

Exhibit No.:
Issue: *Bad Debt Expense*
Witness: *Antonija Nieto*
Sponsoring Party: *MoPSC Staff*
Type of Exhibit: *Rebuttal Testimony*
Case No.: *ER-2018-0145 and*
ER-2018-0146
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MISSOURI PUBLIC SERVICE COMMISSION

COMMISSION STAFF DIVISION

AUDITING DEPARTMENT

REBUTTAL TESTIMONY

OF

ANTONIJA NIETO

**KANSAS CITY POWER & LIGHT COMPANY
CASE NO. ER-2018-0145**

AND

**KCP&L GREATER MISSOURI OPERATIONS COMPANY
CASE NO. ER-2018-0146**

Jefferson City, Missouri
July 2018

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EXECUTIVE SUMMARY 1

BAD DEBT EXPENSE 2

1 A. I am responding to KCPL's and GMO's request to recover bad debt expense in
2 excess of the annualized level of bad debt expense calculated in these cases. KCPL's and
3 GMO's request to include an adjustment for bad debt expense associated with a revenue
4 requirement change is commonly referred to as bad debt "factor up" or "gross up" Staff
5 recommends that this theoretical expense not be included in KCPL's and GMO's cost of
6 service. No direct correlation exists between a change in customer rates and bad debt expense
7 to justify adjusting bad debt expense based on the amount of the authorized rate increase or
8 decrease that will result from this rate case.

9 **BAD DEBT EXPENSE**

10 Q. Please summarize Staff's position with regard to bad debt expense.

11 A. Staff is opposed to KCPL's and GMO's request to recover bad debt expense in
12 excess of the annualized level of bad debt expense calculated in these cases. KCPL and GMO
13 have included an additional \$90,207 and \$78,454, respectively, of Missouri jurisdictional bad
14 debt in their direct filed revenue requirement requests. KCPL and GMO have also included a
15 factor up for late payment fee revenue in the amount of \$36,170 and \$18,749, respectively,
16 based on their direct filed revenue requirement requests.

17 The bad debt factor up is separate from the normalized bad debt expense adjustment
18 that is based on the ratio of bad debt to rate revenue updated through December 31, 2017.

19 KCPL's and GMO's rationale for making this request is based on the assumption that
20 any increase in customer rates granted by the Commission will cause bad debt expense to also
21 directly increase proportionally. However, KCPL and GMO have not demonstrated a direct
22 correlation exists between the level of rate revenue and the percentage of bad debts that would

1 justify the reflection of a further adjustment for bad debt expense in rates. KCPL's and
2 GMO's assumption is speculative and is not based upon known and measurable changes.

3 Staff has based its rate recommendation for this item on actual historical levels of bad
4 debt. Based on its review of historical levels, Staff concludes that there has been no direct
5 correlation between bad debts and the level of rate increases, or even the level of revenue
6 growth of KCPL and GMO. Staff's analysis of the actual net write-offs to related revenues as
7 depicted in the attached charts and graphs indicate that bad debt expense sometimes moves in
8 the opposite direction or not in proportion to rates/revenues when levels of rates and revenues
9 change.

10 Staff recommends that the Commission deny KCPL's and GMO's request to adopt
11 KCPL's and GMO's proposed bad debt "factor up" for bad debts and also not order a "factor
12 up" of late payment fees. However, in the event that the Commission does grant KCPL's and
13 GMO's request to "factor up" bad debt expense proportionate with a change in revenue
14 requirement, Staff recommends it also "factor-up" additional forfeited discounts (late payment
15 fees) that would be assumed to change as a result of the rate change. If the Commission
16 concludes that it is reasonable and appropriate to "factor up" bad debt expense for purposes of
17 setting rates, on the theory that KCPL and GMO will experience a higher level of bad debts as
18 a result of a rate increase, then it is reasonable to conclude that KCPL and GMO will also
19 experience a higher level of late payment revenue resulting from those higher rates. To
20 summarize, Staff recommends the Commission deny both factor ups, but if bad debt expense
21 is ordered to be factored up, then late payment fees should also be factored up.

1 Q. How did Staff develop its normalized bad debt expense recommendation?

2 A. Bad debt expense was normalized using the historical ratio between bad debt
3 and retail revenues through December 2017. Staff applied this ratio to the weather
4 normalized annualized rate revenues amount. Staff, KCPL, and GMO have used this method
5 for several cases to normalize bad debt expense. There is no apparent disagreement between
6 Staff, KCPL, and GMO concerning this portion of bad debt expense.

7 Q. In Staff's opinion, is it reasonable to assume that there will be bad debts
8 associated with a revenue requirement change granted in this rate case?

9 A. Upon examining actual historical bad debts in relationship to revenues, there is
10 not any apparent causal relationship between bad debts and changes in revenues; KCPL's
11 and GMO's assumption does not hold true. Thus, any change in a company's revenues
12 should not be assumed to automatically cause a proportional change to bad debt expense, on a
13 dollar-for-dollar basis. Staff's analysis demonstrates no evidence of this direct correlation for
14 KCPL and GMO currently or in the past, nor have KCPL and GMO produced any evidence of
15 such a correlation in their testimony or workpapers in these cases. In fact, at various times as
16 revenues increased, bad debts have actually declined. In other instances, when revenues
17 decreased, bad debts increased. The conclusion is there is no direct relationship between bad
18 debts and revenue changes.

19 The usual justification for use of the bad debt "factor up" is the incorrect assumption
20 that it is necessary to match dollar-for-dollar the level of bad debt expense established in a
21 rate case with the amount of additional revenue requirement increase approved by the
22 Commission. In other words, the use of bad debt "factor up" implies that it is a virtual
23 certainty that, with each rate change, bad debts will also change proportionally. Should the

1 factor up be granted, this additional amount of bad debt expense would be calculated and
2 added to the annualized and normalized level of bad debt expense found reasonable for
3 inclusion in the utility's revenue requirement. The amount of any ordered bad debt "factor
4 up" will be derived by applying the bad debt expense ratio to the expected revenue
5 requirement increase to be granted by the Commission. Staff's analysis concludes KCPL's
6 and GMO's proposed bad debt factor up request should not be adopted in this case, nor should
7 additional late payment fees be included based on the rate change ordered in this case.
8 Therefore, Staff recommends that the Commission not adopt KCPL's and GMO's request.

9 Q. Does KCPL's and GMO's requested bad debt "factor up" work in the same
10 way as an income tax "factor up"?

11 A. Yes. KCPL's and GMO's proposed bad debt "factor up" methodology is in
12 essence the same as the income tax "factor up." The income tax factor assumes that for every
13 change in earnings resulting from a rate case there will be a direct and absolute proportional
14 change in income taxes. This is a well-established and accepted relationship in ratemaking,
15 and in this case KCPL, GMO, and Staff have applied an income tax "factor up" to the
16 additional revenue requirement calculation to determine the proper level of rate
17 increase/decrease recommended in this case. If the Commission authorizes a rate change in
18 this proceeding, then a corresponding income tax amount will have to be added to or
19 subtracted from the calculated revenue requirement amount of KCPL and GMO (for a rate
20 increase) or KCPL/GMO customers (for a rate decrease) may not realize the full amount of
21 the authorized change revenues.

