19 DCOH Impact Without ECA Collection

The FY2021 rates are set with a target Days Cash on Hand (DCOH) of 62 days by June 2021 as shown by the Blue Line. The Orange Line represents the DCOH shortfall due to the COVID-19 pandemic. This drop is the impact without ECA collection.



COVID-19 DCOH Impact With ECA Collection

As shown in the Chart below, to achieve the target DCOH of 62 days, the ECA of $3.00/MWh would begin to be collected in September 2020 and would continue through June 2021.



FY2021 COVID-19 Rate Impact With ECA Collection (62 DCOH Target)

	FY2021 (62 DCOH Driver) - Deterministic			FY2021 (62 DCOH Driver) - COVID-19 Case			Change
	$/kW-mo	kW	$	$/kW-mo	kW	$	$
Billing Demand	$14.043800	2,641,566	$37,097,625	$14.043800	2,537,741	$35,639,527	-$1,458,098
	$/kWh	kWh	$	$/kWh	kWh	$	$
Energy	$0.024702	1,303,112,487	$32,189,758	$0.024702	1,239,161,676	$30,610,031	-$1,579,726
ECA	$0.000000	-	$0	$0.002391	1,239,161,676	$2,962,954	$2,962,954
Transmission	$/kW-mo	kW	$	$/kW-mo	kW	$	$
KU Transmission 12-CP	$2.776615	2,516,985	$6,988,699	$2.776615	2,413,472	$6,701,283	-$287,416
MISO Transmission NCP	$1.534664	2,644,185	$4,057,936	$1.534664	2,537,741	$3,894,580	-$163,356
PJM Transmission 1-CP	$2.738177	38,400	$105,146	$2.738177	38,400	$105,146	$0
KU Direct Assigned Facilities			$			$	$
Fixed Facility Charges			$213,839			$213,839	$0
SEPA Member Resource Credit	$/kW-mo	kW	$	$/kW-mo	kW	$	$
Capacity Payment	($3.850000)	440,896	-$1,697,450	($3.850000)	440,896	-$1,697,450	$0
AR Project Member Invoice			$78,955,552			**$78,429,910**	-$525,642
			6.059 ¢			**6.329 ¢**	0.270 ¢
Decrease from FY2020 Actual/Budget			-4.20%			**0.08%**	4.28%
AR Project Member Power Supply (Without NITS)			$71,861,708			$71,623,481	-$238,226
			5.515 ¢			5.780 ¢	0.265 ¢
Decrease from FY2020 Actual/Budget (Without NITS)						4.81%	4.81%
Net Income			$1,327,475			**$3,231,645**	$1,904,170
Days Cash On Hand (June 2021)			62.652			**62.840**	0.188
Coverage of Full Fixed Obligations (June 2021)			1.027			**1.066**	0.039
Leverage (Net Adjusted Debt / Adjusted FADS (x))			7.531			7.237	-0.294

KYMEA COVID-19 Rate Relief Plan

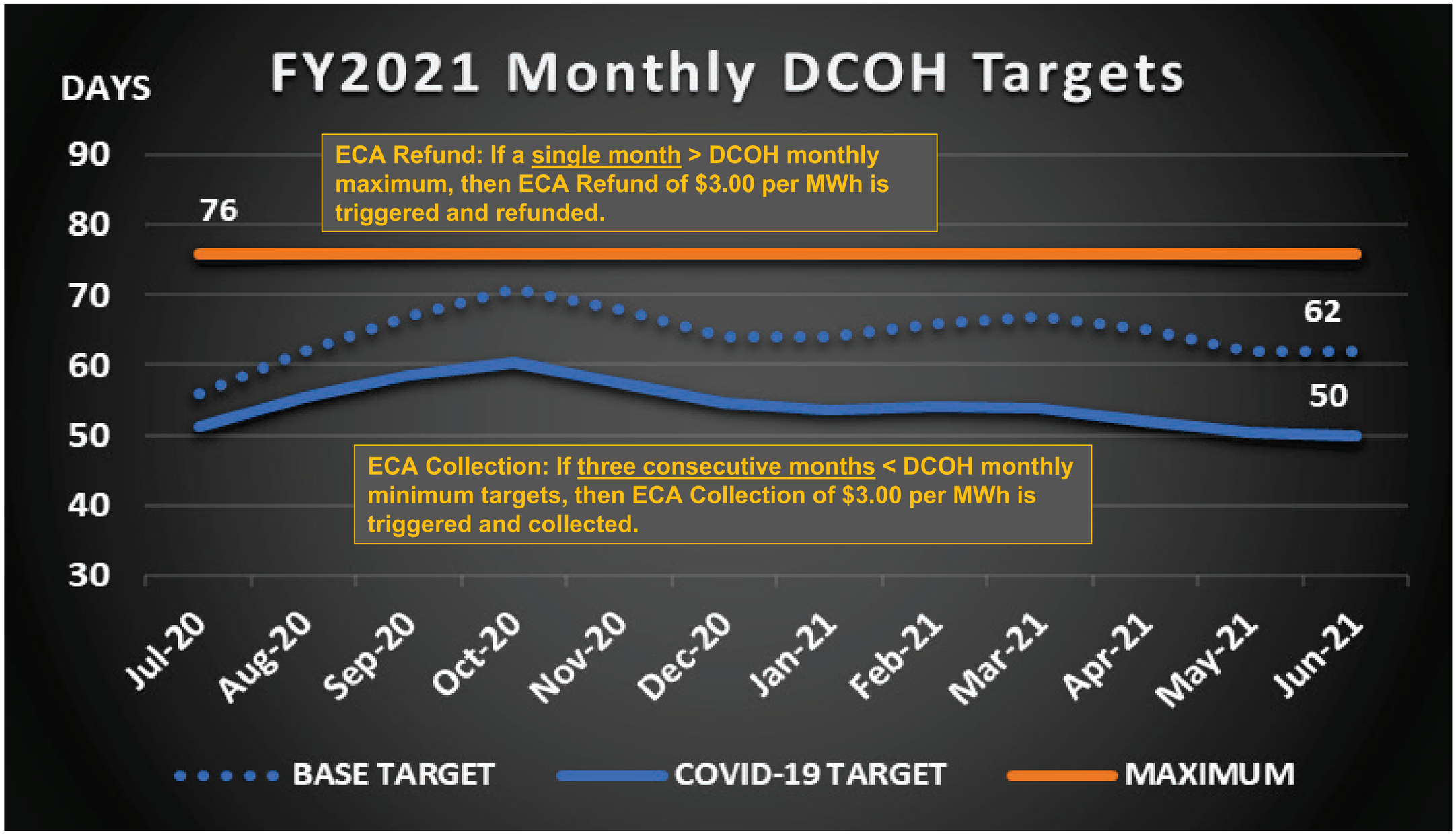
- **The KYMEA COVID-19 Rate Relief Plan ("Plan") is aimed at alleviating the economic impact to the KYMEA Members. KYMEA and its membership stands together to provide much needed relief to our customers.**

****** In short, the Plan lowers the FY2021 DCOH minimum target from 62 days to 50 days.***

Key Elements of the FY2021 KYMEA COVID-19 Rate Relief Plan

- **Billing Demand Rate: $14.044 per kW-MO**
- **Energy Rate: $0.024702 per kWh**
- **Reserve Fund Rate: $1.535 per kW-MO**
- **Net Income: $269,691**
- **Days Cash on Hand: 50.852 Days**
- **Coverage of Full Fixed Obligations: 1.006**
- **Leverage: 7.728**

COVID-19 Rate Relief Plan Targets

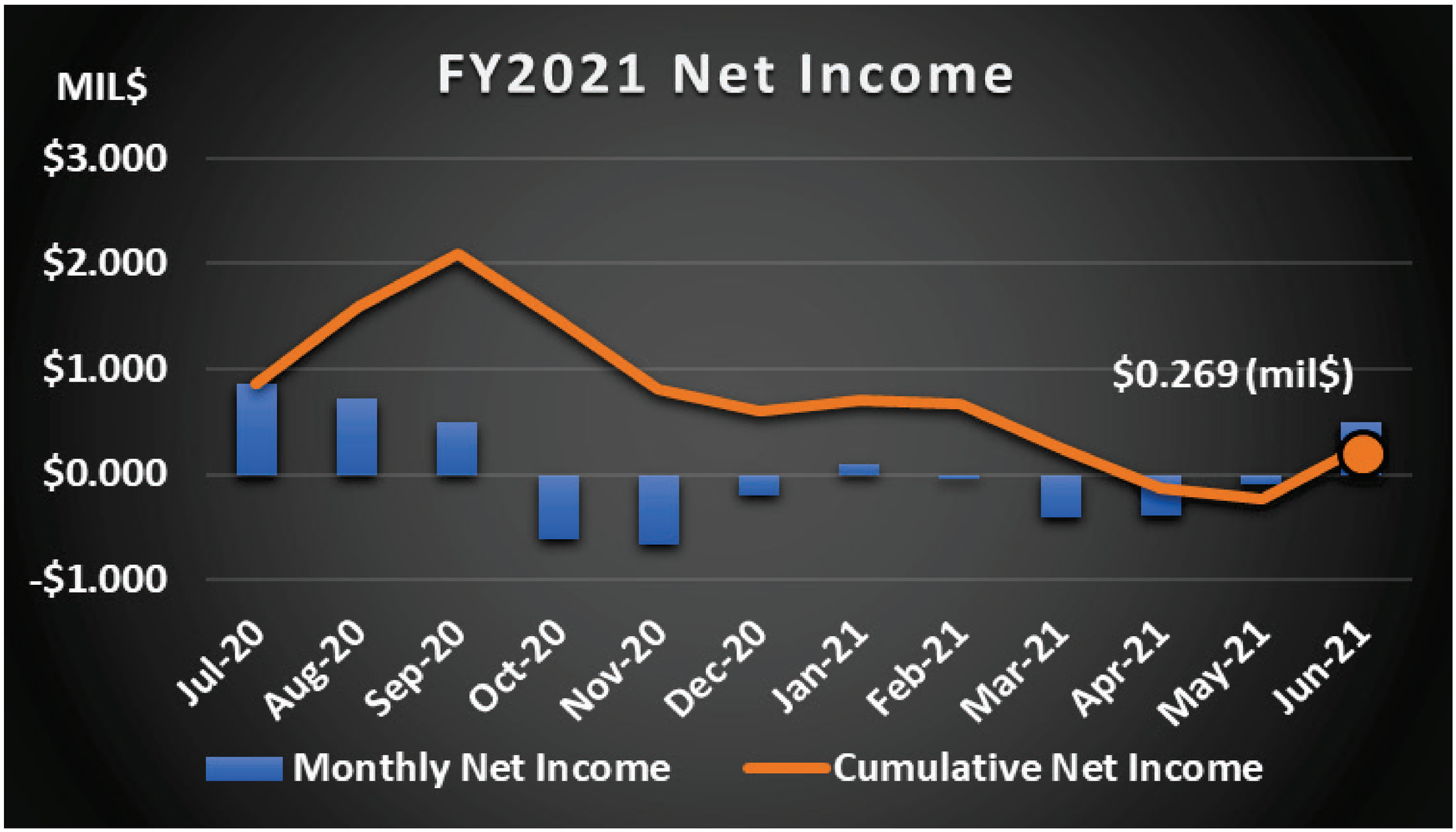


FY2021 COVID-19 Rate Relief Plan With ECA Collection (50 DCOH Target)

KYMEA.ORG

	FY2021 (62 DCOH Driver) - Deterministic			FY2021 (50 DCOH Driver) - COVID-19 Case			Change
	$/kW-mo	kW	$	$/kW-mo	kW	$	$
Billing Demand	$14.043800	2,641,566	$37,097,625	$14.043800	2,537,741	$35,639,527	-$1,458,098
	$/kWh	kWh	$	$/kWh	kWh	$	$
Energy	$0.024702	1,303,112,487	$32,189,758	$0.024702	1,239,161,676	$30,610,031	-$1,579,726
ECA	$0.000000	-	$0	$0.000000	-	$0	$0
Transmission	$/kW-mo	kW	$	$/kW-mo	kW	$	$
KU Transmission 12-CP	$2.776615	2,516,985	$6,988,699	$2.776615	2,413,472	$6,701,283	-$287,416
MISO Transmission NCP	$1.534664	2,644,185	$4,057,936	$1.534664	2,537,741	$3,894,580	-$163,356
PJM Transmission 1-CP	$2.738177	38,400	$105,146	$2.738177	38,400	$105,146	$0
KU Direct Assigned Facilities			$			$	$
Fixed Facility Charges			$213,839			$213,839	$0
SEPA Member Resource Credit	$/kW-mo	kW	$	$/kW-mo	kW	$	$
Capacity Payment	($3.850000)	440,896	-$1,697,450	($3.850000)	440,896	-$1,697,450	$0
AR Project Member Invoice			$78,955,552			**$75,466,957**	-$3,488,596
			6.059 ¢			**6.090 ¢**	0.031 ¢
Decrease from FY2020 Actual/Budget			-4.20%			**-3.71%**	0.49%
AR Project Member Power Supply (Without NITS)			$71,861,708			$68,660,528	-$3,201,180
			5.515 ¢			5.541 ¢	0.026 ¢
Decrease from FY2020 Actual/Budget (Without NITS)						0.48%	0.48%
Net Income			$1,327,475			**$268,691**	-$1,058,784
Days Cash On Hand (June 2021)			62.652			**50.852**	-11.800
Coverage of Full Fixed Obligations (June 2021)			1.027			**1.006**	-0.022
Leverage (Net Adjusted Debt / Adjusted FADS (x))			7.531			7.728	0.198

KYMEA COVID-19 Rate Relief Plan Net Income (FY2021)



Agenda

FY2021 Financial Pro Forma and Rates

1. Executive Summary
   - FY2021 All Requirements Rates and Financial Metrics
   - Power Supply Savings since FY2018
   - Projected Net Income
2. AR Rates and ECA
   - AR Rate Making Methodology
   - ECA Collection/Refund Methodology
3. Risk Assessment
   - Uncertainties
   - Net Income
   - Risk Profile
   - Tornado Chart
4. KYMEA COVID-19 Rate Relief Plan
5. **Discussion/Actions**

Discussion/Actions

Discussion

Staff Recommends the AR Project and KYMEA Board approve the COVID-19 Rate Relief Plan (RRP) and the Late Payment Protection Plan (LPPP).

