

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Kansas City Power & Light)
Company’s Notice of Intent to File an)
Application for Authority to Establish a Demand-)
Side Programs Investment Mechanism) File No. EO-2019-0132

In the Matter of KCP&L Greater Missouri)
Operations Company’s Notice of Intent to File an)
Application for Authority to Establish a Demand-)
Side Programs Investment Mechanism) File No. EO-2019-0133

NOTICE OF UPDATED APPENDIX 8.11

COMES NOW Kansas City Power & Light Company (“KCP&L”) and KCP&L Greater Missouri Operations Company (“GMO”) (collectively, the “Company”) and states as follows:

1. On November 29, 2018, the Company filed its *Joint Application to Approve DSIM Filing* for MEEIA Cycle 3 (“Application”), which included its MEEIA Cycle 3 2019-2022 Filing and related appendices in the above-captioned dockets. Included in the filed appendices was Appendix 8.11 – Additional Integrated Resource Plan Results (“Appendix 8.11”).

2. At the request of the Staff (“Staff”) for the Missouri Public Service Commission (“Commission”) and in response to Staff’s Deficiency No. 3 identified in Docket No. EO-2018-0268, in KCP&L’s Internal Resource Plan (“IRP”), the Company submits the attached updated Appendix 8.11,

WHEREFORE, Kansas City Power & Light Company and KCP&L Greater Missouri Operations Company respectfully request that the Commission and its Staff take notice of the updated Appendix 8.11.

Respectfully submitted,

/s/ Roger W. Steiner

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**Attorneys for Kansas City Power & Light
Company and KCP&L Greater Missouri
Operations Company**

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the above and foregoing document was served upon the parties listed below (as well as all parties to the Company's MEEIA Cycle 2 dockets, EO-2015-0240 and EO-2015-0241) on this 17th day of December 2018, by either e-mail or U.S. Mail, postage prepaid.

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/s/ Roger W. Steiner

Roger W. Steiner

VERIFICATION

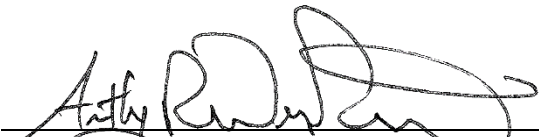
STATE OF MISSOURI)
) SS.
COUNTY OF JACKSON)

I, Tim M. Rush, having been duly sworn upon my oath, state that I am the Director of Regulatory Affairs of Kansas City Power & Light Company, that I am authorized to make this verification on behalf of KCP&L and GMO, and that the matters stated in the foregoing Application are true and correct to the best of my information, knowledge, and belief.



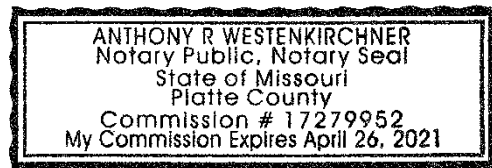
Tim M. Rush
Director, Regulatory Affairs
Kansas City Power & Light Company

SUBSCRIBED AND SWORN TO before me this 17th day of December 2018.



Notary Public

My Commission Expires: 4/26/2021



Appendix 8.11

Additional Integrated Resource Plan Results

DSM Program Revenue Requirement Impacts from Additional IRP scenarios

In addition to the DSM program evaluation contained in the KCP&L and KCP&L-GMO 2018 IRP filings, the Company evaluated the revenue requirement impact of the proposed MEEIA Cycle 3 programs. This evaluation began with the same assumptions as the 2018 IRPs with updates to reflect the proposed MEEIA Cycle 3 programs and Demand-Side Rates as reflected in the recently approved 2018 KCP&L and KCP&L-GMO rate cases. Revenue requirement impacts were estimated for 23 new Alternative Resource Plans (ARPs) that include potential additional generating plant retirements and/or potential new retail load additions; 11 ARPs for a joint KCP&L/KCP&L-GMO system and 12 ARPs for KCP&L on a stand-alone basis. The plant retirements are based on the current Westar retirement plans for LaCygne and Jeffrey Energy Center. The additional retail load is based on a potential new retail customer looking to add facilities in the KCP&L service territory.

Results consistently show the benefits of continuing DSM programs at KCP&L and KCP&L-GMO. The following tables summarize the 20-year change in the Net Present Value of Revenue Requirements (NPVRR) from DSM programs. The MEEIA Cycle 3 Benefits table shows the impact from implementing just the Cycle 3 programs while the RAP- Benefits table provides the results from Cycle 3 and continuing similar programs for the remainder of the 20-year evaluation period at approximately 75% of the Realistic Achievable Potential level. Note results are provided for both the joint KCP&L/KCP&L-GMO ARPs and the KCP&L stand-alone ARPs.