1 Q. What analysis has Staff performed to support the position that no direct
2 relationship exists for bad debts relating to changes in revenue requirement for KCPL and
3 GMO?

4 A. Attached to this rebuttal testimony are several schedules.

5 For KCPL:

- 6 • Confidential Schedule AN-r1 is a historical monthly analysis of
7 KCPL's bad debts (net write-offs) and retail revenue levels.
8 Listed on the schedule are the monthly revenues, along with
9 the corresponding bad debt. The monthly percentage change in
10 both is shown, as well as the number of instances where bad
11 debts and revenues changed in opposite directions from month
12 to month.
- 13 • Confidential Schedule AN-r2 is a graphical analysis of monthly
14 retail revenues and bad debt for time period January 2005
15 through June 2017.
- 16 • Schedule AN-r3 is a graphical analysis of the monthly percent
17 change in bad debts and retail revenues for time period January
18 2005 through June 2017.
- 19 • Confidential Schedule AN-r4 is the quarterly rolling
20 percentage of bad debt compared to retail revenue from
21 December 2006 through June 2017.
- 22 • Schedule AN-r5 is a graph of the quarterly rolling percentage
23 of bad debt compared to retail revenue from December 2006
24 through June 2017.
- 25 • Schedule AN-r6 is a graph of the quarterly rolling percentage
26 of bad debt compared to retail revenue from December 2006
27 through June 2017.
- 28 • Schedule AN-r7 is a graph of the quarterly rolling percentage
29 of bad debt compared to retail revenue from December 2006
30 through June 2017.

31 For GMO:

- 32 • Confidential Schedule AN-r6 is a historical monthly analysis
33 GMO's bad debts (net write-offs) and retail revenue levels.
34 Listed on the schedule are the monthly revenues, along with
35 the corresponding bad debt. The monthly percentage change in
36 both is shown, as well as the number of instances where bad
37 debts and revenues changed in opposite directions from month
38 to month.
- 39 • Confidential Schedule AN-r7 is a graphical analysis of monthly
40 retail revenues and bad debt for time period January 2001
41 through June 2017.

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- 1 • Schedule AN-r8 is a graphical analysis of the monthly percent
2 change in bad debts and retail revenues for time period January
3 2001 through June 2017.
- 4
- 5 • Confidential Schedule AN-r9 is the quarterly rolling
6 percentage of bad debt compared to retail revenue for the same
7 time period for GMO.
- 8
- 9 • Schedule AN-r10 is a graph of the quarterly rolling percentage
10 of bad debt compared to retail revenue from December 2001
11 through June 2017.

12 Q. What do the schedules you have provided demonstrate?

13 A. The information shown in the graphical analysis clearly demonstrates there is
14 no direct relationship between bad debts and changes in revenues that would have to exist
15 to justify a bad debt “factor up” calculation. This conclusion holds true in examining the
16 month-to-month change in bad debt and revenue, and also the quarterly rolling relationship
17 between bad debt and revenue as shown in the attached schedules.

18 Q. What are some historical examples specific to KCPL and GMO when bad
19 debts did not increase proportionately to increased or decreased revenues?

20 A. Staff reviewed the changes or variations that occurred between electric retail
21 revenues and actual bad debt write-offs for the period from January 2005 through June 2017¹
22 for KCPL, and January 2001 through June 2017 for GMO (see attached schedules).

23 While electric revenues increased (or decreased), actual bad debt write-offs tend to
24 decrease (or increase) by different amounts and in different directions. In fact, during
25 KCPL’s and GMO’s summer peaking months, there was at least one month each year where
26 revenues and bad debts had an inverse relationship beginning January 2007 through June 30,
27 2017. Even in situations where revenues and bad debts tend to move in the same direction,

¹ The approximate time to “write-off” bad debts is six months. Therefore, bad debts in a given month relate to revenue levels booked six months prior. Staff’s December 31, 2017 cutoff analysis updates December bad debts that relate to June 2017 revenues.

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1 Staff observed that they were either increased or decreased by different and disproportionate
2 amounts. The following tables identify several examples during the peak summer months
3 when the increase or decrease in revenues is not consistent with the increase or decrease in
4 bad debts:

5 KCPL:

| Month/Year | Revenue Percentage Change | Bad Debt Percentage Change |
|----------------|---------------------------|----------------------------|
| July 2005 | 12.55% | -15.19% |
| August 2006 | -3.15% | 2.65% |
| June 2007 | 21.84% | -6.64% |
| July 2007 | 16.73% | -5.94% |
| August 2007 | 12.46% | -32.38% |
| September 2007 | -29.50% | 54.24% |
| July 2008 | 16.06% | -27.77% |
| September 2008 | -28.02% | 19.72% |
| July 2009 | 9.02% | -43.44% |
| September 2009 | -14.75% | 100.78% |
| June 2010 | 38.88% | -11.71% |
| August 2010 | 0.13% | -63.04% |
| September 2010 | -31.56% | 97.45% |
| July 2011 | 21.98% | -4.43% |
| July 2013 | 15.06% | -17.68% |
| July 2014 | 8.46% | -36.19% |
| July 2015 | 14.33% | -39.76% |
| August 2016 | 0.43% | -60.65% |
| June 2017 | 36.36% | -39.70% |

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GMO:

| Month/Year | Revenue Percentage Change | Bad Debt Percentage Change |
|----------------|------------------------------|-------------------------------|
| July 2010 | 8.92% | -7.16% |
| August 2010 | 2.61% | -54.56% |
| June 2011 | 43.70% | -11.57% |
| July 2011 | 31.95% | -17.72% |
| June 2012 | 36.38% | -26.12% |
| September 2013 | -23.52% | 2.11% |
| July 2014 | 4.54% | -38.74% |
| August 2014 | -28.87% | 138.91% |
| June 2015 | -4.05% | 30.74% |
| July 2015 | 18.52% | -17.95% |
| July 2016 | 3.91% | -25.55% |
| August 2016 | 3.29% | -7.04% |
| September 2016 | -30.01% | 51.05% |

2

Q. What is the significance of the summer peaking months discussed above?

3

A. The summer peaking months of June through September represent the months

4

KCPL's and GMO's revenues are their highest during a given year. For KCPL's and GMO's

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argument to hold true, bad debts would increase during its summer peaking months when

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revenues are increasing. Based on the tables above, KCPL's and GMO's argument simply

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does not hold true.