- **4.19% Rate Decrease**
- **Lower FY2021 Minimum DCOH Target to 50 Days**
- **Late Payment Interest Forgiveness**

Actions – Rate Schedule Exhibit A

1. **AR Project Approval**
2. **KYMEA Board Approval**

KENTUCKY MUNICIPAL ENERGY AGENCY
ALL REQUIREMENTS PROJECT -- WHOLESALE POWER RATE SCHEDULE

1. Availability

This rate schedule for wholesale power is available to Members purchasing power and energy and related services from the Agency under the All Requirements Power Sales Contract ("Contract").

2. Applicability

This rate schedule is applicable to Members taking service from the Agency under the Contract ("AR Members").

3. Character of Service

Wholesale power furnished under this rate schedule at one or more Points of Delivery as set forth in Schedule A shall be sixty-hertz, three-phase, alternating current.

4. Monthly Rates and Charges

The Member's monthly bill will include the following charges:

AR Project Charges

Demand Charge	$14.044 per kW times Monthly Billing Demand
Energy Charge	$0.024702 per kWh times Monthly Energy Requirement
Energy Cost Adjustment (ECA) Charge	A charge determined monthly per Sections 6 and 7 of this Rate Schedule

Transmission Charges

a. LGE/KU Transmission Charge	$2.7736 per kW times Monthly Coincident (12-CP) Transmission Billing Demand

Applicable to AR Members receiving service over the LGE/KU transmission system. The LGE/KU Transmission Charge is updated annually effective June 1 and includes LGE/KU's Open Access Transmission Tariff (OATT) charges under:

- Schedule 10, Network Integration Transmission Service
- Schedule 1, Scheduling, System Control and Dispatch
- Schedule 2, Reactive Supply and Voltage Control from Generation Sources Service
- Schedule 3, Regulation and Frequency Response Service
- Schedule 5, Operating Reserve - Spinning Reserve Service
- Schedule 6, Operating Reserve - Supplemental Reserve Service
- Associated credits relevant to the above schedules and any new transmission tariffs

KENTUCKY MUNICIPAL ENERGY AGENCY
ALL REQUIREMENTS PROJECT -- WHOLESALE POWER RATE SCHEDULE

The LGE/KU charge is applied, by Member, based on the individual member's monthly coincident peak (12-CP) with the LKE transmission system.

b. PJM-EKPC Transmission Charge — $2.9582 per kW times Annual Coincident (1-CP) Transmission Billing Demand

Applicable to AR Members receiving service over the PJM-EKPC transmission system. The PJM-EKPC Transmission Charge is updated annually effective January 1 and includes PJM Open Access Transmission Tariff (OATT) charges under:

- Schedule 1100, Network Integration Transmission Service
- Schedule 1108, Transmission Enhancement
- Schedule 1115, Transmission Enhancement Settlement (EL05-121-009)
- Schedule(s) 1301-1311, PJM Scheduling Charges, System Control and Dispatch Service
- Schedule(s) 1313-1319, PJM Settlement, Market Monitoring, FERC Recovery, and PJM States Funding
- Schedule 1320, Transmission Owner Scheduling, System Control and Dispatch Service
- Schedule 1330, Reactive Supply and Voltage Control from Generation and Other Sources Service
- Schedule(s) 1340-1380, Regulation, Frequency Response, Reserve, and Black Start Services
- Associated credits relevant to the above schedules and any new transmission tariffs

The PJM-EKPC charge is applied, by Member, based on the individual member's annual coincident peak (1-CP) with the EKPC transmission system. The annual 1-CP update is based on PJM's defined time period of November 1 - October 31 from the previous year.

c. MISO Transmission Charge — $1.535 per kW times Monthly Billing Demand

Applicable to all AR Members. The Agency will review and update the MISO Transmission Charge annually, and more frequently if needed, to reflect changes in MISO transmission costs.

d. LGE/KU Wholesale Distribution Service Charge per Section 8 of this Rate Schedule

KENTUCKY MUNICIPAL ENERGY AGENCY
ALL REQUIREMENTS PROJECT -- WHOLESALE POWER RATE SCHEDULE

5. Billing Determinants

Monthly Billing Demand is the Member's Monthly Non-Coincident Billing Demand, except that for the months of December, January, February, and March, it is lesser of (a) the Member's Monthly Non-Coincident Billing Demand or (b) the average of the Member's maximum Monthly Non-Coincident Billing Demand occurring in each of the preceding three summer seasons (June, July, and August).

Monthly Non-Coincident Billing Demand is the highest average kW demand during a 60-minute period ending on a clock hour of the Member's total load during the monthly billing period. For Members with multiple delivery points, the Member's total load is the aggregated load of all delivery points each hour.

Monthly Transmission Billing Demand is the Member's average kW demand during LGE/KU's transmission system peak hour during the monthly billing period. This is commonly referred to as the Member's demand coincident with the LGE/KU monthly transmission system peak demand.

Annual Transmission Billing Demand is the Member's average kW demand during PJM-EKPC's transmission system peak hour during the annual billing period. This is commonly referred to as the Member's demand coincident with the PJM-EKPC annual transmission system peak demand.

Monthly Energy Requirement is the total amount of energy supplied to the Member during the monthly billing period, as determined in accordance with the Contract.

Monthly Billing Demand, Monthly Transmission Billing Demand, Annual Transmission Billing Demand, and Monthly Energy Requirement shall be based on load metered at, or appropriately compensated for losses to, the high-voltage side of delivery substations connecting the Member's system to the applicable transmission system.

Monthly Billing Demand, Monthly Transmission Billing Demand, Annual Transmission Billing Demand, and Monthly Energy Requirement shall be determined, including any load or usage on the Member's system directly served from a Member-Owned Resource, if any, as provided in the Contract.

6. Energy Cost Adjustment (ECA)

The Energy Cost Adjustment (ECA) shall be an amount equal to the product of the Energy Cost Adjustment Charge Factor (ECAF) times the Member's Monthly Energy Requirement for the current billing month. The ECA shall be included on the subsequent monthly invoice.

Collection of the ECA shall be applied as follows:

> If the computed average Days Cash on Hand for any three consecutive months < the average computed Minimum Target Days Cash on Hand for those same three consecutive months as set forth in Table 6.1, then the ECA shall be computed and collected.

KENTUCKY MUNICIPAL ENERGY AGENCY
ALL REQUIREMENTS PROJECT -- WHOLESALE POWER RATE SCHEDULE

Credit of the ECA shall be applied as follows:

If the current month's Days Cash on Hand > the Maximum Days Cash on Hand for the same month, then the ECA shall be computed and credited.

Where:

The ECAF shall be $0.003/kWh.

The Minimum Monthly Target Days Cash on Hand (DCOH) and Maximum DCOH shall be as defined in Table 6.1 below.

Table 6.1

Month-Year	Minimum Target DCOH	Maximum DCOH
Jul 2020	56	76
Aug 2020	62	76
Sep 2020	67	76
Oct 2020	71	76
Nov 2020	68	76
Dec 2020	64	76
Jan 2021	64	76
Feb 2021	66	76
Mar 2021	67	76
Apr 2021	65	76
May 2021	62	76
Jun 2021	62	76

The Days Cash on Hand shall be computed as:

Days Cash on Hand = Cash Available / Adjusted Operating Expense per Day

Where:

Cash Available = Cash and Investments

Source: KYMEA Statement of Net Position

Where:

Adjusted Operating Expense per Day = Monthly Purchase Power and Operating Expenses, less Monthly Depreciation, plus Previous Months' Adjusted Operating Expense Balance, divided by Cumulative Days of the fiscal year.

At the beginning of each fiscal year, the Previous Month's Adjusted Operating Expense

KENTUCKY MUNICIPAL ENERGY AGENCY
ALL REQUIREMENTS PROJECT -- WHOLESALE POWER RATE SCHEDULE

Balance shall be reset as zero.

Source: KYMEA Consolidated Statements of Revenue, Expenses, and Changes in Net Position

7. COVID-19 Rate Relief Plan (RRP)

In response to the COVID-19 pandemic, the Agency unveiled the KYMEA COVID-19 Rate Relief Plan ("RRP"). The RRP is aimed at alleviating the economic impact to the KYMEA Members. KYMEA and its membership stand together to provide much-needed relief to our customers. For the fiscal year 2021, the RRP lowers the DCOH minimum target from 62 days to 50 days.

Table 7.1 below, shall be applicable for the collection of the ECA for the fiscal year 2021, supersedes Table 6.1 substituting the Minimum Target DCOH with the COVID-19 Rate Relief Plan Minimum Target DCOH.

Table 7.1

Month-Year	Minimum Target DCOH	COVID-19 Rate Relief Plan Minimum Target DCOH	Maximum DCOH
Jul 2020	56	51	76
Aug 2020	62	55	76
Sep 2020	67	58	76
Oct 2020	71	60	76
Nov 2020	68	58	76
Dec 2020	64	55	76
Jan 2021	64	54	76
Feb 2021	66	54	76
Mar 2021	67	54	76
Apr 2021	65	52	76
May 2021	62	50	76
Jun 2021	62	50	76

KENTUCKY MUNICIPAL ENERGY AGENCY
ALL REQUIREMENTS PROJECT -- WHOLESALE POWER RATE SCHEDULE

8. Direct Assigned Facilities Charges

The monthly fixed charges shown in the table below are the current LGE/KU Direct Assigned Facilities Charges stated in the KYMEA-LGE/KU Wholesale Distribution Service Agreement dated 03/01/2019. These charges are based on investment in distribution facilities owned and operated by LGE/KU and include charges for substations, switchgear, and tap lines.

LGE/KU Direct Assigned Facilities Charges

AR Member	Monthly Fixed Charge
Barbourville	n/a
Bardwell	$378.25
Corbin	n/a
Falmouth	$7,189.75
Frankfort	n/a
Madisonville	$8,961.30
Paris	n/a
Providence	$1,290.64

The LGE/KU Direct Assigned Facilities Charges will be updated from time to time as needed to reflect changes in LKE/KU's charges under the Wholesale Distribution Service Agreement.

9. Power Factor Charge

Each AR Member is encouraged to take and use power in such a manner that the power factor, at the time of its monthly non-coincident peak demand, will not be less than ninety percent (90%).

If the AR Member's measured power factor, at the time of its monthly non-coincident peak demand, is less than ninety percent (90%), the Member will be assessed a Power Factor Charge as follows:

Power Factor Charge	$2.80 per kVAR applied to the amount of reactive demand in kVAR by which the metered reactive demand exceeds the reactive demand at a 90% power factor

The Agency will not assess and apply power factor charges to the Members unless the Agency is assessed similar charges from the Balancing Authority (BA) or Regional Transmission Organization (RTO), at which time the Agency will assess these charges to the Members.

KENTUCKY MUNICIPAL ENERGY AGENCY
ALL REQUIREMENTS PROJECT -- WHOLESALE POWER RATE SCHEDULE

10. Late Payment Charge

The Agency may impose a late payment charge equal to five percent (5%) of the unpaid balance on any power bill amounts not paid by the due date specified in the Contract.

11. COVID-19 Late Payment Protection Plan (LPPP)

In response to the COVID-19 pandemic, the Agency unveiled the KYMEA COVID-19 Late Payment Protection Plan ("LPPP"). The LPPP is aimed at alleviating AR member revenue collection deficiencies driven by the customer disconnect suspensions in the wake of the coronavirus.

The LPPP allows the Agency to work with AR Members who may only be able to pay a portion of their KYMEA power bill. The Agency may waive late fees and negotiate with the AR member to develop a payment schedule. The AR Member will be responsible for their power bill in its entirety by the end of the FY2021 fiscal year at which time late payment charges may be imposed.