MEEIA Cycle 3 Benefits (\$ million, 20-year NPVRR change)

KCP&L/KCP&L-GMO Joint Plans

Plant Retirements	Additional Retail Load	Without CO ₂ Limits	With CO ₂ Limits
None	None	\$ 2	\$ 6
LaCygne 1,2 Jeffrey 1,2,3	None	\$ 23	\$ 28
LaCygne 1,2 Jeffrey 1,2,3	375 MW	\$ 29	\$ 35

RAP- Benefits (\$ million, 20-year NPVRR change)

KCP&L/KCP&L-GMO Joint Plans

Plant Retirements	Additional Retail Load	Without CO ₂ Limits	With CO ₂ Limits
None	None	\$ 88	\$ 106
LaCygne 1,2 Jeffrey 1,2,3	None	\$ 167	\$ 188
None	375 MW	\$ 179	\$ 200
LaCygne 1,2 Jeffrey 1,2,3	375 MW	\$ 192	\$ 213

MEEIA Cycle 3 Benefits (\$ million, 20-year NPVRR change)

KCP&L Stand-Alone Plans

Plant Retirements	Additional Retail Load	Without CO ₂ Limits	With CO ₂ Limits
None	None	\$ 4	\$ 7
LaCygne 1 & 2	None	\$ 4	\$ 7
LaCygne 1 & 2	375 MW	\$ 4	\$ 6

RAP- Benefits (\$ million, 20-year NPVRR change)

KCP&L Stand-Alone Plans

Plant Retirements	Additional Retail Load	Without CO ₂ Limits	With CO ₂ Limits
None	None	\$ 30	\$ 43
LaCygne 1 & 2	None	\$ 62	\$ 74
None	375 MW	\$ 46	\$ 57
LaCygne 1 & 2	375 MW	\$ 84	\$ 96

KCP&L/KCP&L-GMO Joint Long-Term Planning

Since the Aquila (now KCP&L-GMO) acquisition in 2008, KCP&L and KCP&L-GMO have elected to perform long-term resource planning on both a stand-alone utility basis and a joint KCP&L/KCP&L-GMO basis – looking to meet the KCP&L and KCP&L-GMO combined customer long-term energy and capacity needs. The current IRP Rules (4 CSR 240, Chapter 22) require KCP&L and KCP&L-GMO to perform resource planning on a stand-alone basis. The Company performs this stand-alone planning every three years along with annual updates for significant changes. However, along with each of these evaluations, additional analysis is completed to determine if a more effective long-term resource plan can be achieved on a joint basis, looking for resource plans that may not otherwise be available on a stand-alone utility basis.

In addition to joint resource planning, KCP&L and KCP&L-GMO meet the Southwest Power Pool (SPP) reserve margin requirement on a joint basis. To ensure that the region has sufficient generating capacity to reliably meet electric peak demand, SPP requires each entity responsible to serve load to maintain sufficient generating capacity to meet their annual projected peak demand plus a 12% reserve margin. This requirement is applied to the joint KCP&L/KCP&L-GMO native load requirement. As long as the KCP&L/KCP&L-GMO combined generating resource are sufficient to cover the KCP&L/KCP&L-GMO projected peak needs plus the 12% reserve margin, this SPP requirement is met.

The ability to view this SPP requirement on a joint basis is the result of KCP&L and KCP&L-GMO obtaining joint Network Integration Transmission Service (NITS). To ensure SPP transmission service is available between KCP&L and KCP&L-GMO, on 5/31/13 the Companies submitted a service request to SPP for joint NITS. This transmission service would allow any combination of KCP&L and KCP&L-GMO's generating resources (i.e., "Designated Resources") to serve the KCP&L and KCP&L-GMO native load needs without requesting additional SPP transmission service. After review/study of the request by SPP, joint NITS was granted and service started 8/1/15. There are no additional transmission service charges required for this service.

Section 3.2 (6) of Attachment AA to the SPP Open Access Transmission Tariff (OATT) allows Market Participants to aggregate the forecasted peak demands of Load Responsible Entities ("LREs") whose loads are served by a common set of Designated Resources for purposes of compliance with the SPP resource adequacy requirements. Since the start of the joint NITS, KCP&L and KCP&L-GMO loads are served by a common set of Designated Resources, KCP&L has an option to aggregate the forecasted KCP&L and KCP&L-GMO peak demands for resource adequacy purposes. This combined view reduces the chances that KCP&L-GMO or KCP&L on an individual basis would fail to meet the SPP resource adequacy requirement. For example, if KCP&L-GMO did not have sufficient capacity to meet the 12% reserve margin requirement and KCP&L had sufficient capacity to cover the shortfall, no penalties would be incurred by KCP&L-GMO for a failure to meet the resource adequacy requirement as compliance would be determined on a combined basis. While the Companies fully expect and plan for KCP&L-GMO and KCP&L on an individual basis to meet their share of the SPP resource adequacy requirement, the resource adequacy filings to SPP are now made on a joint utility basis.

Alternative Resource Plan Evaluation Results

The tables below provide the projected 20-year NPVRR results for each of the ARPs evaluated. These are based on the expected value over the scenarios modeled. The ARPs are ranked from the lowest to highest NPVRR, therefore the top ranked plan requires the lowest revenue requirements over the 20-year period (2019-2038). It is important to note that the lowest cost plans include the RAP- DSM levels under all plans evaluated. This is the case with additional plant retirements, additional retail load, or on a joint utility or KCP&L stand-alone basis. It is also the case with or without future CO₂ emissions restrictions such as was envisioned under EPA’s Clean Power Plan.