8

Q. On an annual basis, what is the comparison of Missouri bad debts to revenues?

9

A. For KCPL, the ratio of bad debts to revenues has recently decreased to a level

10

around the 2006 levels, which was before KCPL's first rate increase in Missouri since the

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mid 1980s. Schedule AN-r5 shows that bad debts, as a percentage of revenues, actually

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decreased after the 2006, 2007, and 2010 rate increases. The percentage of bad debts to

13

revenues in December 2006 was ** _____. ** As can be seen from the data, this ratio

14

has fluctuated both up and down, and as of June 2017, the ratio is ** _____. **

1 For GMO, Confidential Schedule AN-r10 graphically depicts GMO's bad debts as a
2 percentage of revenues on a 12 month rolling quarterly basis. Case No. ER-2001-672, which
3 was consolidated with a complaint case, resulted in a rate *decrease*, and, contrary to GMO's
4 assumptions, bad debts *increased* after this rate decrease. Confidential Schedule AN-r10
5 shows that bad debts, as a percentage of revenues, actually decreased after the 2010 and 2012
6 rate increases. This data directly contradicts GMO's assumptions and conclusions underlying
7 its proposed bad debt factor-up.

8 Q. You stated earlier that the bad debt factor up is not "known and measurable"
9 and is an out-of-period adjustment that goes beyond the true-up period in this case.
10 Please explain.

11 A. The anticipated effective date of rates in this case is December 29, 2018. The
12 annual revenue requirement authorized by the Commission, if any, will be collected in the
13 following 12 months. Bad debt expense lags behind revenues by six months, so a full twelve
14 months of bad debt expense associated with a full twelve months of revenues resulting from
15 these rate cases will not be incurred until June 2020, 18 months beyond the operation of law
16 date and 24 months beyond the true-up date in this case. In other words, KCPL's and GMO's
17 adjustment for bad debt associated with the revenue requirement attempts to include a cost in
18 rates that may or may not be realized until 18 months beyond the change in rates, which is
19 certainly not known and measurable.

20 Q. What are "forfeited discounts"?

21 A. Forfeited discounts are also known as "late payment fees" and are fees that
22 KCPL and GMO charge their customers for making late payments on customer bills
23 whenever they become due. The charges are assessed on the remainder of the unpaid bill.

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1 Q. How are “forfeited discounts” or late payment fees booked by KCPL and
2 GMO?

3 A. Late fees payments are considered additional revenue and, as such, are booked
4 as revenue by KCPL and GMO.

5 Q. Did KCPL and GMO propose to “factor up” late payment fees consistent with
6 its requested bad debt “factor up” for revenue requirements increase?

7 A. Yes. KCPL’s and GMO’s Adjustment R-21b adds additional late payment
8 revenue based on the requested rate increase.

9 Q. Has Staff performed any analysis that would support there is a relationship
10 between changes in revenues and late payment fees?

11 A. Yes. Attached to this rebuttal testimony, as Schedules AN-r11 through
12 AN-r14 are historical monthly analyses of KCPL’s and GMO’s late payment fees and retail
13 revenue levels. Contrary to Staff’s bad debt analysis, a relationship between late payment
14 fees and changes in revenues does appear to exist. Although the relationship between late
15 payment fees and changes in revenues is not a perfect correlation, Staff’s analysis indicates
16 the relationship is much closer to a direct correlation than the relationship of bad debt expense
17 to changes in revenues.

18 Q. If the Commission includes a bad debt factor up, would it be consistent to also
19 “factor up” forfeited discounts or late payment fees?

20 A. Yes. Staff recommends that if the Commission decides to grant KCPL’s and
21 GMO’s request to adjust bad debt expense proportionate to any increase in revenue
22 requirement, then it should also “factor up” late payment fees for the same reason. If the
23 Commission concludes that KCPL and GMO will experience a proportionately different level

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1 of bad debts as a result of a rate change then it would follow that KCPL and GMO will
2 experience a different level of late payment revenue as well.

3 Q. Does this conclude your rebuttal testimony?

4 A. Yes, it does.

SCHEDULE AN-r1

HAS BEEN DEEMED

CONFIDENTIAL

IN ITS ENTIRETY

SCHEDULE AN-r2

HAS BEEN DEEMED

CONFIDENTIAL

IN ITS ENTIRETY

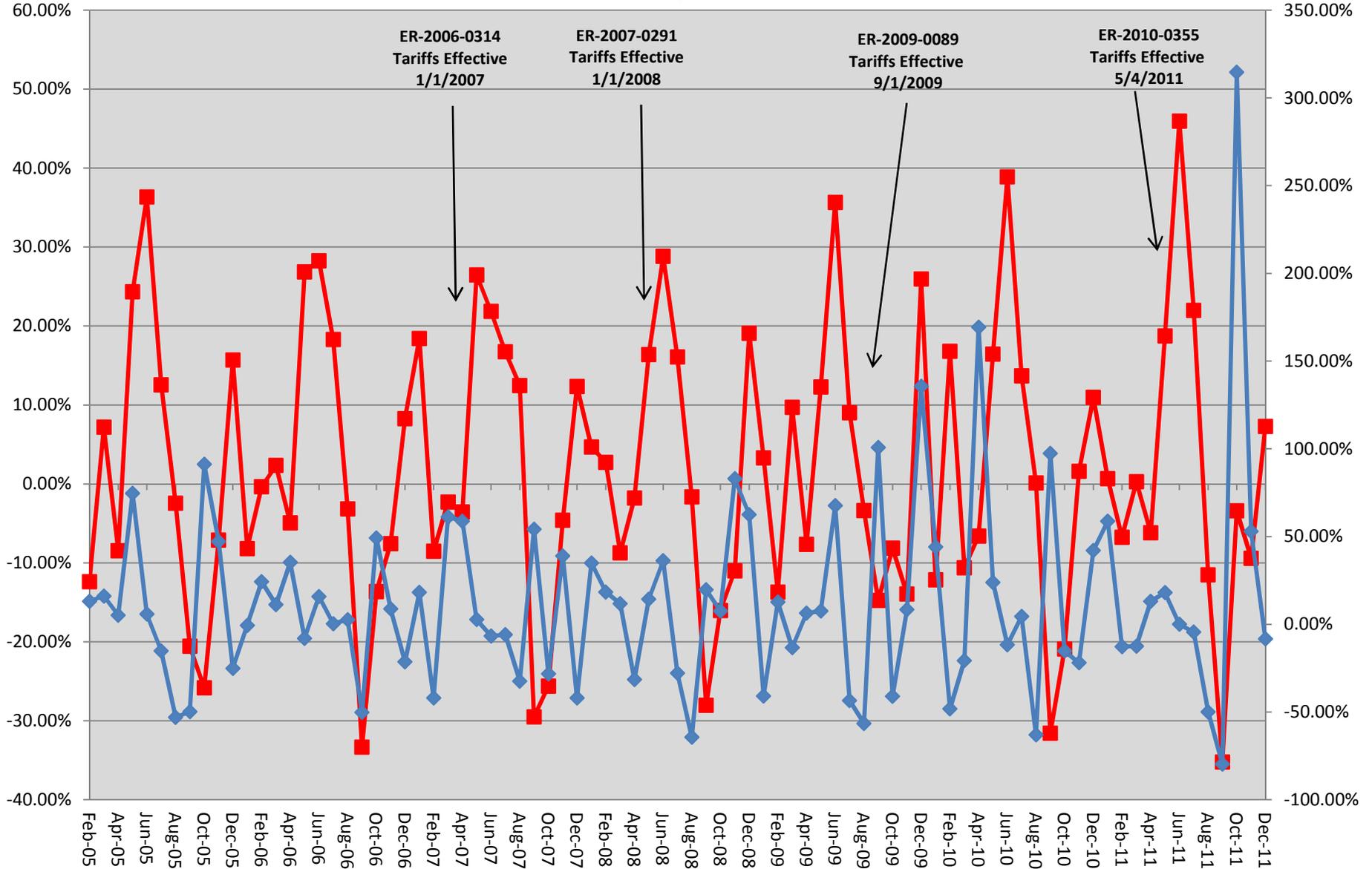
KCPL - Bad Debt Analysis - Percentage Change