Schedule A to AR Rate Schedule

KENTUCKY MUNICIPAL ENERGY AGENCY
ALL REQUIREMENTS PROJECT -- WHOLESALE POWER RATE SCHEDULE

SCHEDULE A
POINTS OF DELIVERY

No.	Delivery Point Name	Voltage Level
1	Barbourville City	69kV
2	Bardwell City	69kV
3	Corbin 1 North	69kV
4	Corbin 2 South	69kV
5	Falmouth 4kV	69kV
6	Frankfort Myrick 1	69kV
7	Frankfort Myrick 2	69kV
8	Frankfort Myrick 3	69kV
9	Madisonville GE	69kV
10	Madisonville West	69kV
11	Madisonville East	69kV
12	Madisonville Hospital	69kV
13	Madisonville North	69kV
14	Madisonville McCoy Road	69kV
15	Paris City 1 (Scott Street)	69kV
16	Paris City 2 (Claysville)	69kV
17	Paris City 3 (Vine St)	69kV
18	Paris City 4 (Weaver Rd)	69kV
19	Providence 4kV	69kV
20	Providence East	69kV

Approved: April 23, 2020
Effective: July 1, 2020

AR PROJECT COMMITTEE RESOLUTION

WHEREAS, the Kentucky Municipal Energy Agency ("KYMEA") has established an All Requirements Power Supply Project (the "AR Project"); and

WHEREAS, certain KYMEA Members are participating in the AR Project (the "AR Members") and have entered into All Requirements Power Sales Contracts with KYMEA (the "AR Contracts") for the purpose of setting forth the terms and conditions relating to the proposed sale of electric power and energy requirements by KYMEA to the AR Members; and

WHEREAS pursuant to the AR Contracts, the All Requirements Project Committee (the "AR Project Committee") consisting of all AR Members is tasked with the responsibility of developing and designing the all requirements power supply rates in accordance with generally accepted ratemaking principles and procedures to provide revenues to meet the anticipated revenue requirements of KYMEA (the "Revenue Requirements") to furnish electric power and energy to the AR Members; and

WHEREAS, pursuant to the AR Contracts, the KYMEA Board of Directors shall establish and maintain rates under the AR Contracts that will provide revenues which are sufficient, but only sufficient, to meet the anticipated Revenue Requirements of KYMEA in providing electric power and energy to its AR Members; and

WHERAS, the KYMEA Board of Directors shall not unreasonably withhold its approval and establishment of all requirements rates developed by the AR Project Committee;

NOW THEREFORE BE IT RESOLVED:

Section 1. AR Project Committee Rate Schedule. The AR Project Committee has designed and developed a rate schedule, budget proposal and the methodology for all requirements rates which is attached hereto as Exhibit A (the "AR Rate Schedule") to generate revenues to pay the costs and expenses associated with the provision of electric power and energy requirements under the AR Contracts. The AR Project Committee hereby approves and submits the AR Rate Schedule to the KYMEA Board of Directors for approval.

Section 2. Effective Date. The AR Project Committee recommends that the AR Rate Schedule be effective July 1, 2020 and remain in effect until amended and revised.

Adopted and approved on April 23, 2020

Action Items

H. Action Items

- H.1 FY 2021 AR & Service Rates
- H.2 Open Records Request Policy
- H.3 Hedge Plan/Trading Matrix & Hedge Approval
- H.4 CEO Performance Review

KYMEA

FY2021 Service Rates

Doug Buresh

April 23, 2020

Service Rates – Membership Rate

Service Rates

- Effective July 1, 2020
  - ➢ Membership - $0.12/MWh
  - ➢ Dispatch - $0.45/MWh
  - ➢ Transmission - $0.56/MWh
    - $0.38/MWh for transmission service + $0.18/MWh for energy carrying charge
  - ➢ Resource Planning - $0.20/MWh
    - Allocation of $253K across 8 AR Members. Rate is likely lower if non-AR members participate
- Non-AR Member Summary
- Discussion/Actions

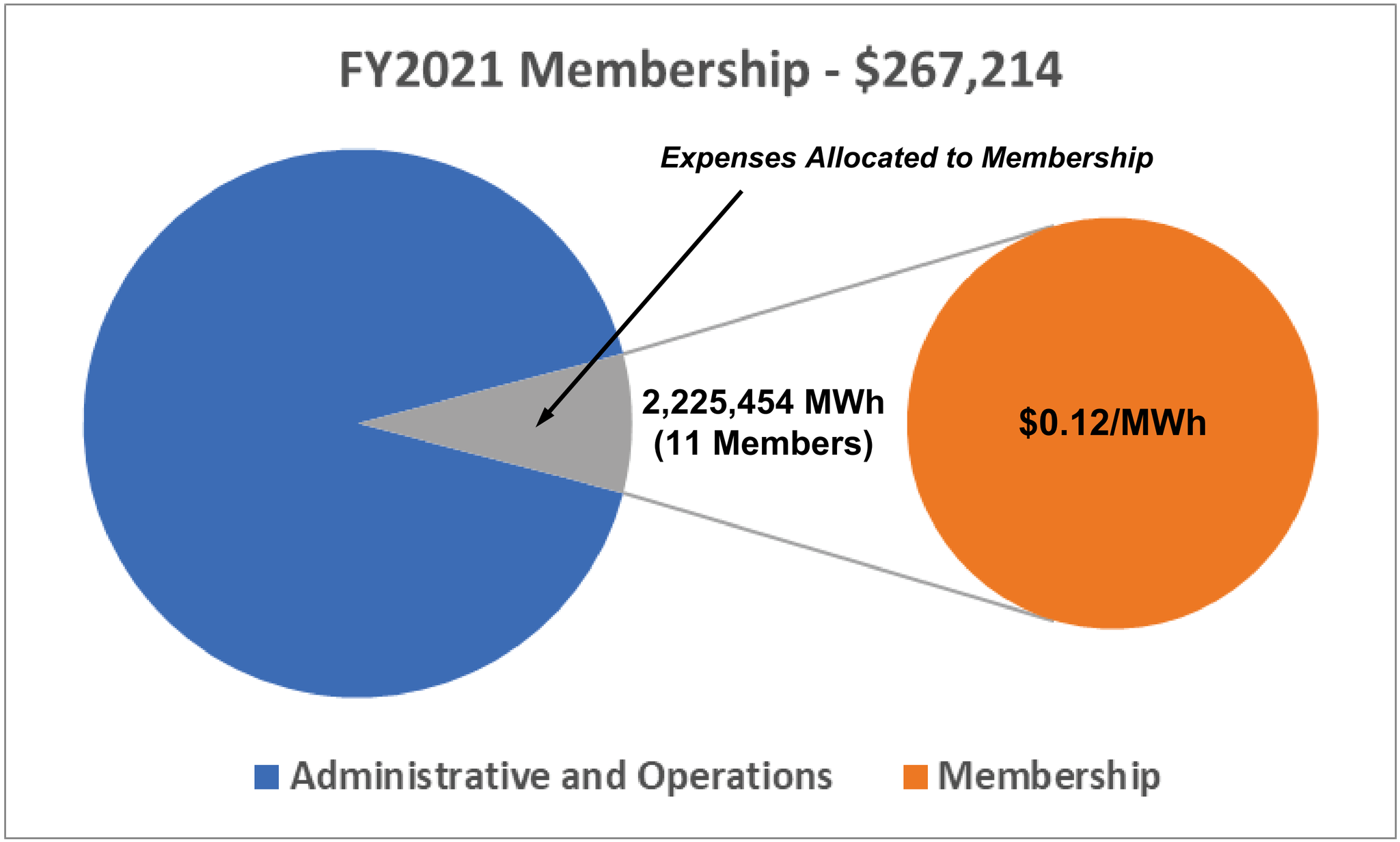
Membership/User Rate

Membership Rate

- $267,214 allocated across 11 members ($0.12/MWh)
- Allocated Expenses: 10% of Salaries/Benefits, General Counsel, Advisors, Select Administrative Office Expenses, and Board Expenses
- Direct Expenses: APPA, KMUA, Lobbyist, and Strategic Planning Retreat

Same $0.12/MWh Rate as FY2020

Membership/User Rate



Fee applied for membership with eligibility to receive agency services

Service Rates – Dispatch Rate

Service Rates

- Effective July 1, 2020
  - ➢ Membership - $0.12/MWh
  - ➢ Dispatch - $0.45/MWh
  - ➢ Transmission - $0.56/MWh
    - $0.38/MWh for transmission service + $0.18/MWh for energy carrying charge
  - ➢ Resource Planning - $0.20/MWh
    - Allocation of $253K across 8 AR Members. Rate is likely lower if non-AR members participate
- Non-AR Member Summary
- Discussion/Actions

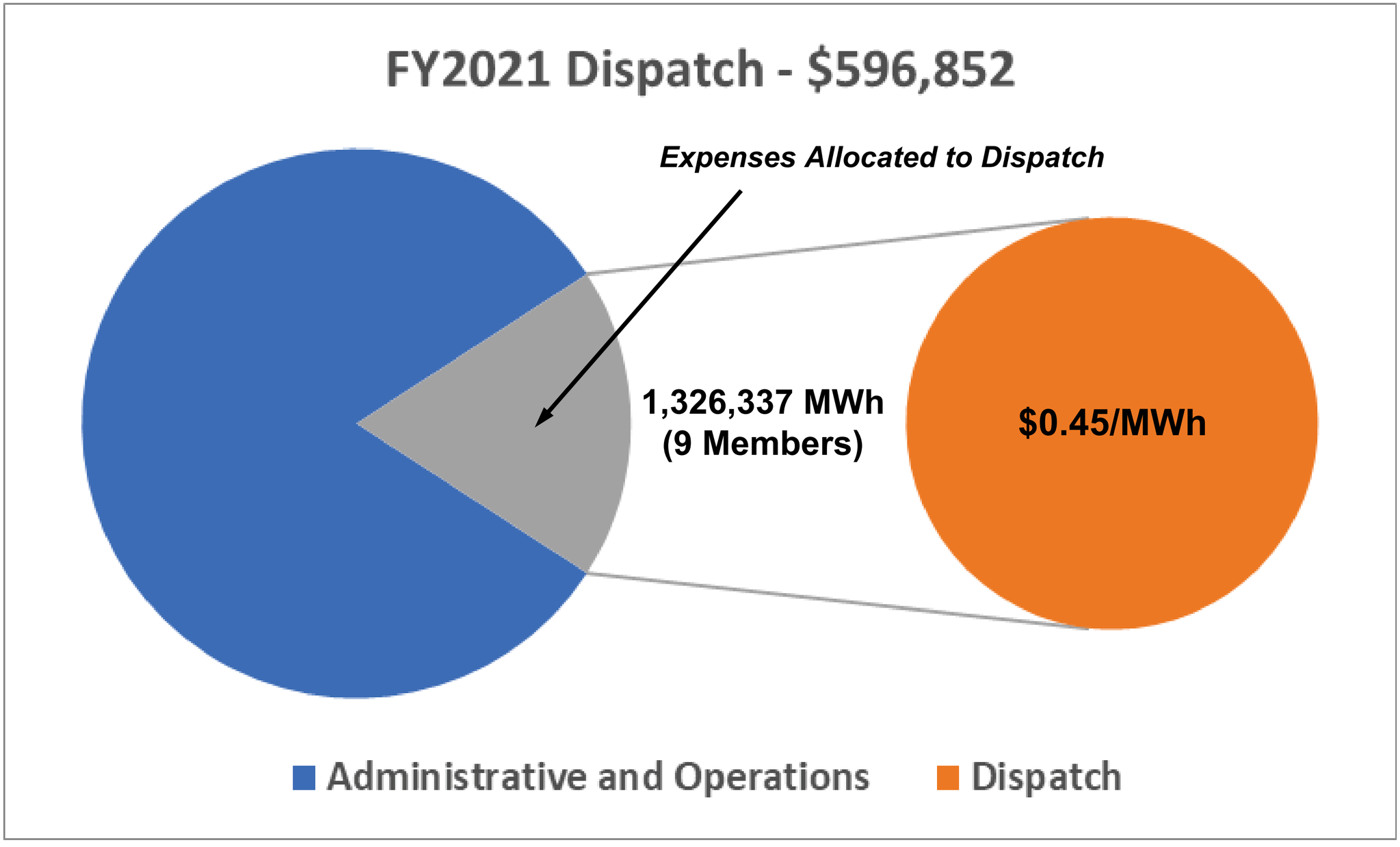
Dispatch/MAC Rate

Dispatch Rate

- $596,852 allocated across 9 members ($0.45/MWh)
- Load Dispatch for 8 AR Members
- SEPA Dispatch for 9 SEPA Members (AR + Benham)
- Allocated Expenses: 7.6% of Salaries/Benefits and Select Administrative Office Expenses
- Direct MAC Expenses: ACES Standard Service

Same $0.45/MWh Fee as FY2020

Dispatch/MAC Rate



Includes load and SEPA dispatch services

Service Rates – Transmission Rate

Service Rates

- Effective July 1, 2020
  - ➢ Membership - $0.12/MWh
  - ➢ Dispatch - $0.45/MWh
  - ➢ Transmission - $0.56/MWh
    - $0.38/MWh for transmission service + $0.18/MWh for energy carrying charge
  - ➢ Resource Planning - $0.20/MWh
    - Allocation of $253K across 8 AR Members. Rate is likely lower if non-AR members participate
- Non-AR Member Summary
- Discussion/Actions