KCP&L/KCP&L-GMO Joint Plan Results

Without CO₂ Restrictions

Rank (L-H)	Plan	NPVRR (\$mm)	Delta	Retirements	Additions	DSM level
1	ARP8	\$29,225	\$0	No New Retirements	None	RAP-
2	ARP9	\$29,311	\$86	No New Retirements	207 MW CTs 2033,2036	MEEIA 3
3	ARP7	\$29,313	\$88	No New Retirements	207 MW CTs 2033,2036	MEEIA 2
4	ARP1	\$29,496	\$271	With Retirements	207 MW CT 2036; 621 MW CT 2033	RAP-
5	ARP5	\$29,640	\$416	With Retirements	207 MW CTs 2028,2032; 414 MW CT 2036; 621 MW CT 2033	MEEIA 3
6	ARP3	\$29,663	\$438	With Retirements	414 MW CTs 2028,2036; 621 MW CT 2033	MEEIA 2
7	ARP11	\$30,065	\$841	No New Retirements	207 MW CTs 2033,2036 / New Load	RAP-
8	ARP10	\$30,244	\$1,020	No New Retirements	207 MW CTs 2024,2027,2033,2036 / New Load	MEEIA 2
9	ARP2	\$30,404	\$1,179	With Retirements	207 MW CT 2036; 414 MW CT 2028; 621 MW CT 2033 / New Load	RAP-
10	ARP6	\$30,566	\$1,341	With Retirements	207 MW CT 2025; 414 MW CTs 2028,2032,2033,2036 / New Load	MEEIA 3
11	ARP4	\$30,595	\$1,371	With Retirements	207 MW CTs 2024,2027; 414 MW CTs 2028,2036; 621 MW CT 2033 / New Load	MEEIA 2

KCP&L/KCP&L-GMO Joint Plan Results

With CO₂ Restrictions

Rank (L-H)	Plan	NPVRR (\$mm)	Delta	Retirements	Additions	DSM level
1	ARP8	\$30,423	\$0	No New Retirements	None	RAP-
2	ARP9	\$30,524	\$100	No New Retirements	207 MW CTs 2033,2036	MEEIA 3
3	ARP7	\$30,530	\$106	No New Retirements	207 MW CTs 2033,2036	MEEIA 2
4	ARP1	\$30,550	\$127	With Retirements	207 MW CT 2036; 621 MW CT 2033	RAP-
5	ARP5	\$30,711	\$287	With Retirements	207 MW CTs 2028,2032; 414 MW CT 2036; 621 MW CT 2033	MEEIA 3
6	ARP3	\$30,739	\$315	With Retirements	414 MW CTs 2028,2036; 621 MW CT 2033	MEEIA 2
7	ARP11	\$31,340	\$916	No New Retirements	207 MW CTs 2033,2036 / New Load	RAP-
8	ARP2	\$31,535	\$1,112	With Retirements	207 MW CT 2036; 414 MW CT 2028; 621 MW CT 2033 / New Load	RAP-
9	ARP10	\$31,539	\$1,116	No New Retirements	207 MW CTs 2024,2027,2033,2036 / New Load	MEEIA 2
10	ARP6	\$31,713	\$1,290	With Retirements	207 MW CT 2025; 414 MW CTs 2028,2032,2033,2036 / New Load	MEEIA 3
11	ARP4	\$31,748	\$1,325	With Retirements	207 MW CTs 2024,2027; 414 MW CTs 2028,2036; 621 MW CT 2033 / New Load	MEEIA 2

KCP&L Stand-Alone Plan Results

Without CO₂ Restrictions

Total Revenue Requirement - EV 9EPs (No CO2)						
Rank (L-H)	Plan	NPVRR (\$mm)	Delta	Retirements	Additions	DSM level
1	ARP8K	\$19,814	\$0	No New Retirements	None	RAP-
2	ARP9K	\$19,840	\$26	No New Retirements	None	MEEIA3
3	ARP7K	\$19,844	\$30	No New Retirements	None	MEEIA2
4	ARP12K - PTC	\$19,857	\$44	No New Retirements	100 MW Wind 2020 with PTC	MEEIA2
5	ARP12K - no PTC	\$19,926	\$112	No New Retirements	100 MW Wind 2020 without PTC	MEEIA2
6	ARP1K	\$19,964	\$150	With Retirements	414 MW CT 2036	RAP-
7	ARP5K	\$20,022	\$208	With Retirements	414 MW CT 2033	MEEIA3
8	ARP3K	\$20,026	\$212	With Retirements	414 MW CT 2033	MEEIA2
9	ARP11K	\$20,584	\$770	No New Retirements	None / New Load	RAP-
10	ARP10K	\$20,631	\$817	No New Retirements	207 MW CT 2036 / New Load	MEEIA2
11	ARP2K	\$20,805	\$991	With Retirements	621 MW CT 2033 / New Load	RAP-
12	ARP6K	\$20,885	\$1,071	With Retirements	207 MW CT 2028; 621 CT 2033 / New Load	MEEIA3
13	ARP4K	\$20,889	\$1,075	With Retirements	207 MW CT 2028; 621 CT 2033 / New Load	MEEIA2

KCP&L Stand-Alone Plan Results

With CO₂ Restrictions

Total Revenue Requirement - EV 9EPs (CO2)						
Rank (L-H)	Plan	NPVRR (\$mm)	Delta	Retirements	Additions	DSM level
1	ARP8K	\$20,675	\$0	No New Retirements	None	RAP-
2	ARP9K	\$20,711	\$36	No New Retirements	None	MEEIA3
3	ARP1K	\$20,712	\$37	With Retirements	414 MW CT 2036	RAP-
4	ARP12K - PTC	\$20,716	\$41	No New Retirements	100 MW Wind 2020 with PTC	MEEIA2
5	ARP7K	\$20,718	\$43	No New Retirements	None	MEEIA2 DSM
6	ARP5K	\$20,779	\$104	With Retirements	414 MW CT 2033	MEEIA3
7	ARP12K - no PTC	\$20,784	\$110	No New Retirements	100 MW Wind 2020 without PTC	MEEIA2
8	ARP3K	\$20,786	\$111	With Retirements	414 MW CT 2033	MEEIA2
9	ARP11K	\$21,537	\$863	No New Retirements	None / New Load	RAP-
10	ARP10K	\$21,595	\$920	No New Retirements	207 MW CT 2036 / New Load	MEEIA2
11	ARP2K	\$21,636	\$961	With Retirements	621 MW CT 2033 / New Load	RAP-
12	ARP6K	\$21,726	\$1,051	With Retirements	207 MW CT 2028; 621 CT 2033 / New Load	MEEIA3
13	ARP4K	\$21,732	\$1,058	With Retirements	207 MW CT 2028; 621 CT 2033 / New Load	MEEIA2