January 2005 Through December 2011

Retail Revenues Compared to Net Write Offs

MO Retail Revenues %

MO Net Write-Offs %



■ Revenue % ◆ Bad Debt %

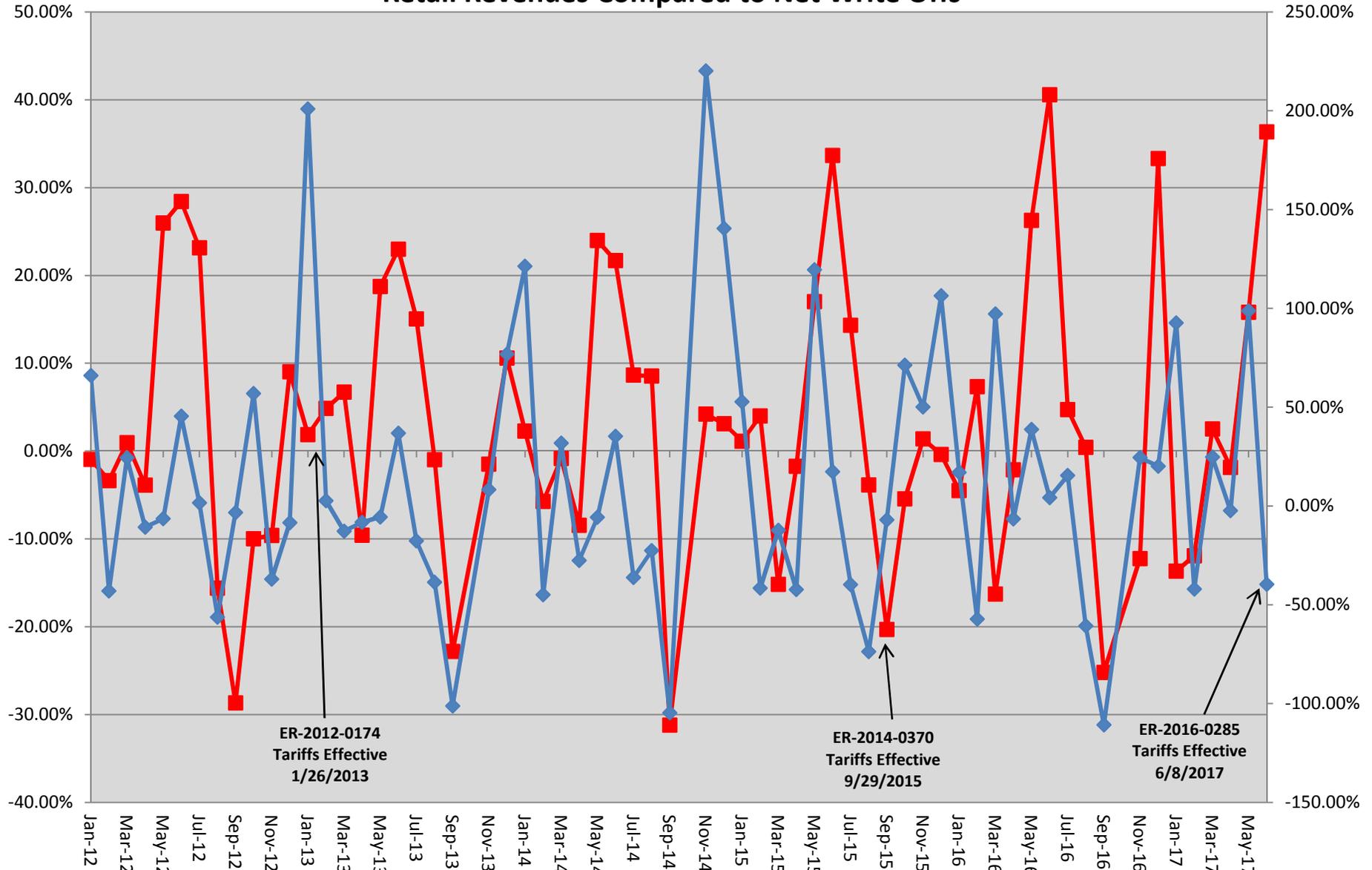
KCPL - Bad Debt Analysis - Percentage Change