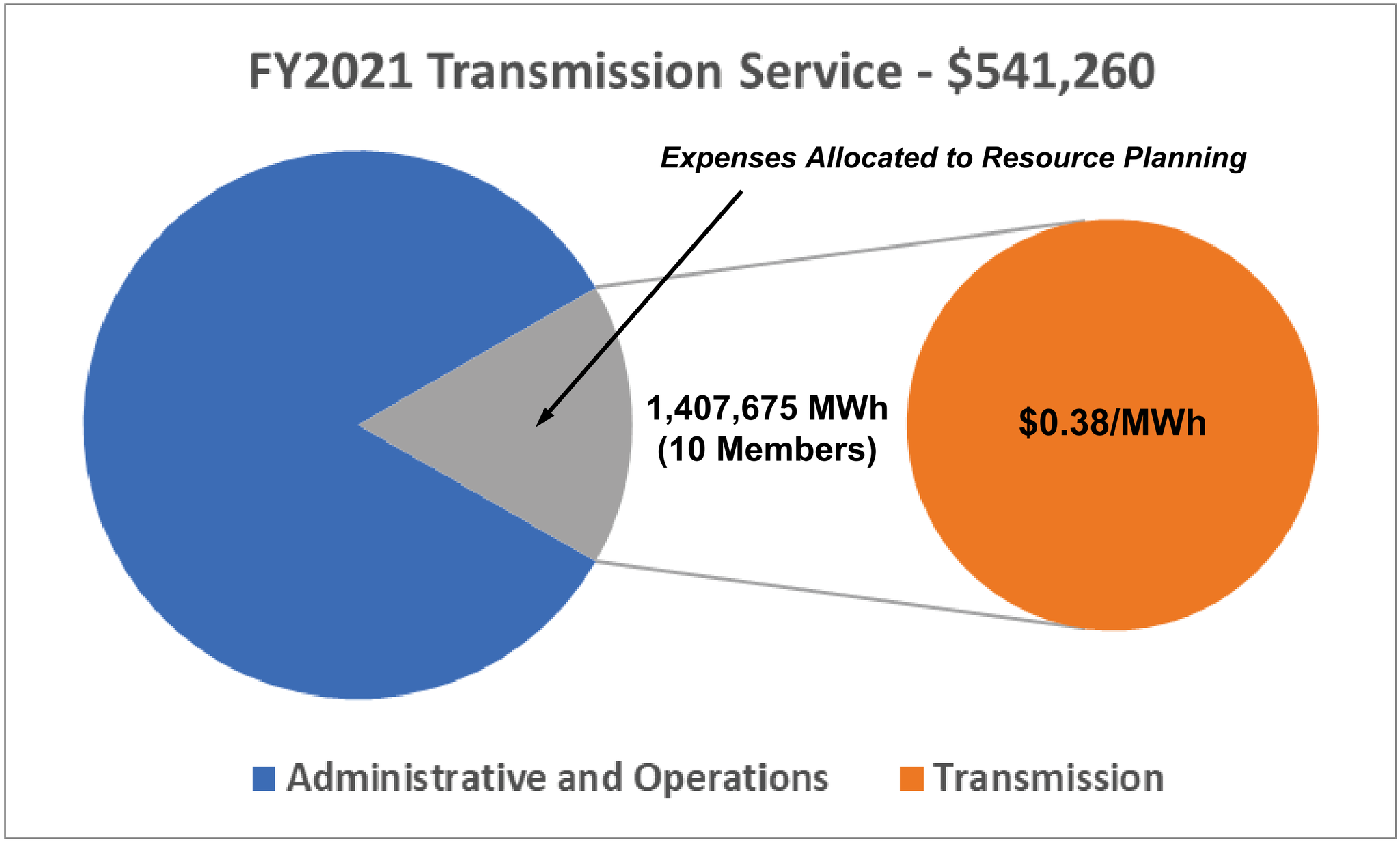
Transmission Service (A&G Portion)

Transmission Service

- $541,260 allocated across 10 members ($0.38/MWh)
- Allocated Expenses: 10% of Salaries/Benefits, General Counsel, Consultants, and Certain Administrative Office Expenses
- Direct Expenses: TAPS, Transmission Study Fees, PME Hardware/Software, Engineering Support, Communications Expenses

New FY2021 Fee of $0.38/MWh. Increase over FY2020 Fee of $0.20/MWh to account for studies, metering, communications, monitoring, and engineering expenses

Transmission Fee (A&G Portion)



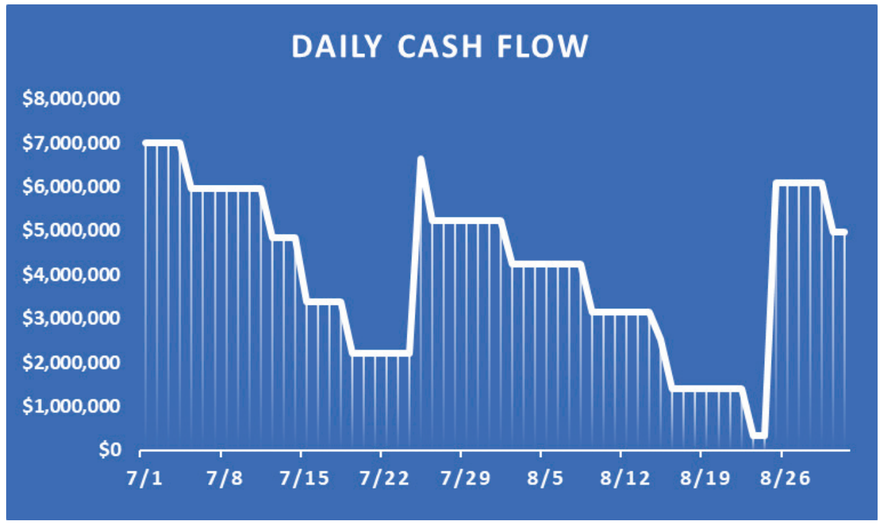
Energy Carrying Charge (ECC)

Energy Carrying Charge (ECC)

- The ECC is the RTO (MISO and PJM) daily cash flow needs plus collateral requirements to participate in the RTO markets. The ECC is the cost of carry.

Daily Cash Flow

- The RTO expense payments for energy, transmission, and ancillary services occurs earlier than the collection of payments (either directly from the AR member or from the non-AR member power provider). KYMEA maintains $7 million in working capital to maintain a positive cash position.



RTO Market Participant

- To ensure fair, efficient and competitive markets, MISO and PJM require organizations to register as Market Participants before participating in their Open Access Transmission, Energy and Operating Reserve Markets. As a Market Participant, KYMEA becomes a legal entity certified by MISO to submit bids to purchase energy, submit offers to supply energy and operating reserve, hold financial transmission or auction revenue rights and other market-related activities. As a market participant, KYMEA is required to maintain $3 million in combined collateral at MISO and PJM.

Timing: Payments and Receipts

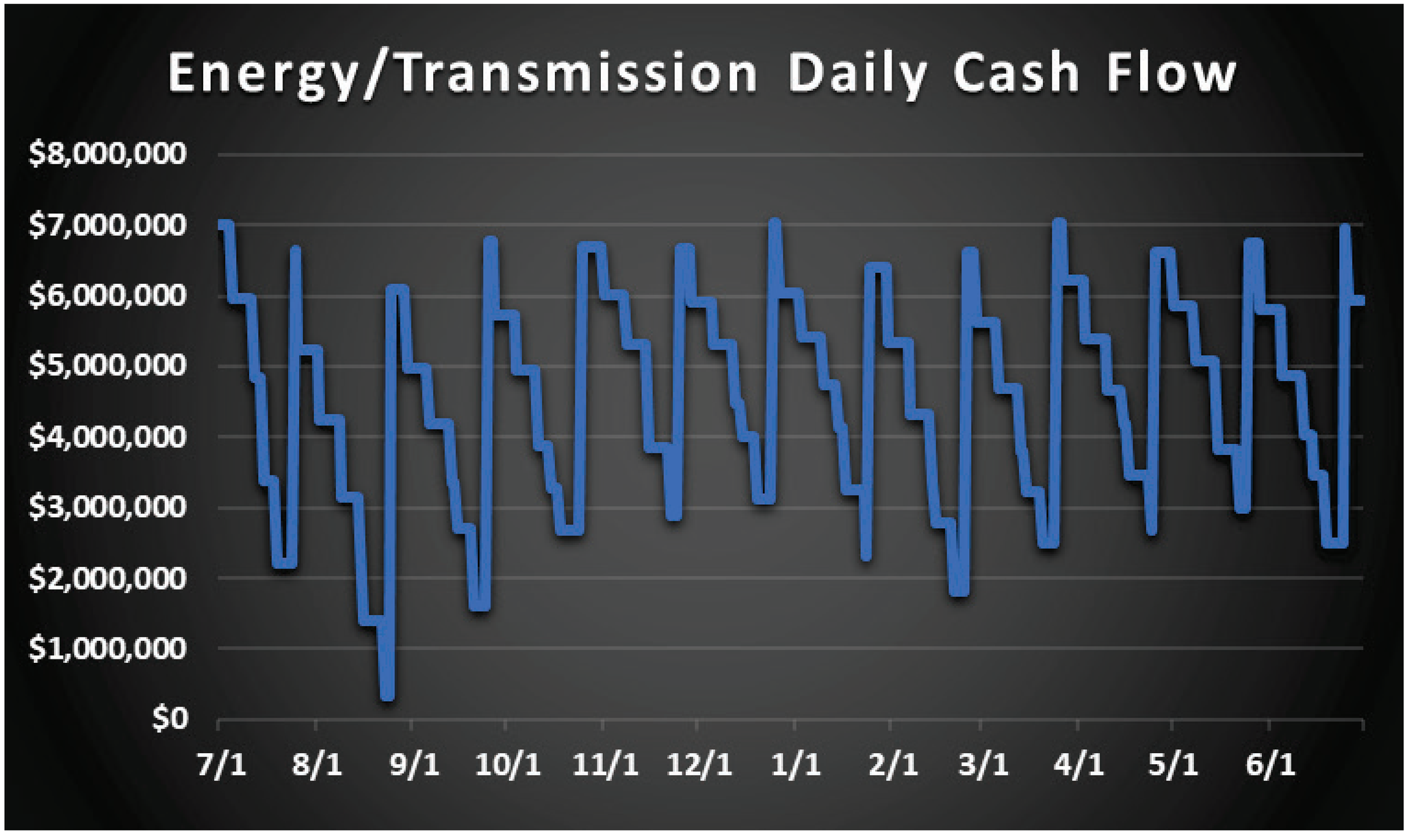
Payments

- MISO/PJM Energy: Paid each Friday for all MISO energy, ancillary services, and other energy related charges (previous week balance)
- PJM Network Transmission: Paid on the 15th (previous balance balance)
- MISO Point-to-Point Transmission: Paid on the 15th (previous month balance)
- LGE/KU Network Transmission: Paid on the 15th of next month (previous balance – 45 day lag)

Receipts

- MISO/PJM Energy
  - AR Members: Payment on 25th (previous month balance). Payment is recovered via demand and energy rate.
  - AMP Members: Payment on 25th (previous month balance)
- MISO Point-to-Point Transmission
  - AR Members: Non-depancake payment on 25th (previous month balance). Payment is recovered via demand rate.
  - AMP Members: Non-depancake payment on 25th (previous month balance)
  - LGE/KU Reimbursement: Depancake payment on 15th of next month (previous balance – 45 day lag)
- LGE/KU and PJM Network Transmission
  - AR and AMP Members: Payment on 25th (previous month balance)