Earnings Opportunity (EO) valuation

MEEIA’s language that “In support of this policy, the commission shall...(3)Provide timely earnings opportunities associated with cost-effective measurable and verifiable efficiency savings”¹ provides an avenue for the utility to earn on their DSM investment. It does not, however, explicitly detail how to value the earnings opportunity as it relates to the DSM investment. The MEEIA rules define earnings opportunity component to mean “the methodology approved by the commission in a utility’s filing for demand-side program approval to allow the utility to receive an earnings opportunity.”²

As described in Section 5, KCP&L proposes using the existing EO matrix values from Cycle 2 to continue for Cycle 3 as a reasonable precedent for earnings opportunity value. To further validate the reasonableness of the EO levels, KCP&L relies upon other valuation methodologies 1) Percentage of Net Benefits created, 2) NPVRR of ARPs and 3) lost utility earnings as a result of supply-side deferrals and retirements.

- 1) The simplest of these methodologies is the percentage of net benefits created. This is calculated by looking at the 100% payout EO levels in Appendix 8.7 of \$7.9 million and \$10.1 million for KCP&L-MO and KCP&L-GMO, respectively and comparing that against the TRC test net benefits created from the measures installed during the plan. In fact, this methodology was utilized in a fashion in MEEIA Cycle 1 for calculation of what was called performance incentive at the time. One key component of this calculation is to understand the avoided costs used to calculate the TRC benefits. KCP&L’s avoided cost methodology used for DSM potential study is explained in Section 5 of the filing. The table below show the various levels of earnings opportunity targets as a percentage of net benefits calculation through the prior and current MEEIA cycles as well as proposed.

EO as a Percentage of Net Benefits		
	KCP&L-MO	KCP&L-GMO
MEEIA Cycle 3		
Proposed	11.80%	15.25%

¹ 393.1075.3 (RS Mo)

² 4 CSR 240-20.092(S)

- 2) The ARPs in the IRP evaluation results can also be used to evaluate possible ranges of earnings opportunity. In looking at the ARPs on a joint company basis, there is benefit to customers (reduction in NPVRR between \$2M and \$35M) for continuing with MEEIA Cycle 3 versus stopping DSM after MEEIA 2. Furthermore, more benefit comes from continuing DSM for the 20-year planning horizon (between \$88M and \$213M). Both cases take into account the estimated 3-year EO for KCP&L-MO and KCP&L-GMO. In other words, customers benefit in all scenarios when DSM is implemented considering the full customer costs of the DSM plan.
- 3) The Company also explored the impacts of demand-side programs on the postponement of new supply-side resources or early retirement of existing supply-side resources. The Company has estimated the earnings impacts related to the changes in the resource additions or early retirements based on the rate making assumptions in the financial modeling used in this application. The impacts to KCP&L-MO and KCP&L-GMO earnings from supply-side deferrals and early retirements can be utilized as an additional data point to determine the EO. In this case, the joint company plant deferral earnings impact is large (\$18M) in the long term from continuing DSM for 20 years (RAP-) and larger (\$55M to \$67M) when additional variables come into play with plant retirements and new load additions. The 3-year MEEIA 3 DSM plan also has an earnings impact from \$0M to \$12M on a joint company basis depending on the scenario. The table below details the results of the analysis.

Lost Earnings from Postponement of New Supply Side Resources						
(Estimated Reductions in \$ Millions)						
				Joint	KCPL	GMO
DSM Level	DSM Implementation Time	Retirements	New Load	Earnings	Earnings	Earnings
MEEIA 3	3 years	No Additional	None	0.0	0.0	26.3
MEEIA 3	3 years	Additional	None	9.5	0.0	26.3
MEEIA 3	3 years	Additional	Yes	11.8	0.0	N/A
RAP -	20 years	No Additional	None	18.1	0.0	41.5
RAP -	20 years	No Additional	Yes	61.3	5.3	N/A
RAP -	20 years	Additional	None	54.8	15.0	39.0
RAP -	20 years	Additional	Yes	66.6	24.7	N/A

N/A: No new load modeled in GMO

While these methodologies approach valuation from different ways, the ranges calculated above provide solid guidance when valuing demand-side and supply-side investments equally. The values calculated for three methodologies confirm the range of reasonableness for valuation of earnings opportunity for KCP&L-MO and KCP&L-GMO as proposed in Appendix 8.7.