January 2012 Through June 2017

Retail Revenues Compared to Net Write Offs

MO Retail Revenues %

MO Net Write-Offs %



*** Graph Does not depict October 2013, 2014, 2016

■ Revenues % ◆ Bad Debt %

SCHEDULE AN-r4

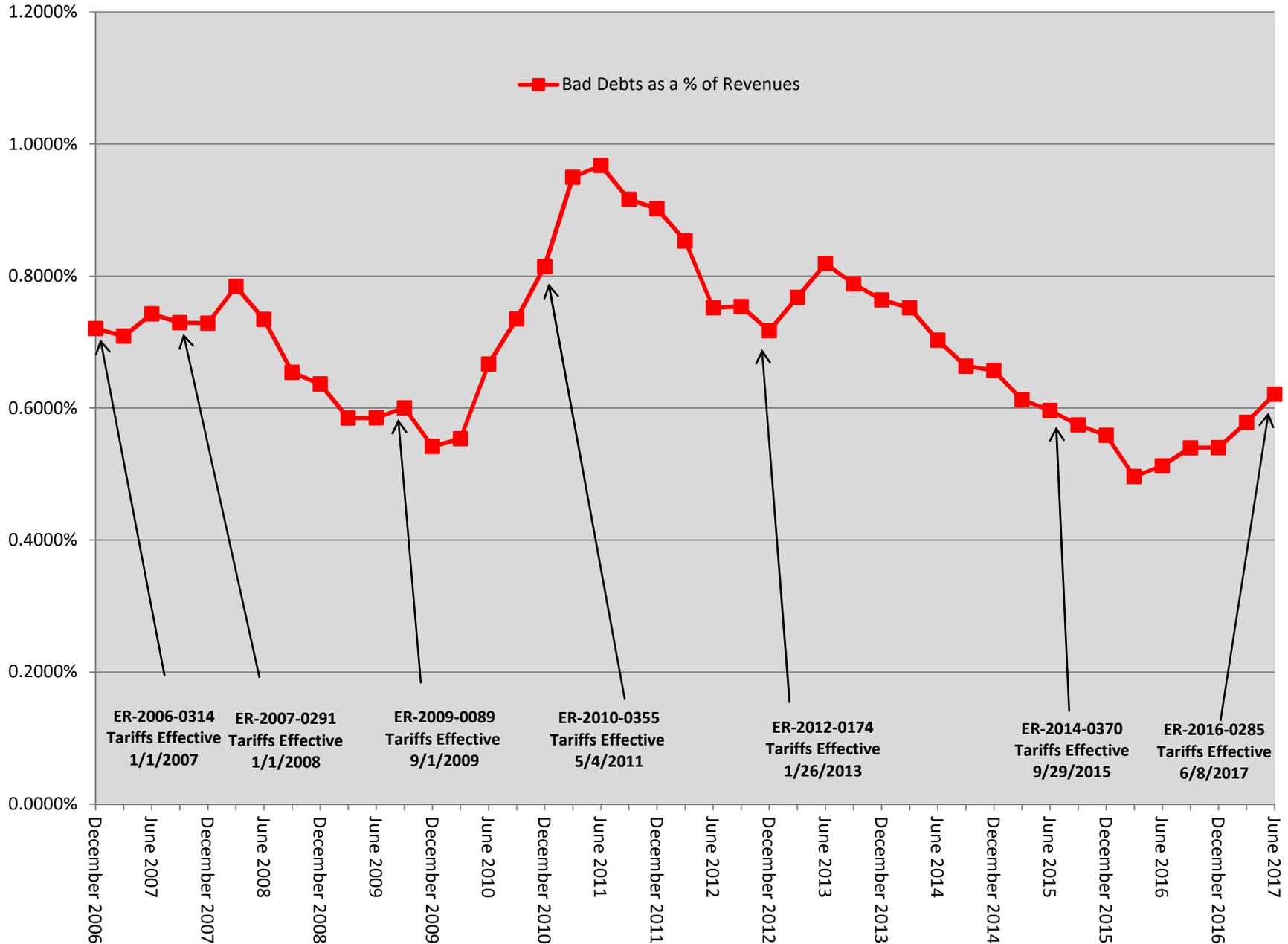
HAS BEEN DEEMED

CONFIDENTIAL

IN ITS ENTIRETY

KCPL - Bad Debt Analysis - 12 Month Bad Debts, Quarterly Rolling % December 2006 through June 2017

MO Retail Revenues %



SCHEDULE AN-r6

HAS BEEN DEEMED

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IN ITS ENTIRETY

SCHEDULE AN-r7

HAS BEEN DEEMED

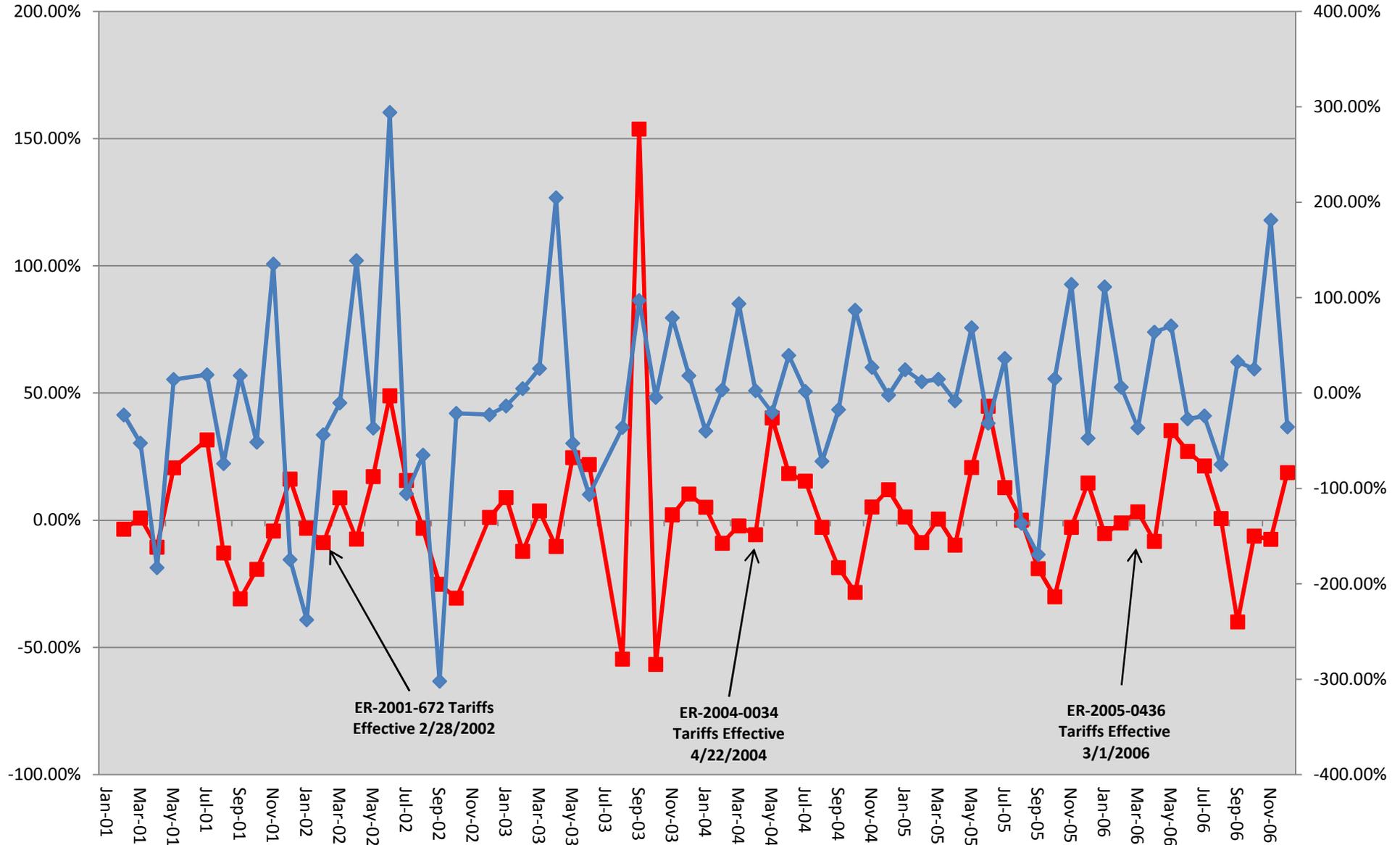
CONFIDENTIAL

IN ITS ENTIRETY

KCPL GMO - Bad Debt Analysis - Percentage Change
 January 2001 through December 2006
 Retail Revenues Compared to Net Write Offs