Timing: Fiscal Year Daily Cash Flow



Working Capital Contribution vs Energy Carrying Charge

Two Ways for Transmission Members to Contribute

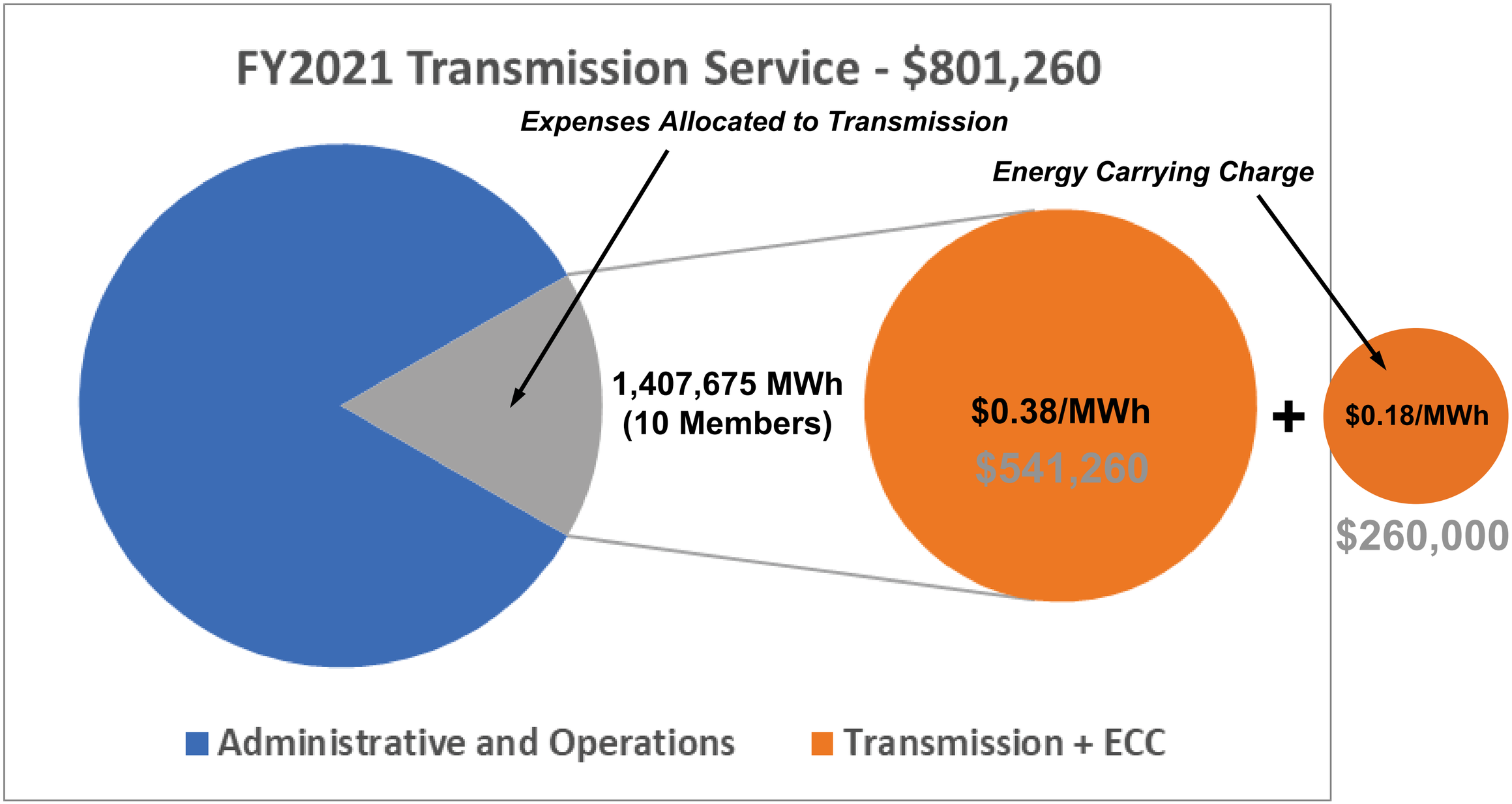
1. Contribute load weighted share of $10 million working capital fund (based on Peak NCP).
2. Or, pay the annual energy carrying charge of $0.18 per MWh for each MWh of load.

Annual Energy Carrying Charge is assessed each month based on actual energy as measured at the high-side of the transformer.

Member	Peak (NCP) MW		Working Capital $	Energy MWh		Carrying Charge $
Barbourville	199	$	669,609	89,248	$	16,484
Bardwell	20	$	66,745	9,007	$	1,664
Benham	17	$	56,713	6,277	$	1,159
Berea	291	$	979,185	132,721	$	24,514
Corbin	189	$	635,765	83,960	$	15,508
Falmouth	42	$	141,862	19,242	$	3,554
Frankfort	1,430	$	4,819,963	689,693	$	127,387
Madisonville	578	$	1,947,022	289,666	$	53,502
Paris	142	$	477,920	60,247	$	11,128
Providence	61	$	205,216	27,614	$	5,100
TOTALS	2,967	$	10,000,000	1,407,675	$	260,000

Interest Rate		2.60%
Members		10
MWh		1,407,675
$/MWh	$	0.18

Transmission Fee + Carrying Charge



Includes agency transmission service + energy carrying charge

Service Rates – Resource Planning

Service Rates

- Effective July 1, 2020
  - ➢ Membership - $0.12/MWh
  - ➢ Dispatch - $0.45/MWh
  - ➢ Transmission - $0.56/MWh
    - $0.38/MWh for transmission service + $0.18/MWh for energy carrying charge
  - ➢ Resource Planning - $0.20/MWh (maximum)
    - Allocation of $253K across 8 AR Members. Rate is likely lower if non-AR members participate
- Non-AR Member Summary
- Discussion/Actions

Resource Planning Rate

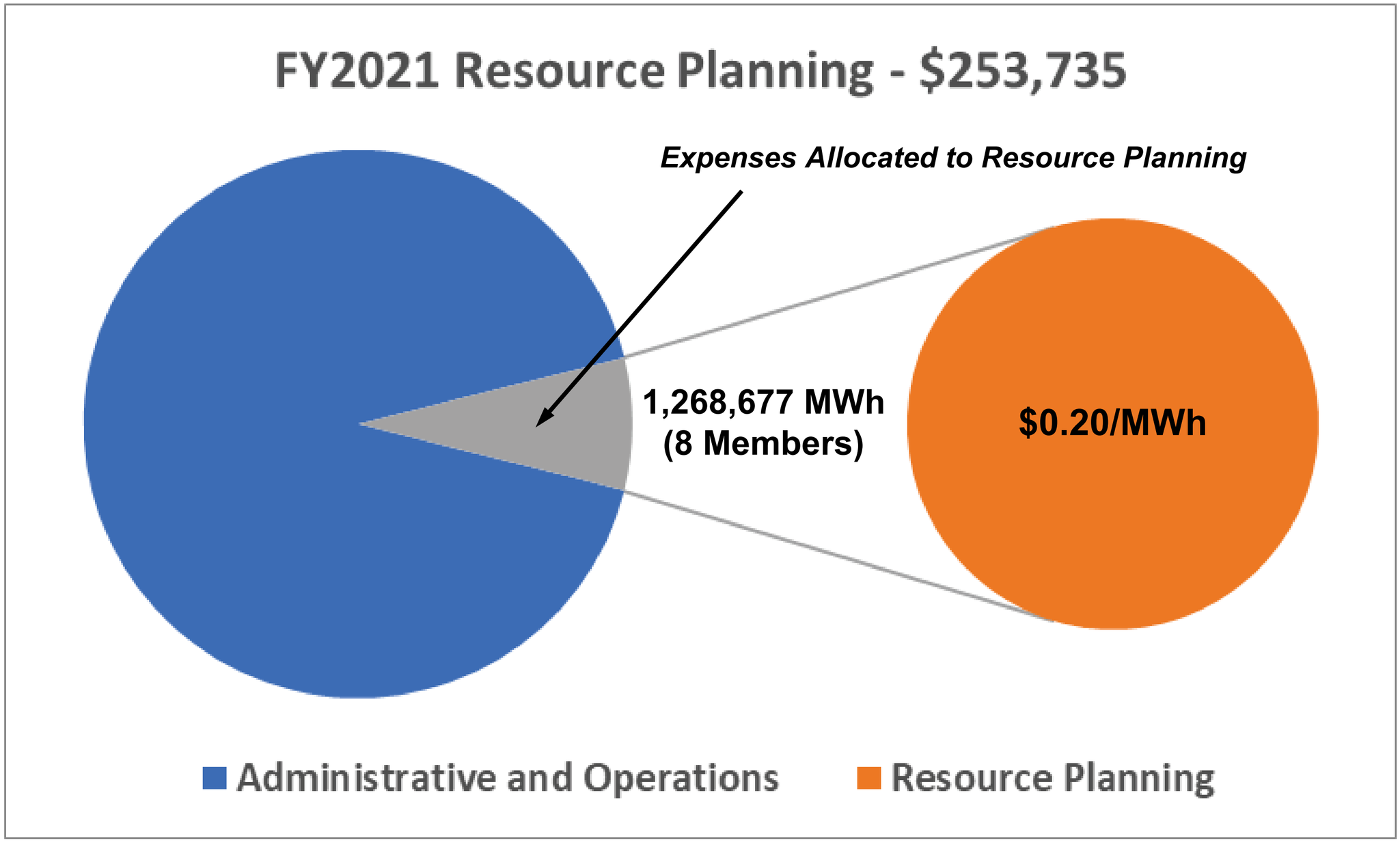
Resource Planning Rate

- $253,735 allocated across 8 members ($0.20/MWh)
- Allocated Expenses: 9.3% of Salaries/Benefits, General Counsel, Consultants, and Certain Administrative Office Expenses
- Direct MAC Expenses: Software, Data, Market Intelligence, and Study Support

Same $0.20/MWh Fee as FY2020

- *Note: $0.20/MWh Rate is maximum. Rate is likely lower if non-AR members participate.*

Resource Planning Fee



Includes load and SEPA dispatch services

Non-AR Member Summary

Service Rates

- Effective July 1, 2020
  - Membership - $0.12/MWh
  - Dispatch - $0.45/MWh
  - Transmission - $0.56/MWh
    - $0.38/MWh for transmission service + $0.18/MWh for energy carrying charge
  - Resource Planning - $0.20/MWh (maximum)
    - Allocation of $253K across 8 AR Members. Rate is likely lower if non-AR members participate
- Non-AR Member Summary
- Discussion/Actions

Non-AR Members Projected Expense

Service	Benham	Berea	Owensboro
Membership	$ 754	$ 15,936	$ 98,192
Dispatch	$ 200	$ -	$ -
Transmission	$ 3,573	$ 75,546	$ -
Resource Planning	$ -	$ -	$ -
TOTAL	$ 4,526	$ 91,482	$ 98,192
MWh	6,277	132,721	817,779
$/MWh	$ 0.72	$ 0.69	$ 0.12

Note (1): MWh will be updated based on actual MWh from July 2019 – June 2020.

Note (2): AR Members Services collected through AR Demand Charge.

Discussion/Actions

Service Rates

- Effective July 1, 2020
  - Membership - $0.12/MWh
  - Dispatch - $0.45/MWh
  - Transmission - $0.56/MWh
    - $0.38/MWh for transmission service + $0.18/MWh for energy carrying charge
  - Resource Planning - $0.20/MWh (maximum)
    - Allocation of $253K across 8 AR Members. Rate is likely lower if non-AR members participate
- Non-AR Member Summary
- Discussion/Actions

Discussion/Actions

Discussion

Staff Recommends the KYMEA Board approve the FY2021 Service Rates.

Actions – Rate Schedule Exhibit B

1. **KYMEA Board Approval**

Services Rate Schedule

KENTUCKY MUNICIPAL ENERGY AGENCY
SERVICES RATE SCHEDULE

1. Availability

   This rate schedule for agency services is available to KYMEA Members on an as-requested basis.

2. Applicability

   Members may purchase from the Agency one or more of the services listed in section 3 of this rate schedule. This rate schedule does not apply to AR Project participants, because the costs of the services listed in section 3 are included in the rates they pay under their respective All Requirements Power Supply Contracts.

3. Rates and Charges

   The Member's monthly bill will include the following charges as applicable:

Membership Services	$0.12 per MWh applied to total Member wholesale energy transmitted, as measured at the transmission voltage side of the delivery facilities
Dispatch / MAC Service	$0.45 per MWh applied to total energy dispatched for the Member by the Agency
Transmission Service	$0.38 per MWh applied to total Member wholesale energy transmitted, as measured at the transmission voltage side of the delivery facilities
Transmission Energy Carrying Charge	$0.18 per MWh applied to total Member wholesale energy transmitted, as measured at the transmission voltage side of the delivery facilities
Resource Planning Service	$0.20 per MWh applied to total Member wholesale energy requirements, as measured at the transmission voltage side of the delivery facilities Note: The $0.20 per MWh may be reduced if additional non-AR Project Members participate in the Resource Planning Service

Approved: April 23, 2020
Effective: July 1, 2020

KENTUCKY MUNICIPAL ENERGY AGENCY
SERVICES RATE SCHEDULE

4. Late Payment Charge

Each Member shall provide the Agency payment in full within 15 days of invoicing (due date). For any unpaid balance of the amount due, the Agency may impose a late payment charge. Such charge shall be equal to five percent (5%) of the unpaid balance as of the due date.

RESOLUTION ESTABLISHING RATE SCHEDULES

WHEREAS, the Kentucky Municipal Energy Agency ("KYMEA") has entered into All Requirements Power Sales Contracts (the "AR Contracts") with certain of its Members (the "AR Members") for the purpose of setting forth the terms and conditions relating to the proposed sale of electric power and energy requirements by KYMEA to the AR Members; and

WHEREAS pursuant to the AR Contracts, the All Requirements Project Committee (the "AR Project Committee") consisting of all AR Members is tasked with the responsibility of developing and designing the rates in accordance with generally accepted ratemaking principles and procedures to provide revenues to meet the anticipated revenue requirements of KYMEA (the "Revenue Requirements") to furnish electric power and energy to the AR Members; and

WHEREAS, pursuant to the AR Contracts, the KYMEA Board of Directors shall establish and maintain rates under the AR Contracts that will provide revenues which are sufficient, but only sufficient, to meet the anticipated Revenue Requirements of KYMEA in providing electric power and energy to its AR Members; and

WHERAS, the KYMEA Board of Directors shall not unreasonably withhold its approval and establishment of all requirements rates developed by the AR Project Committee; and

WHEREAS, additionally, the KYMEA Board of Directors shall establish rates and charges for all products and services KYMEA provides to its Members which shall be consistent with prudent utility practice;

NOW THEREFORE BE IT RESOLVED:

Section 1. AR Project Committee Rate Schedule. The AR Project Committee has designed and developed a rate schedule, budget proposal and the methodology for recovery of the costs and expenses associated with the provision of electric power and energy requirements under the AR Contracts and has submitted said Rate Schedule to the KYMEA Board of Directors for approval.