KCP&L/KCP&L-GMO Joint Alternative Resource Plan Descriptions

Plan Name	DSM Level	Retirements	Additional Load	Generation Addition (if needed)
ARP1	RAP-	LaCygne-2: Dec 31, 2028 Jeffrey-3: Dec 31, 2032 LaCygne-1 and Jeffrey-2: Dec 31, 2033 Jeffrey-1: Dec 31, 2034	None	621 MW in 2033 207 MW in 2036
ARP2	RAP-	LaCygne-2: Dec 31, 2028 Jeffrey-3: Dec 31, 2032 LaCygne-1 and Jeffrey-2: Dec 31, 2033 Jeffrey-1: Dec 31, 2034	2021: 75 MW 2022-2023: 150 MW 2024: 225 MW 2025-2026: 300 MW 2027 and beyond: 375 MW	414 MW in 2028 621 MW in 2033 207 MW in 2036
ARP3	MEEIA-2	LaCygne-2: Dec 31, 2028 Jeffrey-3: Dec 31, 2032 LaCygne-1 and Jeffrey-2: Dec 31, 2033 Jeffrey-1: Dec 31, 2034	None	414 MW in 2028 621 MW in 2033 414 MW in 2036
ARP4	MEEIA-2	LaCygne-2: Dec 31, 2028 Jeffrey-3: Dec 31, 2032 LaCygne-1 and Jeffrey-2: Dec 31, 2033 Jeffrey-1: Dec 31, 2034	2021: 75 MW 2022-2023: 150 MW 2024: 225 MW 2025-2026: 300 MW 2027 and beyond: 375 MW	207 MW in 2024 207 MW in 2027 414 MW in 2028 621 MW in 2033 414 MW in 2036
ARP5	MEEIA-3	LaCygne-2: Dec 31, 2028 Jeffrey-3: Dec 31, 2032 LaCygne-1 and Jeffrey-2: Dec 31, 2033 Jeffrey-1: Dec 31, 2034	None	207 MW in 2028 207 MW in 2032 621 MW in 2033 414 MW in 2036
ARP6	MEEIA-3	LaCygne-2: Dec 31, 2028 Jeffrey-3: Dec 31, 2032 LaCygne-1 and Jeffrey-2: Dec 31, 2033 Jeffrey-1: Dec 31, 2034	2021: 75 MW 2022-2023: 150 MW 2024: 225 MW 2025-2026: 300 MW 2027 and beyond: 375 MW	207 MW in 2025 414 MW in 2028 414 MW in 2032 414 MW in 2033 414 MW in 2036
ARP7	MEEIA-2	None	None	207 MW in 2033 207 MW in 2036
ARP8	RAP-	None	None	n/n
ARP9	MEEIA-3	None	None	207 MW in 2033 207 MW in 2036
ARP10	MEEIA-2	None	2021: 75 MW 2022-2023: 150 MW 2024: 225 MW 2025-2026: 300 MW 2027 and beyond: 375 MW	207 MW in 2024 207 MW in 2027 207 MW in 2033 207 MW in 2036
ARP11	RAP-	None	2021: 75 MW 2022-2023: 150 MW 2024: 225 MW 2025-2026: 300 MW 2027 and beyond: 375 MW	207 MW in 2033 207 MW in 2036

KCP&L Stand-Alone Alternative Resource Plan Descriptions

Plan Name	DSM Level	Retirements	Additional Load	Generation Addition (if needed)
ARP1K	RAP-	LaCygne-2: Dec 31, 2028 LaCygne-1: Dec 31, 2033	None	414 MW in 2036
ARP2K	RAP-	LaCygne-2: Dec 31, 2028 LaCygne-1: Dec 31, 2033	2021: 75 MW 2022-2023: 150 MW 2024: 225 MW 2025-2026: 300 MW 2027 and beyond: 375 MW	621 MW in 2033
ARP3K	MEEIA-2	LaCygne-2: Dec 31, 2028 LaCygne-1: Dec 31, 2033	None	414 MW in 2033
ARP4K	MEEIA-2	LaCygne-2: Dec 31, 2028 LaCygne-1: Dec 31, 2033	2021: 75 MW 2022-2023: 150 MW 2024: 225 MW 2025-2026: 300 MW 2027 and beyond: 375 MW	207 MW in 2028 621 MW in 2033
ARP5K	MEEIA-3	LaCygne-2: Dec 31, 2028 LaCygne-1: Dec 31, 2033	None	414 MW in 2033
ARP6K	MEEIA-3	LaCygne-2: Dec 31, 2028 LaCygne-1: Dec 31, 2033	2021: 75 MW 2022-2023: 150 MW 2024: 225 MW 2025-2026: 300 MW 2027 and beyond: 375 MW	207 MW in 2028 621 MW in 2033
ARP7K	MEEIA-2	None	None	n/n
ARP8K	RAP-	None	None	n/n
ARP9K	MEEIA-3	None	None	n/n
ARP10K	MEEIA-2	None	2021: 75 MW 2022-2023: 150 MW 2024: 225 MW 2025-2026: 300 MW 2027 and beyond: 375 MW	207 MW in 2036
ARP11K	RAP-	None	2021: 75 MW 2022-2023: 150 MW 2024: 225 MW 2025-2026: 300 MW 2027 and beyond: 375 MW	n/n
ARP12K	MEEIA-2	None	None	100 MW Wind in 2020

KCP&L/KCP&L-GMO Joint Plans

20-Year Net Present Value of Revenue Requirements by Scenario (\$ millions)