MO Retail Revenues \$

MO Net Write-Offs \$



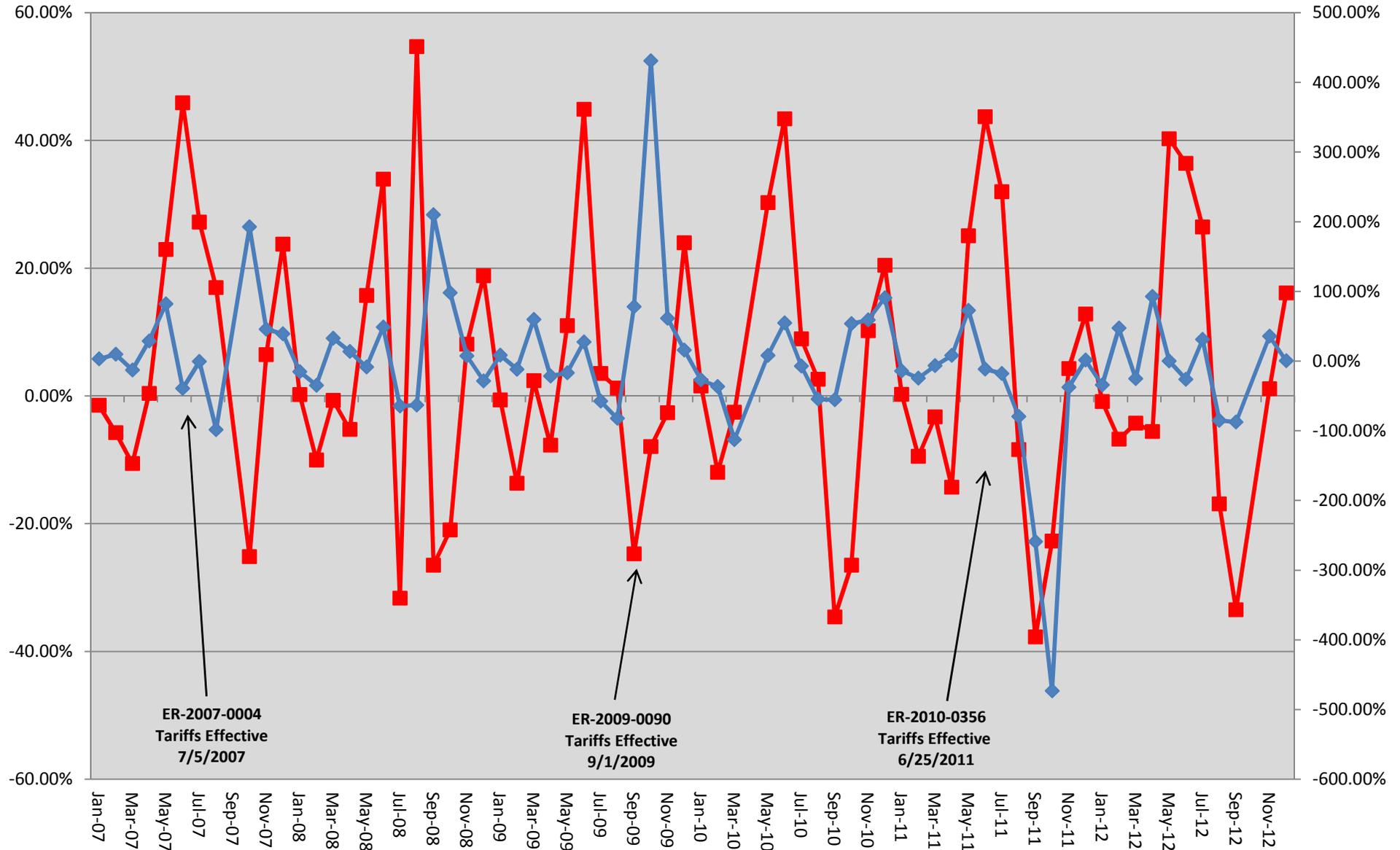
*** Graph does not depict June 2001, Nov. 2002, July 2003

■ Retail Revenues (\$) ◆ Net Write-Offs (\$)

KCPL GMO - Bad Debt Analysis - Percentage Change
 January 2007 through December 2012
 Retail Revenues Compared to Net Write Offs

MO Retail Revenues \$

MO Net Write-Offs \$



ER-2007-0004
 Tariffs Effective
 7/5/2007

ER-2009-0090
 Tariffs Effective
 9/1/2009

ER-2010-0356
 Tariffs Effective
 6/25/2011

*** Graph does not depict Sep. 2007, Apr. 2010, Oct. 2012

■ Retail Revenues (\$) ◆ Net Write-Offs (\$)