Section 2. Approval of AR Rate Schedule. After review of the All Requirements Project – Wholesale Power Rate Schedule attached hereto as Exhibit A (the "AR Rate Schedule"), the KYMEA Board of Directors hereby (i) determines that the AR Rate Schedule has been developed in accordance with generally accepted ratemaking principles and procedures and is consistent with prudent utility practice and will provide revenues which are sufficient to meet the anticipated Revenue Requirements of KYMEA in providing electric power and energy to its AR Members and (ii) approves the AR Rate Schedule and the implementation of the rates set forth therein.

Section 3. Approval of Rates for Other Member Services and Benefits. The KYMEA Board of Directors has reviewed and approved a proposed budget for Fiscal Year ending June 30, 2021 and hereby adopts and approves a rate schedule which is attached hereto as Exhibit B (the "Member Rate Schedule") for services and benefits for those Members who are not AR Members.

Section 4. Effective Dates. The AR Rate Schedule and the Member Rate Schedule shall be effective July 1, 2020 and shall remain in effect until amended and revised.

Adopted and approved on April 23, 2020

KENTUCKY MUNICIPAL ENERGY AGENCY

Policy Relating to Inspection of Public Records

The Kentucky Municipal Energy Agency ("KYMEA"), is organized and existing under Section 65.210 to 65.300 of the Kentucky Revised Statutes ("KRS"), as amended, known as the "Interlocal Cooperation Act" (the "Act"), to act as a joint agency for the mutual advantage of its members (the "Members"). It is the policy of KYMEA, pursuant to KRS 61.870 to 61.884, to make accessible the public records of KYMEA by onsite inspection, U.S. Mail or electronic transmission to any person on written application to KYMEA. Application requesting a public record of KYMEA may be made by completing the KYMEA Open Records Request Form, which may be requested from the designated custodian of records for KYMEA, or by written application, signed by the applicant, with the applicant's name printed legibly, describing the records requested.

Inspection of public records of KYMEA may be made at KYMEA's principal office located at:

1700 Eastpoint Parkway, Suite 220
Louisville, Kentucky 40223

Regular business hours are from 9:00 a.m. to 4:30 p.m., Monday through Friday, each week, except holidays.

The designated custodian of records for KYMEA is its President and CEO. Assistance in completing the application form will be provided by a KYMEA employee on request. Email requests for records should be sent to contact@kymea.org and should include a mailing address. Please direct all open records requests on the KYMEA Open Records Request Form or a legally compliant written application containing the requestor's name printed legibly, the requestor's signature, and a description of the records to:

Kentucky Municipal Energy Agency
1700 Eastpoint Parkway, Suite 220
Louisville, Kentucky 40223
Attn: Director of Administrative Services and Communications

Applicants for public records shall be notified in writing no later than three (3) working days after receipt of an application of KYMEA's decision. If all or any portion of the application is denied, KYMEA will identify the specific exception to the open records law authorizing the denial and explain how the exception applies to the record or part of the record withheld.

An applicant who resides or has his/her principal place of business in Jefferson County, Kentucky, may be required by KYMEA to inspect the public records described in the written application within the offices of KYMEA during the regular business hours. An applicant who requests that copies of the records identified in his/her request be mailed, and who resides or has his/her principal place of business outside of Jefferson County, Kentucky, may be required by KYMEA to inspect the public records described in the written application within the offices of

KYMA if he/she cannot precisely describe the records and/or the records are not readily available within KYMEA. Suitable facilities will be made available for review of the records. At no time shall any applicant remove public records from the offices of KYMEA.

Copies of written material in the public records of this agency shall be furnished to any person requesting them for a non-commercial purpose as defined in open records law, on payment of a fee of ten (10) cents per page; copies of nonwritten records (photographs, maps, material stored in computer files or libraries, etc.) shall be furnished to any person requesting them for a non-commercial purpose as defined in open records law, on payment of a charge equal to the actual cost of producing copies of such records by the most economical process not likely to damage or alter the record. All costs are required to be paid in advance of receiving the copies. Any requestor requesting mailed copies shall also pay the cost of postage for mailing such copies in advance of the receipt of the copies.

Applicants requesting copies of public records for a commercial purpose (as defined in KRS 61.870(4)(a) and (b) shall provide a certified statement to KYMEA stating the commercial purpose for which the records shall be used, and shall be required to enter into a contract with KYMEA. The contract shall state the fee required by KYMEA to produce copies to be used for a commercial purpose.

In order to carry out its purpose and the directives of its Members, KYMEA may be required to enter into non-disclosure agreements or may receive information which KYMEA has been requested to keep confidential. In addition KYMEA may need to preserve the confidentiality of information or proposals when entering into competitive negotiation with one or more persons for services or goods.

KYMEA has established a Policy relating to Confidential Information dated December 16, 2015 (the "Confidential Information Policy") to establish rules by which its Directors, its Members and the governing body, employees, officers and consultants of such Members and KYMEA's employees, officers and consultants will review and utilize any and all information, material or discussions which KYMEA has agreed, or is required, to keep confidential (the "Confidential Information"). If KYMEA, and/or any Representative or Member Representative (as defined in the Confidential Information Policy) receives an open records request or other demand for Confidential Information, then KYMEA or the Representative or Member Representative shall notify the Provider (as defined in the Confidential Information Policy) of such Confidential Information, as soon as possible, to allow the Provider the opportunity to protect any Confidential Information from disclosure. A copy of KYMEA's Confidential Information Policy may be obtained from KYMEA's Director of Administrative Services and Communication at the address set forth above.

This Policy is dated _____, 2020, the date of its approval by the KYMEA Board of Directors.

KYMEA

Hedge Plan/Trading Matrix & Hedge Approval

Doug Buresh

April 23, 2020

Enterprise Risk Management Policy

THREE APPENDICES

APPENDIX A 36
TRADING AUTHORITY PROCEDURES 36
APPENDIX B 43
TRADING MATRIX 43
APPENDIX C 54
HEDGE PLAN 54

Energy Risks

Trading Authority Matrix/Hedge Plan

- **Trading Authority Matrix**
  - **Matrix to lay-out trading limits consistent with the limits approved by the Board (used by ACES for risk oversight)**
- **Hedge Plan**
  - **Two-year plan to assess strategy and risk exposure (energy, fuel, transmission)**
  - **Longer term plan incorporated in IRP**

Trading Authority Matrix

Approved Products

Product Name and description	Authorized Locations
Hourly Power (physical): Purchase and sale of physical power in the real-time/hourly markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions.	• Any location with the ability to deliver to KYMEA's loads
Hourly Power (financial): Purchase and sale of financial power in the real-time/hourly markets supporting hedging transactions entered into by KYMEA and any hedge optimization trades. This product includes fixed for float swaps and futures contracts.	• LGEE interface with PJM • LGEE interface with MISO • MISO Hub • PJM Hub • Other delivery points as reviewed by the IRC and authorized by the CEO on a transaction specific basis
Day-Ahead Power (physical): Purchase and sale of physical power in the day-ahead markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions.	• Any location with the ability to deliver to KYMEA's loads
Day-Ahead Power (financial): Purchase and sale of financial power in the day-ahead markets supporting hedging transactions entered into by KYMEA and any hedge optimization trades. This product includes fixed for float swaps and futures contracts.	• LGEE interface with PJM • LGEE interface with MISO • MISO Hub • PJM Hub • Other delivery points as reviewed by • the IRC and authorized by the CEO on a transaction specific basis
Weekly and Balance of Week Power (physical): Purchase and sale of physical power in the weekly and balance of week markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions.	• Any location with the ability to deliver to KYMEA's loads

Trading Authority Matrix

Approved Products (continued)

Product Name and Description	Authorized Locations
Weekly and Balance of Week Power (financial): Purchase and sale of financial power in the weekly and balance of week markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions. This product includes fixed for float swaps and futures contracts.	• LGEE interface with PJM • LGEE interface with MISO • MISO Hub • PJM Hub • Other delivery points as reviewed by • the IRC and authorized by the CEO on a transaction specific basis
Monthly and Balance of Month Power (physical): Purchase and sale of physical power in the monthly and balance of month markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions.	• Any location with the ability to deliver to KYMEA's loads as reviewed by the IRC and authorized by the CEO on a transaction specific basis
Monthly and Balance of Month Power (financial): Purchase and sale of financial power in the monthly and balance of month markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions. This product includes fixed for float swaps and futures contracts.	• LGEE interface with PJM • LGEE interface with MISO • MISO Hub • PJM Hub • Other delivery points as reviewed by • the IRC and authorized by the CEO on a transaction specific basis
Annual physical Power (physical): Purchase and sale of physical power in the annual markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions.	• Any location with the ability to deliver to KYMEA's loads as reviewed by the IRC and authorized by the CEO, BROC, and Board of Directors on a transaction specific basis
Annual financial Power (financial): Purchase and sale of financial power in the annual markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions. This product includes fixed for float swaps and futures contracts.	• LGEE interface with PJM • LGEE interface with MISO • MISO Hub • PJM Hub • Other delivery points as reviewed by • the IRC and authorized by the CEO on a transaction specific basis
Non-firm Transmission: The purchase of, and resale of excess non-firm transmission necessary to move energy from the Point of Delivery to the Point of Receipt associated with a tag for such energy or any contract between KYMEA and a qualified counterparty.	• LGEE • PJM • MISO • TVA

Product Name and Description	Authorized Locations
Firm Transmission: The purchase of, and resale of excess firm transmission necessary to move energy from the Point of Delivery to the Point of Receipt associated with a tag for such energy or any contract between KYMEA and a qualified counterparty.	• LGEE • PJM • MISO • TVA
Financial Transmission Rights (FTRs): The purchase of the right to financially settle the congestion charge from one LMP node to another LMP node. FTR purchases must be associated with an existing or anticipated forward financial energy sale within the limits specified in the current Hedge Plan. Exceptions are during outage events and during summer peak periods, but FTR positions shall never exceed hedge plan recommended monthly hedge volumes during any given month.	• All MISO and PJM LMP nodes between which KYMEA has financial exposure
Ancillary Services: Those services required by an RTO or ISO to serve load or provide generation into the market. Ancillary services include but are not limited to Black Start, Regulation, Spinning Reserves, Non- spinning Reserves, RSGs, Operating Reserves, Synchronized Condensing, Balancing, etc.	• LGEE • PJM • MISO • TVA
Capacity: The reliability product associated with physical generation.	• LGEE • PJM • MISO • TVA
Power Monthly Put Options: The ability to financially or physically sell power at a fixed price to counterparty for a specific period of time.	• At authorized locations for hourly power-financial

Trading Authority Matrix

Approved Products (continued)

Product Name and Description	Authorized Locations
Power Monthly Call Options: The ability to financially or physically purchase power at fixed price from a counterparty for a specified period of time.	• At authorized locations for hourly power-financials
Financial Natural Gas: Purchase and sale of natural gas futures contracts	• Henry Hub (NYMEX look alike)
Financial Natural Gas Options: The option to buy and sell call options and put options on financial futures contracts	• Henry Hub (NYMEX look alike)
Financial Natural Gas - Locational and Temporal Basis Swaps: Basis swaps are used to hedge exposure to basis risks, such as locational risk or time exposure risk. For example, a natural gas basis swap could be used to hedge a locational price risk: the seller receives from the buyer a Nymex settlement value (usually the average of the last three days closing prices) plus a negotiated fixed basis, and pays the buyer the published index value of gas sold at a specified location	• Any delivery point on the Texas Gas or ANR system

Energy Risks

Power Trading Authority Matrix

1. ELECTRIC POWER, TRANSMISSION (INCLUDES FTR) AND CAPACITY TRADING AUTHORITY

The following outlines transaction limits, definitions, and procedural requirements for power transmission and capacity transactions.