CO2 CREDIT PRICES - YES																				
HIGH GAS		MID GAS		LOW GAS		HIGH GAS		MID GAS		LOW GAS		HIGH GAS		MID GAS		LOW GAS				
Endpoint	PLAN	NPVRR	Endpoint	PLAN	NPVRR	Endpoint	PLAN	NPVRR	Endpoint	PLAN	NPVRR	Endpoint	PLAN	NPVRR	Endpoint	PLAN	NPVRR			
HIGH LOAD	ARP8	31,047	ARP8	31,119	ARP8	31,119	MID LOAD	ARP8	30,289	ARP8	30,427	ARP8	30,494	LOW LOAD	ARP8	29,595	ARP8	29,793	ARP8	29,919
	ARP9	31,159	ARP9	31,220	ARP9	31,208		ARP9	30,400	ARP9	30,528	ARP9	30,581		ARP9	29,706	ARP9	29,893	ARP9	30,006
	ARP7	31,171	ARP7	31,225	ARP7	31,208		ARP7	30,412	ARP7	30,533	ARP7	30,582		ARP7	29,718	ARP7	29,899	ARP7	30,007
	ARP1	31,220	ARP1	31,242	ARP1	31,209		ARP1	30,460	ARP1	30,550	ARP1	30,584		ARP1	29,766	ARP1	29,915	ARP1	30,009
	ARP5	31,392	ARP5	31,404	ARP5	31,359		ARP5	30,631	ARP5	30,711	ARP5	30,732		ARP5	29,936	ARP5	30,077	ARP5	30,158
	ARP3	31,425	ARP3	31,432	ARP3	31,381		ARP3	30,664	ARP3	30,738	ARP3	30,755		ARP3	29,969	ARP3	30,104	ARP3	30,180
	ARP11	32,023	ARP11	32,035	ARP11	31,978		ARP11	31,264	ARP11	31,344	ARP11	31,349		ARP11	30,570	ARP11	30,709	ARP11	30,775
	ARP10	32,240	ARP2	32,229	ARP2	32,138		ARP10	31,479	ARP2	31,535	ARP2	31,508		ARP10	30,785	ARP2	30,901	ARP2	30,933
	ARP2	32,265	ARP10	32,236	ARP10	32,160		ARP2	31,503	ARP10	31,544	ARP10	31,532		ARP2	30,808	ARP10	30,910	ARP10	30,956
	ARP6	32,455	ARP6	32,410	ARP6	32,305		ARP6	31,690	ARP6	31,714	ARP6	31,674		ARP6	30,995	ARP6	31,079	ARP6	31,099
ARP4	32,495	ARP4	32,445	ARP4	32,334	ARP4	31,731	ARP4	31,749	ARP4	31,703	ARP4	31,035	ARP4	31,113	ARP4	31,127			
CO2 CREDIT PRICES - NO																				
HIGH GAS		MID GAS		LOW GAS		HIGH GAS		MID GAS		LOW GAS		HIGH GAS		MID GAS		LOW GAS				
Endpoint	PLAN	NPVRR	Endpoint	PLAN	NPVRR	Endpoint	PLAN	NPVRR	Endpoint	PLAN	NPVRR	Endpoint	PLAN	NPVRR	Endpoint	PLAN	NPVRR			
HIGH LOAD	ARP8	29,768	ARP8	29,843	ARP8	29,895	MID LOAD	ARP8	29,065	ARP8	29,219	ARP8	29,345	LOW LOAD	ARP8	28,421	ARP8	28,645	ARP8	28,838
	ARP9	29,867	ARP9	29,929	ARP7	29,963		ARP9	29,165	ARP9	29,306	ARP7	29,413		ARP9	28,521	ARP9	28,732	ARP7	28,905
	ARP7	29,875	ARP7	29,931	ARP9	29,967		ARP7	29,172	ARP7	29,307	ARP9	29,417		ARP7	28,528	ARP7	28,733	ARP9	28,909
	ARP1	30,108	ARP1	30,117	ARP1	30,100		ARP1	29,403	ARP1	29,490	ARP1	29,548		ARP1	28,758	ARP1	28,916	ARP1	29,039
	ARP5	30,263	ARP5	30,262	ARP5	30,233		ARP5	29,558	ARP5	29,636	ARP5	29,679		ARP5	28,913	ARP5	29,061	ARP5	29,171
	ARP3	30,291	ARP3	30,285	ARP3	30,251		ARP3	29,586	ARP3	29,658	ARP3	29,697		ARP3	28,941	ARP3	29,083	ARP3	29,188
	ARP11	30,675	ARP11	30,684	ARP11	30,671		ARP11	29,972	ARP11	30,060	ARP11	30,120		ARP11	29,327	ARP11	29,485	ARP11	29,611
	ARP10	30,872	ARP10	30,865	ARP10	30,832		ARP10	30,168	ARP10	30,239	ARP10	30,280		ARP10	29,524	ARP10	29,665	ARP10	29,772
	ARP2	31,082	ARP2	31,028	ARP2	30,949		ARP2	30,373	ARP2	30,397	ARP2	30,390		ARP2	29,728	ARP2	29,822	ARP2	29,880
	ARP6	31,257	ARP6	31,194	ARP6	31,101		ARP6	30,546	ARP6	30,560	ARP6	30,540		ARP6	29,900	ARP6	29,985	ARP6	30,029
ARP4	31,293	ARP4	31,224	ARP4	31,126	ARP4	30,581	ARP4	30,589	ARP4	30,564	ARP4	29,935	ARP4	30,013	ARP4	30,053			

KCP&L Stand-Alone Plans

20-Year Net Present Value of Revenue Requirements by Scenario (\$ millions)