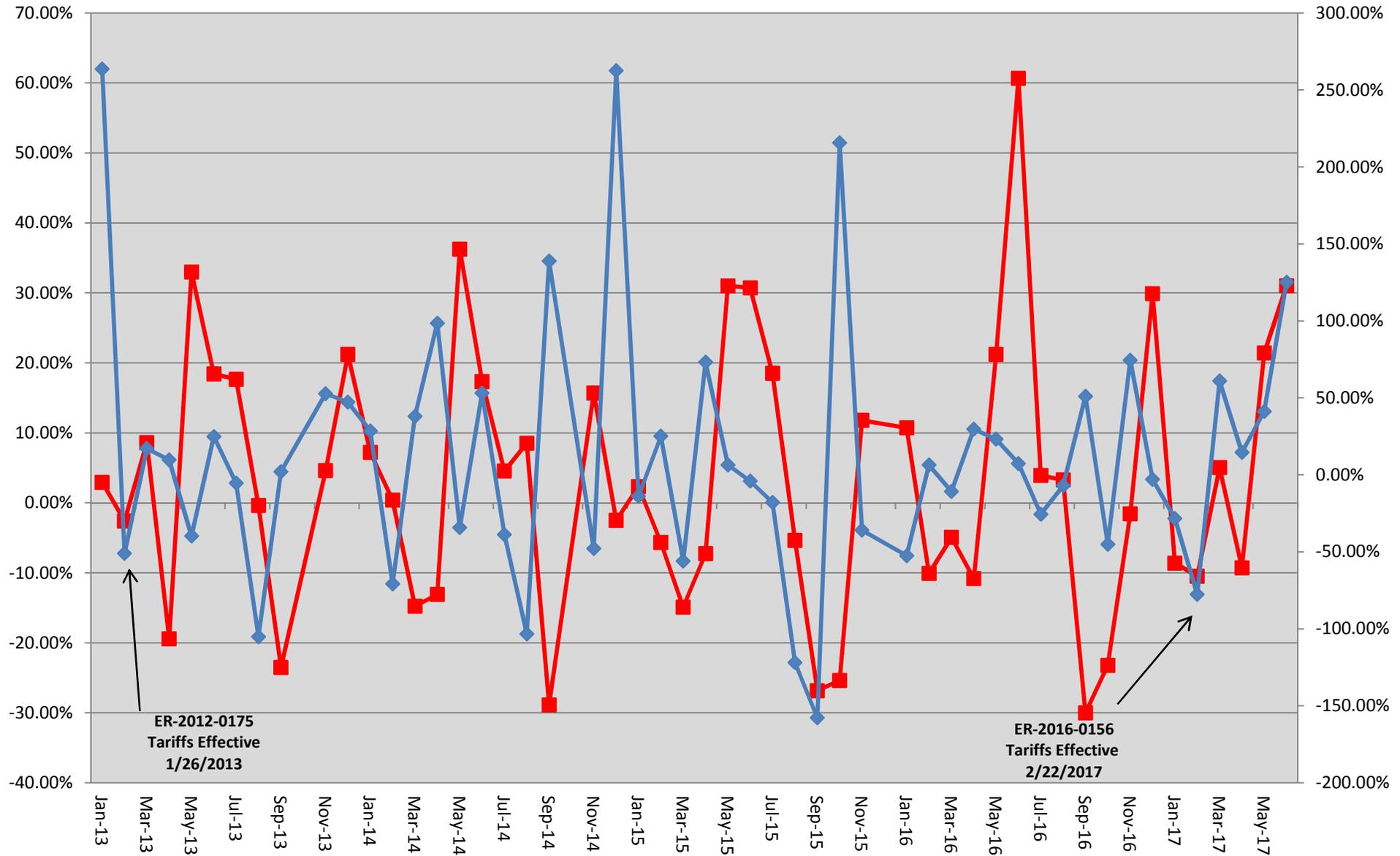
KCPL GMO - Bad Debt Analysis - Percentage Change

January 2013 through June 2017

Retail Revenues Compared to Net Write Offs

MO Retail Revenues \$

MO Net Write-Offs \$



ER-2012-0175
Tariffs Effective
1/26/2013

ER-2016-0156
Tariffs Effective
2/22/2017

*** Graph does not depict Oct. 2013, Oct. 2014, Dec. 2015

■ Retail Revenues (\$) ◆ Net Write-Offs (\$)

SCHEDULE AN-r9

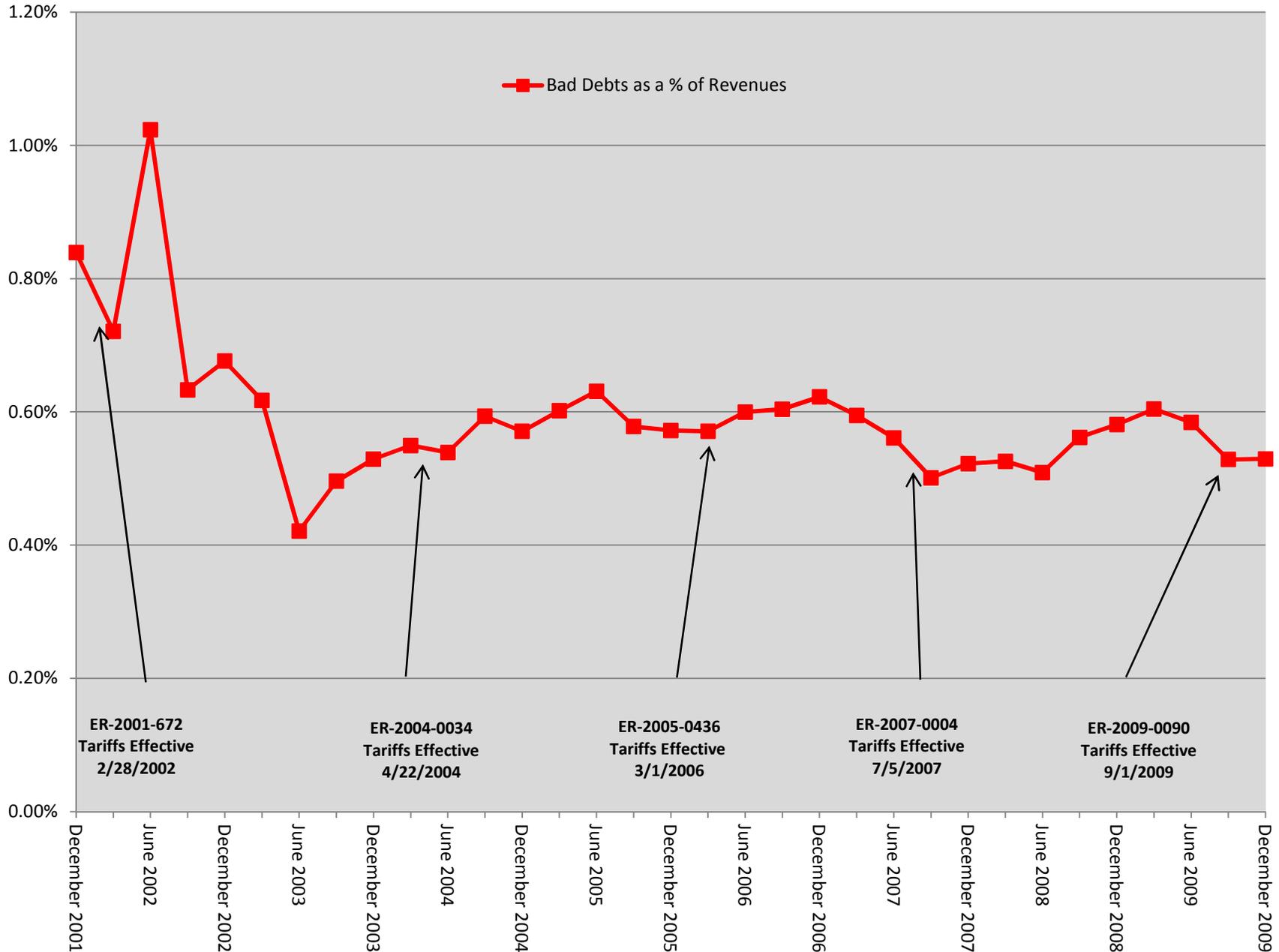
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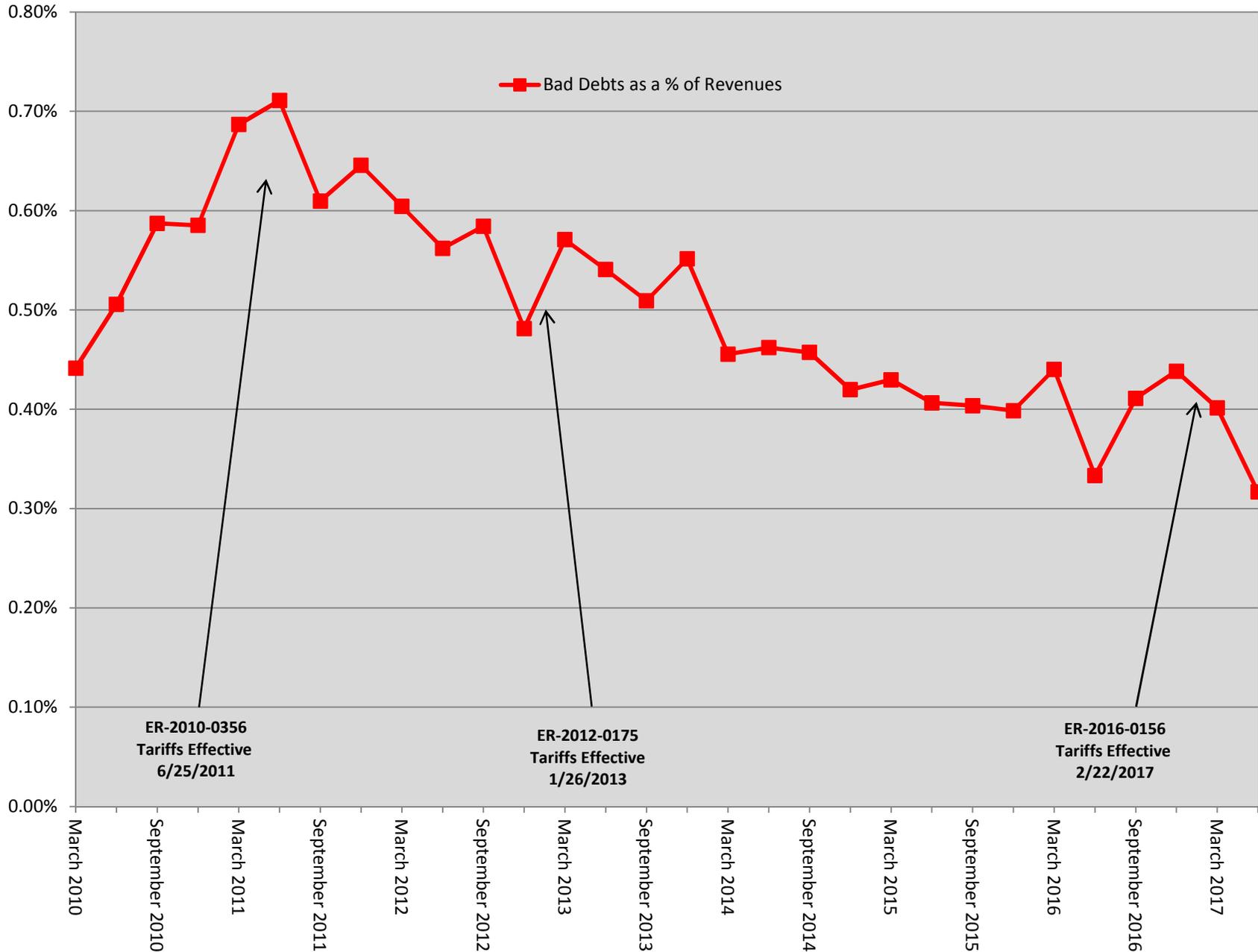
**KCPL GMO - Bad Debt Analysis - 12 Month Bad Debts, Quarterly Rolling %
December 2001 through December 2009**