Table 2. Kentucky Municipal Energy Agency – Power Trading Authorization Table

		Per Transaction Limits (up to)					Net Per Trading Day Limits (Net Forward Positions) (up to)		Aggregate Limits of Net Forward (up to)	
Title	Product	Term	Lead Time	MW Size	$/MWh Pur.	$/MWh Sales	Total Volume MWh	Total $	Total Volume MWh	Total $
Board of Directors	Electric Power Physical and Financial Swaps, Futures & Options and Transmission	No Limit	No Limit	No Limit	No Limit		No Limit	No Limit	No Limit	No Limit
	Capacity	No Limit	No Limit	No Limit	No Limit		N/A	No Limit	No Limit	No Limit
CEO	Electric Power Physical and Financial Swaps, Futures & Options and Transmission	< 1 Year	≤ 36 Months	300*	No Limit		900,000	$50 Million	900,000	$50 Million
	Capacity	≤ 1 Year	≤ 4 Years	350	No Limit		N/A	No Limit	350 MW annually	No Limit
VP of Market Analytics	Electric Power Physical and Financial Swaps, Futures & Options and Transmission	> 1 Week < 12 Months	≤ 24 Months	150*	$150	No Limit	450,000	$25 Million	450,000	$25 Million
		> 1 Day ≤ 1 Week		300	$500	No Limit				
		≤ 1 Day		300	No Limit					
APM	Electric Power Physical and Financial Swaps, Futures & Options and Transmission	> 1 Week ≤ Bal of Month	Current and Prompt Month	100	$100	No Limit	80,000	$10 Million	160,000	$15 Million
		> 1 Day ≤ 1 Week		300	$250	No Limit				
		≤ 1 Day		300	No Limit	No Limit				

* Transaction quantities not to exceed the Position Report.

Energy Risks

Natural Gas Trading Authority Matrix

2. Financial Natural Gas Trading Authority

The following outlines transaction limits, definitions, and procedural requirements for financial natural gas transactions.

Table 3. Kentucky Municipal Energy Agency – Natural Gas Trading Authorization Table

		Per Transaction Limits (up to)					Net Per Trading Day Limits of Net Forward Positions (up to)		Aggregate Limits of Net Forward (up to)	
Title	Product	Term	Lead Time	MMBTU/ HR.	$/MMBtu Pur.	$/MMBtu Sales	Total Volume MMBtu	Total $	Total Volume MMBtu	Total $
Board of Directors	Natural Gas Physical and Financial Swaps, Futures & Options and Transmission	No Limit	No Limit	No Limit	No Limit		No Limit	No Limit	No Limit	No Limit
CEO	Natural Gas Physical and Financial Swaps, Futures & Options and Transmission	< 1 Year	≤ 36 Months	1,050*	No Limit		3,000,000	$25 Million	3,000,000	$25 Million
VP of Market Analytics	Natural Gas Physical and Financial Swaps, Futures & Options and Transmission	> 1 Week < 12 Months	≤ 24 Months	1,050*	$12.75	NA	1,000,000	$12.75 Million	1,000,000	$12.75 Million
		> 1 Day ≤ 1 Week		1,050	$50.00	NA				
		≤ 1 Day		1,050	No Limit	NA				
APM	Natural Gas Physical and Financial Swaps, Futures & Options and Transmission	> 1 Week ≤ Bal of Month	Current and Prompt Month	1,050	$8.50	NA	168,000	$1.5 Million	168,000	$1.5 Million
		> 1 Day ≤ 1 Week		1,050	$25.00	NA				
		≤ 1 Day		1,050	No Limit	NA				

* Transaction quantities not to exceed the Position Report.

Hedge Plan
Position Report

Position Report: Comprehensive Energy Hedging

- The Position Report employs a comprehensive energy hedging methodology whereby the MWh equivalent of all energy hedges are compared to the expected native load of KYMEA.
- The report also considers location (basis) and deliverability to KYMEA's native load. Total energy hedged is the MWh equivalent of the sum of fuel purchases and electricity purchases.
- To apply as an energy hedge, fuel purchases must be combined with physical generation ownership or contracted capacity. The MWh equivalent hedge from fuel purchases will be the volume of MMBtu's of fuel procured for the unit or contract divided by the expected average heat rate of the generation unit or contract divided by 1,000.

Hedge Plan
Congestion Hedging

Congestion Hedging and Financial Transmission Rights

It is likely that KYMEA's physical capacity and energy hedges may not be procured at delivery points that are at the location of its native load.

- **Congestion risk** is the possibility of adverse price differentials between the location of the energy sources and the location of native load.
- **Congestion Hedges:** Annual Auction Revenue Rights (ARR) and the Financial Transmission Rights (FTR) markets, purchasing delivered energy, or executing basis swaps with a bilateral counterparty.
- FTRs provide a financial hedge against potential adverse financial impacts of congestion risk in the day-ahead energy market. It is important to note that FTR's do not hedge the transmission loss component of the Locational Marginal Price.

Enterprise Risk Management Policy

THREE APPENDICES

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Trading Authority Procedures

KYMEA Board Approved on April 24, 2019

Present Criteria

Greater than one month and less than a year

Equal to or greater than a year duration

Recommended Change

Greater than one month and less than or equal to a year

Greater than a year duration

Sales Transactions

The CEO shall have the authority to execute sales trades that meet the following criteria;

a. For transactions equal to or with less than a month duration:
b. A contractual relationship exists to allow the transaction to occur
c. The characteristics and quantity sold represents excess resources as determined by the position report

For transactions with greater than one month and less than a year duration:

a. A contractual relationship exists to allow the transaction to occur
b. The characteristics and quantity sold represents excess resources as determined by the position report
c. The transaction is submitted to and approved by the IRC and by BROC

For transactions equal to or greater than a year duration:

a. A contractual relationship exists to allow the transaction to occur
b. Excess resources as determined by the position report
c. The transaction is submitted to and approved by the IRC and BROC
d. The transaction is submitted to and approved by the Board

Purchase Transactions

The CEO shall have the authority to execute trades to procure capacity and energy as necessary to replace existing resources that have become unavailable or shortfalls in the portfolio that meet the following criteria:

For transactions equal to or with less than a month duration:

a. A contractual relationship exists to allow the transaction to occur
b. The characteristics and quantity sold represents excess resources as determined by the position report

For transactions with greater than one month and less than a year duration:

a. A contractual relationship exists to allow the transaction to occur
b. The characteristics and quantity sold represents excess resources as determined by the position report
c. The transaction is submitted to and approved by the IRC and BROC

For transactions equal to or greater than a year duration:

a. A contractual relationship exists to allow the transaction to occur
b. Excess resources as determined by the position report
c. The transaction is submitted to and approved by the IRC and BROC
d. The transaction is submitted to and approved by the Board

Joppa Coal Price Hedge
Jun 2020 – May 2021

- **KYMEA has two options for Joppa Energy Price**
- **Monthly or Annual**

- **The Monthly Price is known after-the-fact (following month) making it somewhat difficult to dispatch the unit when you don't know the precise price.**
- **The Annual Price is fixed and known for each of the following 12 months.**

  The price is confidential and was disclosed to each Board member last week.

  Based on historical prices and volatility, staff recommends the Board approve the annual Facility Firm Energy Price.

APPENDIX B

TRADING MATRIX

APPENDIX B

TRADING MATRIX

Table 1. Kentucky Municipal Energy Agency – Approved Products

Product Name and description	Authorized Locations
Hourly Power (physical): Purchase and sale of physical power in the real-time/hourly markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions.	• Any location with the ability to deliver to KYMEA's loads
Hourly Power (financial): Purchase and sale of financial power in the real-time/hourly markets supporting hedging transactions entered into by KYMEA and any hedge optimization trades. This product includes fixed for float swaps and futures contracts.	• LGEE interface with PJM • LGEE interface with MISO • MISO Hub • PJM Hub • Other delivery points as reviewed by the IRC and authorized by the CEO on a transaction specific basis
Day-Ahead Power (physical): Purchase and sale of physical power in the day-ahead markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions.	• Any location with the ability to deliver to KYMEA's loads
Day-Ahead Power (financial): Purchase and sale of financial power in the day-ahead markets supporting hedging transactions entered into by KYMEA and any hedge optimization trades. This product includes fixed for float swaps and futures contracts.	• LGEE interface with PJM • LGEE interface with MISO • MISO Hub • PJM Hub • Other delivery points as reviewed by • the IRC and authorized by the CEO on a transaction specific basis
Weekly and Balance of Week Power (physical): Purchase and sale of physical power in the weekly and balance of week markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions.	• Any location with the ability to deliver to KYMEA's loads

Product Name and Description	Authorized Locations
Weekly and Balance of Week Power (financial): Purchase and sale of financial power in the weekly and balance of week markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions. This product includes fixed for float swaps and futures contracts.	• LGEE interface with PJM • LGEE interface with MISO • MISO Hub • PJM Hub • Other delivery points as reviewed by • the IRC and authorized by the CEO on a transaction specific basis
Monthly and Balance of Month Power (physical): Purchase and sale of physical power in the monthly and balance of month markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions.	• Any location with the ability to deliver to KYMEA's loads as reviewed by the IRC and authorized by the CEO on a transaction specific basis
Monthly and Balance of Month Power (financial): Purchase and sale of financial power in the monthly and balance of month markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions. This product includes fixed for float swaps and futures contracts.	• LGEE interface with PJM • LGEE interface with MISO • MISO Hub • PJM Hub • Other delivery points as reviewed by • the IRC and authorized by the CEO on a transaction specific basis
Annual physical Power (physical): Purchase and sale of physical power in the annual markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions.	• Any location with the ability to deliver to KYMEA's loads as reviewed by the IRC and authorized by the CEO, BROC, and Board of Directors on a transaction specific basis
Annual financial Power (financial): Purchase and sale of financial power in the annual markets supporting hedging transactions entered into by KYMEA or optimization of hedging transactions. This product includes fixed for float swaps and futures contracts.	• LGEE interface with PJM • LGEE interface with MISO • MISO Hub • PJM Hub • Other delivery points as reviewed by • the IRC and authorized by the CEO on a transaction specific basis
Non-firm Transmission: The purchase of, and resale of excess non-firm transmission necessary to move energy from the Point of Delivery to the Point of Receipt associated with a tag for such energy or any contract between KYMEA and a qualified counterparty.	• LGEE • PJM • MISO • TVA

Product Name and Description	Authorized Locations
Firm Transmission: The purchase of, and resale of excess firm transmission necessary to move energy from the Point of Delivery to the Point of Receipt associated with a tag for such energy or any contract between KYMEA and a qualified counterparty.	• LGEE • PJM • MISO • TVA
Financial Transmission Rights (FTRs): The purchase of the right to financially settle the congestion charge from one LMP node to another LMP node. FTR purchases must be associated with an existing or anticipated forward financial energy sale within the limits specified in the current Hedge Plan. Exceptions are during outage events and during summer peak periods, but FTR positions shall never exceed hedge plan recommended monthly hedge volumes during any given month.	• All MISO and PJM LMP nodes between which KYMEA has financial exposure
Ancillary Services: Those services required by an RTO or ISO to serve load or provide generation into the market. Ancillary services include but are not limited to Black Start, Regulation, Spinning Reserves, Non- spinning Reserves, RSGs, Operating Reserves, Synchronized Condensing, Balancing, etc.	• LGEE • PJM • MISO • TVA
Capacity: The reliability product associated with physical generation.	• LGEE • PJM • MISO • TVA
Power Monthly Put Options: The ability to financially or physically sell power at a fixed price to counterparty for a specific period of time.	• At authorized locations for hourly power-financial

Product Name and Description	Authorized Locations
Power Monthly Call Options: The ability to financially or physically purchase power at fixed price from a counterparty for a specified period of time.	• At authorized locations for hourly power-financials
Financial Natural Gas: Purchase and sale of natural gas futures contracts	• Henry Hub (NYMEX look alike)
Financial Natural Gas Options: The option to buy and sell call options and put options on financial futures contracts	• Henry Hub (NYMEX look alike)
Financial Natural Gas - Locational and Temporal Basis Swaps: Basis swaps are used to hedge exposure to basis risks, such as locational risk or time exposure risk. For example, a natural gas basis swap could be used to hedge a locational price risk: the seller receives from the buyer a Nymex settlement value (usually the average of the last three days closing prices) plus a negotiated fixed basis, and pays the buyer the published index value of gas sold at a specified location	• Any delivery point on the Texas Gas or ANR system

(1) Term refers to the length of any single transaction for the product in question.
(2) Forward Start Limitation means the same as Lead Time and represents the time period from the date a trade is executed to the start of the trade term

The CEO may delegate all or a portion of his authority to a qualified person, in writing or by email, for limited periods of time or for specific transactions, including pre- approved transactions and conditional transactions. The Director of Power Marketing, with the approval of the CEO, may delegate the execution of hedge optimization trading to a person qualified to make such trades, in writing or by email, for limited periods of time or for specific transactions, including pre-approved transactions and conditional transactions. Any delegation shall identify the products, volume, terms, and duration of the authority to be delegated; must be in writing; and must be submitted to both the Manager of Risk and Special Projects and ACES Power Marketing (or KYMEA's Third Party Provider "TPP").

The CEO shall determine in writing the person or persons who are qualified to exercise trading authority which may be delegated under the provisions of this Section and shall provide the determination to the Manager of Risk and Special Products and to ACES Power Marketing (or TPP). The determination shall be

reaffirmed or reissued by the CEO at least once every quarter and at any time there is a change in the person or persons determined by the CEO to be qualified to exercise trades.

1. ELECTRIC POWER, TRANSMISSION (INCLUDES FTR) AND CAPACITY TRADING AUTHORITY

The following outlines transaction limits, definitions, and procedural requirements for power transmission and capacity transactions.