																	CO2 CREDIT PRICES - YES																
HIGH GAS						MID GAS						LOW GAS					HIGH GAS						MID GAS						LOW GAS				
Endpoint 1			Endpoint 3			Endpoint 5			Endpoint 7			Endpoint 9			Endpoint 11			Endpoint 13			Endpoint 15			Endpoint 17									
PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR					
ARP8K	20,867	ARP8K	21,094	ARP8K	21,241	ARP8K	20,415	ARP8K	20,678	ARP8K	20,864	ARP8K	20,415	ARP8K	20,678	ARP8K	20,864	ARP8K	20,034	ARP8K	20,325	ARP8K	20,542	ARP8K	20,034	ARP8K	20,325	ARP8K	20,542				
ARP9K	20,910	ARP1K	21,130	ARP1K	21,250	ARP9K	20,457	ARP1K	20,712	ARP1K	20,873	ARP9K	20,457	ARP1K	20,712	ARP1K	20,873	ARP9K	20,075	ARP1K	20,355	ARP1K	20,549	ARP9K	20,075	ARP1K	20,355	ARP1K	20,549				
ARP7K	20,920	ARP9K	21,131	ARP9K	21,271	ARP7K	20,467	ARP9K	20,714	ARP9K	20,894	ARP7K	20,467	ARP9K	20,714	ARP9K	20,894	ARP7K	20,085	ARP9K	20,361	ARP9K	20,571	ARP7K	20,085	ARP9K	20,361	ARP9K	20,571				
ARP1K	20,947	ARP7K	21,138	ARP7K	21,276	ARP1K	20,491	ARP7K	20,721	ARP7K	20,898	ARP1K	20,491	ARP7K	20,721	ARP7K	20,898	ARP1K	20,101	ARP7K	20,368	ARP7K	20,575	ARP1K	20,101	ARP7K	20,368	ARP7K	20,575				
ARP12K - PTC	20,953	ARP12K - PTC	21,181	ARP5K	21,310	ARP12K - PTC	20,502	ARP12K - PTC	20,765	ARP5K	20,934	ARP12K - PTC	20,502	ARP12K - PTC	20,765	ARP5K	20,934	ARP12K - PTC	20,122	ARP12K - PTC	20,413	ARP5K	20,609	ARP12K - PTC	20,122	ARP12K - PTC	20,413	ARP5K	20,609				
ARP12K - no PTC	20,997	ARP5K	21,197	ARP3K	21,314	ARP12K - no PTC	20,546	ARP5K	20,780	ARP3K	20,938	ARP12K - no PTC	20,546	ARP5K	20,780	ARP3K	20,938	ARP12K - no PTC	20,167	ARP5K	20,422	ARP3K	20,613	ARP12K - no PTC	20,167	ARP5K	20,422	ARP3K	20,613				
ARP5K	21,019	ARP3K	21,204	ARP12K - PTC	21,328	ARP5K	20,563	ARP3K	20,787	ARP12K - PTC	20,951	ARP5K	20,563	ARP3K	20,787	ARP12K - PTC	20,951	ARP5K	20,173	ARP3K	20,429	ARP12K - PTC	20,629	ARP5K	20,173	ARP3K	20,429	ARP12K - PTC	20,629				
ARP3K	21,029	ARP12K - no PTC	21,225	ARP12K - no PTC	21,372	ARP3K	20,573	ARP12K - no PTC	20,809	ARP12K - no PTC	20,995	ARP3K	20,573	ARP12K - no PTC	20,809	ARP12K - no PTC	20,995	ARP3K	20,182	ARP12K - no PTC	20,458	ARP12K - no PTC	20,673	ARP3K	20,182	ARP12K - no PTC	20,458	ARP12K - no PTC	20,673				
ARP11K	21,793	ARP11K	21,963	ARP11K	22,050	ARP11K	21,334	ARP11K	21,542	ARP11K	21,669	ARP11K	21,334	ARP11K	21,542	ARP11K	21,669	ARP11K	20,942	ARP11K	21,184	ARP11K	21,344	ARP11K	20,942	ARP11K	21,184	ARP11K	21,344				
ARP10K	21,860	ARP10K	22,020	ARP10K	22,097	ARP10K	21,400	ARP10K	21,600	ARP10K	21,717	ARP10K	21,400	ARP10K	21,600	ARP10K	21,717	ARP10K	21,009	ARP10K	21,241	ARP10K	21,391	ARP10K	21,009	ARP10K	21,241	ARP10K	21,391				
ARP2K	21,932	ARP2K	22,058	ARP2K	22,117	ARP2K	21,472	ARP2K	21,638	ARP2K	21,738	ARP2K	21,472	ARP2K	21,638	ARP2K	21,738	ARP2K	21,077	ARP2K	21,277	ARP2K	21,411	ARP2K	21,077	ARP2K	21,277	ARP2K	21,411				
ARP6K	22,027	ARP6K	22,148	ARP6K	22,200	ARP6K	21,567	ARP6K	21,728	ARP6K	21,822	ARP6K	21,567	ARP6K	21,728	ARP6K	21,822	ARP6K	21,172	ARP6K	21,367	ARP6K	21,495	ARP6K	21,172	ARP6K	21,367	ARP6K	21,495				
ARP4K	22,036	ARP4K	22,155	ARP4K	22,204	ARP4K	21,576	ARP4K	21,734	ARP4K	21,825	ARP4K	21,576	ARP4K	21,734	ARP4K	21,825	ARP4K	21,181	ARP4K	21,373	ARP4K	21,498	ARP4K	21,181	ARP4K	21,373	ARP4K	21,498				