Table 2. Kentucky Municipal Energy Agency – Power Trading Authorization Table

		Per Transaction Limits (up to)					Net Per Trading Day Limits (Net Forward Positions) (up to)		Aggregate Limits of Net Forward (up to)	
Title	Product	Term	Lead Time	MW Size	$/MWh		Total Volume MWh	Total $	Total Volume MWh	Total $
					Pur.	Sales				
Board of Directors	Electric Power Physical and Financial Swaps, Futures & Options and Transmission	No Limit	No Limit	No Limit	No Limit		No Limit	No Limit	No Limit	No Limit
	Capacity	No Limit	No Limit	No Limit	No Limit		N/A	No Limit	No Limit	No Limit
CEO	Electric Power Physical and Financial Swaps, Futures & Options and Transmission	< 1 Year	≤ 36 Months	300*	No Limit		900,000	$50 Million	900,000	$50 Million
	Capacity	≤ 1 Year	≤ 4 Years	350	No Limit		N/A	No Limit	350 MW annually	No Limit
VP of Market Analytics	Electric Power Physical and Financial Swaps, Futures & Options and Transmission	> 1 Week < 12 Months	≤ 24 Months	150*	$150	No Limit	450,000	$25 Million	450,000	$25 Million
		> 1 Day ≤ 1 Week		300	$500	No Limit				
		≤ 1 Day		300	No Limit					
APM	Electric Power Physical and Financial Swaps, Futures & Options and Transmission	> 1 Week ≤ Bal of Month	Current and Prompt Month	100	$100	No Limit	80,000	$10 Million	160,000	$15 Million
		> 1 Day ≤ 1 Week		300	$250	No Limit				
		≤ 1 Day		300	No Limit	No Limit				

* Transaction quantities not to exceed the Position Report.

a. Electric Power and Transmission Trading Authority Matrix Explanations

1. Per Transaction Limits represent the maximum term, maximum lead time, MW volume limit, and purchase or sales per unit limit expressed in dollars/MWh for each transaction executed.
2. Net per Trading Day Limits represent the Net Forward Positions MWh volume limit and dollar limit for all transactions executed in a single trading day.
3. Aggregate Limits represent the Net Forward Positions total MWh volume limit and dollar limit for all outstanding forward transactions.
4. Lead Time represents the time period from the date a trade is executed to the start of the trade term.
5. The dollar limits are based upon electric power only and do not include transmission, however, the Term, Lead Time, and Volume limits do apply to transmission.
6. Authorized products include electric power and transmission, including both physical and financial derivatives, as well as bilateral ancillary services, capacity, PJM/MISO imports & exports and PJM/MISO virtuals consistent with Table 1. Financial derivatives may be Over-the-Counter swaps, options, swaptions and futures.

b. Delivery Locations

Trading at delivery locations outside the eastern interconnect is <u>not</u> permitted. Trading at delivery locations that are normal to the daily course of business for KYMEA is specified in Table 1. Trading at any other delivery locations within the eastern interconnection shall be restricted as follows:

1. <u>Restricted Delivery Locations</u>: All other eastern interconnection locations (only with approval by the CEO).

c. Transmission Firmness and Volume

Transmission purchases need to be of equal or greater firmness and of equal or greater volumes to the energy component for which such transmission purchase is associated, unless pre- approved by the CEO. (Note: Purchasing small percentages of additional transmission to cover transmission losses is required.) Transmission purchases will be governed by the term, lead time, and MW size parameters in the trading authority matrix, but the MWh volume limits shall not apply.

2. Financial Natural Gas Trading Authority

The following outlines transaction limits, definitions, and procedural requirements for financial natural gas transactions.

Table 3. Kentucky Municipal Energy Agency – Natural Gas Trading Authorization Table

		Per Transaction Limits (up to)					Net Per Trading Day Limits of Net Forward Positions (up to)		Aggregate Limits of Net Forward (up to)	
Title	Product	Term	Lead Time	MMBTU/ HR.	$/MMBtu		Total Volume MMBtu	Total $	Total Volume MMBtu	Total $
					Pur.	Sales				
Board of Directors	Natural Gas Physical and Financial Swaps, Futures & Options and Transmission	No Limit	No Limit	No Limit	No Limit		No Limit	No Limit	No Limit	No Limit
CEO	Natural Gas Physical and Financial Swaps, Futures & Options and Transmission	< 1 Year	≤ 36 Months	1,050*	No Limit		3,000,000	$25 Million	3,000,000	$25 Million
VP of Market Analytics	Natural Gas Physical and Financial Swaps, Futures & Options and Transmission	> 1 Week < 12 Months	≤ 24 Months	1,050*	$12.75	NA	1,000,000	$12.75 Million	1,000,000	$12.75 Million
		> 1 Day ≤ 1 Week		1,050	$50.00	NA				
		≤ 1 Day		1,050	No Limit	NA				
APM	Natural Gas Physical and Financial Swaps, Futures & Options and Transmission	> 1 Week ≤ Bal of Month	Current and Prompt Month	1,050	$8.50	NA	168,000	$1.5 Million	168,000	$1.5 Million
		> 1 Day ≤ 1 Week		1,050	$25.00	NA				
		≤ 1 Day		1,050	No Limit	NA				

* Transaction quantities not to exceed the Position Report.

a. Natural Gas Trading Authority Matrix Explanations

1. Per Transaction Limits represent the maximum term, maximum lead time, total number of financial contracts limit, and dollars/MMBtu limit for each transaction executed.
2. Aggregate Limits represent the Net Forward Positions total number of financial contracts limit and dollar limit for all outstanding forward transactions.
3. Authorized products include both exchange-traded and over-the-counter derivative products.
4. Lead Time represents the time period from the date a trade is executed to the start of the trade term.
5. Aggregate Limits apply only to natural gas trading, but combined power and natural gas cannot exceed the higher of natural gas limits or power limits.

b. The trading of natural gas options, both buying and selling of such options, shall not result in a negative natural gas delta position (no short natural gas options positions) at the time such trade is placed.

KYMEA Physical/Financial

Abridged Transaction Analysis Form

Trade Date:
Trader:
Product:
Term:

	MW/MMBtu	MWh/MMBtu
Quantity:		
Delivery Point:		

Trading Authority Level:

____ VP Market Analytics
____ CEO
____ Board of Directors

Trade Number:
Counterparty:
Trade Price ($/MWh):

	Bid	Ask
ICE/Mkt Price ($/MWh):		

APPENDIX C

HEDGE PLAN

APPENDIX C

HEDGE PLAN

OBJECTIVE:

The Kentucky Municipal Energy Agency ("KYMEA") Hedge Plan outlines the plan that will guide disciplined hedging of financial risks due to fluctuations in the cost of market power and natural gas. The financial risks are often amplified by weather-influenced agency load obligations which can be highly correlated to the price movements of the market commodities. This Hedge Plan is designed to limit the financial exposure to these price and load fluctuations by fixing the commodity prices at fixed and known amounts. The primary purpose of this plan is to identify specific time and volume criteria for procuring projected power supply portfolio components.

Hedge Plan Criteria:

There are physical and financial instruments available for hedging KYMEA's market risks. Standard products are on-peak and off-peak fixed-for-floating swaps available for power and natural gas. There are also derivative products such as call and put options, which gives the buyer the right, but not the obligation, to buy or sell a product at a predetermined price and date.

KYMEA's existing power supply portfolio and load obligations can be thought of as a collection of derivative products. The purchase power agreements (PPA's) are heat rate call options which give KYMEA the right, but not the obligation, to strike hourly on the PPA contract. Conversely, the native load obligation, which ensures the hourly physical delivery of power to KYMEA All Requirements members at a predetermined energy rate is equivalent to the members possessing an hourly call option with the agency.

To understand and evaluate the agency's risk exposure; market and portfolio models are run to develop the agency's Position Report. The Position Report summarizes KYMEA's monthly on-peak and off-peak volume exposure considering the most recent forward curves for power and natural gas, the PPA contracts, and the forecasted hourly native load obligations.

While the Position Report calculates the agency's financial exposure, it is not required that KYMEA hedge its entire exposure identified in the Position Report. It is permissible, and perhaps desirable, to leave some exposure to the spot market. This strategy is best understood by simulating stochastic load and price scenarios to ascertain the range of volumetric risk exposure.

Accordingly, the hedge criteria in the following sections represent the risk tolerance of KYMEA and identify the processes KYMEA will employ to manage these key financial risks.

1. Position Report: Comprehensive Energy Hedging

The Position Report employs a comprehensive energy hedging methodology whereby the MWh equivalent of all energy hedges are compared to the expected native load of KYMEA. The report also considers location (basis) and deliverability to KYMEA's native load. Total energy hedged is the MWh equivalent of the sum of fuel purchases and electricity purchases. To apply as an energy hedge, fuel purchases must be combined with physical generation ownership or contracted capacity. The MWh equivalent hedge from fuel purchases will be the volume of MMBtu's of fuel procured for the unit or contract divided by the expected average heat rate of the generation unit or contract divided by 1,000.

Hedge Range

The criteria of this plan is to trade within the confines of the position report and Trading Authority Matrix. For purposes of this plan, energy needs are considered hedged or procured to the extent that the projected need is met by:

i) Authorized power transactions, as defined in KYMEA's Trading Authority Procedures, or

ii) Authorized fuel transactions combined with physical generation unit ownership, heat rate transactions, or physical capacity transactions, or

iii) Bilateral purchase power and natural gas agreements entered into by the agency with approval by the KYMEA Board of Directors.

2. Congestion Hedging and Financial Transmission Rights

It is likely that KYMEA's physical capacity and energy hedges may not be procured at delivery points that are at the location of its native load. Congestion risk is the possibility of adverse price differentials between the location of the energy sources and the location of native load. Congestion risk can be mitigated through participating in the allocation of Annual Auction Revenue Rights (ARR) and the Financial Transmission Rights (FTR) markets, purchasing delivered energy, or executing basis swaps with a bilateral counterparty. FTRs provide a financial hedge against potential adverse financial impacts of congestion risk in the day-ahead energy market. It is important to note that FTR's do not hedge the transmission loss component of the Locational Marginal Price. The Plan directs KYMEA to actively participate in the MISO and PJM allocation and auction process with a prudent and predetermined strategy for addressing the planning year and multi-year congestion risk.

Each year, KYMEA's congestion hedging needs may change as a result of its energy hedging strategies and the fluidity of the MISO and PJM allocation process, therefore, specific criteria are difficult to address via the Hedge Policy.

Executed congestion hedge strategies will be tracked against actual results and reported to the IRC and BROC. Furthermore, the results will be used to refine future congestion hedging strategy development.

Responsibility

It shall be the responsibility of the Board, BROC, CEO and IRC to ensure compliance with this plan. Implementation of this plan shall adhere to the authority granted in the Trading Authority Procedures.

Public Comments

This is an opportunity for members of the public to provide input to the KYMEA Board and is limited to 5 minutes per speaker. KYMEA welcomes your questions and requests that you submit them in writing so that we can provide an accurate response at a later date.

Upcoming Meetings and Other Business

Next Meeting is Thursday, May 28th at 10 AM at the KYMEA offices

The KYMEA Board of Directors shall hold its regular meetings on the fourth Thursday of each month, except for the months of November and December when the regular meeting shall be held on the third Wednesday. The regular meetings shall convene and commence at 10:00 AM Eastern time on said dates. The regular meetings shall be held at the KYMEA Board Room, 1700 Eastpoint Pkwy, Suite 220, Louisville, Kentucky.

2020 Board Meetings (updated 04/14/20)

Thursday, January 23, 2020, 10:00 AM Eastern Time, KYMEA Board Room

Thursday, February 27, 2020, 10:00 AM Eastern Time, KYMEA Board Room

Thursday, March 26, 2020, CANCELLED

Thursday, April 23, 2020, 10:00 AM Eastern Time, WEBEX VIDEO CALL

Thursday, May 28, 2020, 10:00 AM Eastern Time, KYMEA Board Room

Thursday, June 25, 2020, 10:00 AM Eastern Time, KYMEA Board Room

Wednesday, July 22, 2020, 1:00 PM Eastern Time, KYMEA Board Room

Thursday, August 27, 2020, 10:00 AM Eastern Time, KYMEA Board Room

Thursday, September 24, 2020, 10:00 AM Eastern Time, KYMEA Board Room

Wednesday, October 21, 2020, 10:00 AM Eastern Time, KYMEA Board Room

Wednesday, November 18, 2020, 10:00 AM Eastern Time, KYMEA Board Room

Wednesday, December 16, 2020, 10:00 AM Eastern Time, KYMEA Board Room

Closed Session

J. Closed Session

Closed Session Authorization for April 23, 2020 KYMEA Board Meeting

Approval to enter into Closed Session pursuant to KRS 61.810(1)(g) for the purpose of:

(i) Discussions between KYMEA and a representative of Illinois Power Marketing Company concerning a specific proposal relating to the existing power purchase agreement among the parties and the effect upon KYMEA's future and potential hedging strategy.

KRS 61.810(1)(g) allows for closed session for the purpose of discussions between a public agency and a representative of a business entity and discussion concerning a specific proposal, if open discussions would jeopardize the siting, retention, expansion, or upgrading of the business.

Actions Related to Matters Discussed in Closed Session

K. Actions Related to Closed Session

None expected

Adjournment