																	CO2 CREDIT PRICES - NO																
HIGH GAS						MID GAS						LOW GAS					HIGH GAS						MID GAS						LOW GAS				
Endpoint 2			Endpoint 4			Endpoint 6			Endpoint 8			Endpoint 10			Endpoint 12			Endpoint 14			Endpoint 16			Endpoint 18									
PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR		PLAN	NPVRR					
ARP8K	19,928	ARP8K	20,171	ARP8K	20,374	ARP8K	19,526	ARP8K	19,810	ARP8K	20,052	ARP8K	19,526	ARP8K	19,810	ARP8K	20,052	ARP8K	19,191	ARP8K	19,506	ARP8K	19,778	ARP8K	19,191	ARP8K	19,506	ARP8K	19,778				
ARP9K	19,965	ARP9K	20,200	ARP9K	20,395	ARP9K	19,559	ARP9K	19,836	ARP9K	20,072	ARP9K	19,559	ARP9K	19,836	ARP9K	20,072	ARP9K	19,220	ARP9K	19,529	ARP9K	19,795	ARP9K	19,220	ARP9K	19,529	ARP9K	19,795				
ARP7K	19,972	ARP7K	20,204	ARP7K	20,397	ARP7K	19,566	ARP7K	19,840	ARP7K	20,073	ARP7K	19,566	ARP7K	19,840	ARP7K	20,073	ARP7K	19,227	ARP7K	19,532	ARP7K	19,796	ARP7K	19,227	ARP7K	19,532	ARP7K	19,796				
ARP12K - PTC	20,018	ARP12K - PTC	20,260	ARP12K - PTC	20,462	ARP12K - PTC	19,616	ARP12K - PTC	19,899	ARP12K - PTC	20,140	ARP12K - PTC	19,616	ARP12K - PTC	19,899	ARP12K - PTC	20,140	ARP12K - PTC	19,281	ARP12K - PTC	19,595	ARP12K - PTC	19,866	ARP12K - PTC	19,281	ARP12K - PTC	19,595	ARP12K - PTC	19,866				
ARP12K - no PTC	20,062	ARP12K - no PTC	20,304	ARP1K	20,478	ARP12K - no PTC	19,660	ARP12K - no PTC	19,943	ARP1K	20,150	ARP12K - no PTC	19,660	ARP12K - no PTC	19,943	ARP1K	20,150	ARP12K - no PTC	19,326	ARP12K - no PTC	19,639	ARP1K	19,867	ARP12K - no PTC	19,326	ARP12K - no PTC	19,639	ARP1K	19,867				
ARP1K	20,149	ARP1K	20,333	ARP12K - no PTC	20,506	ARP1K	19,731	ARP1K	19,961	ARP12K - no PTC	20,185	ARP1K	19,731	ARP1K	19,961	ARP12K - no PTC	20,185	ARP1K	19,375	ARP1K	19,643	ARP12K - no PTC	19,911	ARP1K	19,375	ARP1K	19,643	ARP12K - no PTC	19,911				
ARP5K	20,213	ARP5K	20,392	ARP5K	20,530	ARP5K	19,795	ARP5K	20,020	ARP5K	20,201	ARP5K	19,795	ARP5K	20,020	ARP5K	20,201	ARP5K	19,438	ARP5K	19,700	ARP5K	19,917	ARP5K	19,438	ARP5K	19,700	ARP5K	19,917				
ARP3K	20,221	ARP3K	20,397	ARP3K	20,532	ARP3K	19,802	ARP3K	20,024	ARP3K	20,203	ARP3K	19,802	ARP3K	20,024	ARP3K	20,203	ARP3K	19,444	ARP3K	19,704	ARP3K	19,918	ARP3K	19,444	ARP3K	19,704	ARP3K	19,918				
ARP11K	20,778	ARP11K	20,956	ARP11K	21,095	ARP11K	20,358	ARP11K	20,581	ARP11K	20,764	ARP11K	20,358	ARP11K	20,581	ARP11K	20,764	ARP11K	20,000	ARP11K	20,259	ARP11K	20,477	ARP11K	20,000	ARP11K	20,259	ARP11K	20,477				
ARP10K	20,836	ARP10K	21,003	ARP10K	21,132	ARP10K	20,414	ARP10K	20,627	ARP10K	20,800	ARP10K	20,414	ARP10K	20,627	ARP10K	20,800	ARP10K	20,055	ARP10K	20,305	ARP10K	20,513	ARP10K	20,055	ARP10K	20,305	ARP10K	20,513				
ARP2K	21,060	ARP2K	21,182	ARP2K	21,262	ARP2K	20,634	ARP2K	20,803	ARP2K	20,928	ARP2K	20,634	ARP2K	20,803	ARP2K	20,928	ARP2K	20,268	ARP2K	20,476	ARP2K	20,638	ARP2K	20,268	ARP2K	20,476	ARP2K	20,638				
ARP6K	21,146	ARP6K	21,263	ARP6K	21,337	ARP6K	20,719	ARP6K	20,883	ARP6K	21,002	ARP6K	20,719	ARP6K	20,883	ARP6K	21,002	ARP6K	20,352	ARP6K	20,555	ARP6K	20,711	ARP6K	20,352	ARP6K	20,555	ARP6K	20,711				
ARP4K	21,153	ARP4K	21,267	ARP4K	21,338	ARP4K	20,726	ARP4K	20,887	ARP4K	21,003	ARP4K	20,726	ARP4K	20,887	ARP4K	21,003	ARP4K	20,359	ARP4K	20,559	ARP4K	20,712	ARP4K	20,359	ARP4K	20,559	ARP4K	20,712				