MO Retail Revenues %



**KCPL GMO - Bad Debt Analysis - 12 Month Bad Debts, Quarterly Rolling %
March 2010 through June 2017**

MO Retail Revenues %



Kansas City Power & Light Company
Case No. ER-2018-0145
Missouri Forfeited Discounts (Late Payment Fees)
Case No. ER-2018-0145

| Revenue Month | MO Total Retail Revenue | MO Forfeited Discounts | Change in Revenues | Change in Forfeited Discounts | No. of Occurrences** |
|---------------|-------------------------|------------------------|--------------------|-------------------------------|----------------------|
| Jan-05 | \$ 38,837,702 | \$ 99,464 | | | |
| Feb-05 | 34,205,072 | 99,068 | -11.93% | -0.40% | |
| Mar-05 | 36,452,702 | 91,310 | 6.57% | -7.83% | 1 |
| Apr-05 | 33,467,075 | 91,610 | -8.19% | 0.33% | 2 |
| May-05 | 41,124,531 | 99,293 | 22.88% | 8.39% | |
| Jun-05 | 56,078,592 | 90,424 | 36.36% | -8.93% | 3 |
| Jul-05 | 63,423,544 | 120,039 | 13.10% | 32.75% | |
| Aug-05 | 62,123,258 | 154,009 | -2.05% | 28.30% | 4 |
| Sep-05 | 49,914,183 | 141,496 | -19.65% | -8.12% | |
| Oct-05 | 36,995,007 | 127,606 | -25.88% | -9.82% | |
| Nov-05 | 33,911,260 | 90,274 | -8.34% | -29.26% | |
| Dec-05 | 39,541,375 | 95,977 | 16.60% | 6.32% | |
| Jan-06 | 36,303,519 | 110,064 | -8.19% | 14.68% | 5 |
| Feb-06 | 36,046,531 | 107,946 | -0.71% | -1.92% | |
| Mar-06 | 36,885,006 | 91,305 | 2.33% | -15.42% | 6 |
| Apr-06 | 35,031,829 | 104,904 | -5.02% | 14.89% | 7 |
| May-06 | 43,795,018 | 101,807 | 25.01% | -2.95% | 8 |
| Jun-06 | 56,669,012 | 101,042 | 29.40% | -0.75% | 9 |
| Jul-06 | 66,884,748 | 137,870 | 18.03% | 36.45% | |
| Aug-06 | 65,319,637 | 166,145 | -2.34% | 20.51% | 10 |
| Sep-06 | 44,499,438 | 147,033 | -31.87% | -11.50% | |
| Oct-06 | 37,763,280 | 130,900 | -15.14% | -10.97% | |
| Nov-06 | 34,841,131 | 106,639 | -7.74% | -18.53% | |
| Dec-06 | 37,743,640 | 100,214 | 8.33% | -6.03% | 11 |
| Jan-07 | 44,261,292 | 137,840 | 17.27% | 37.55% | |
| Feb-07 | 40,958,135 | 123,878 | -7.46% | -10.13% | |
| Mar-07 | 40,012,229 | 129,576 | -2.31% | 4.60% | 12 |
| Apr-07 | 38,409,071 | 122,114 | -4.01% | -5.76% | |
| May-07 | 48,099,820 | 124,347 | 25.23% | 1.83% | |
| Jun-07 | 58,882,700 | 118,484 | 22.42% | -4.72% | 13 |
| Jul-07 | 68,723,789 | 149,411 | 16.71% | 26.10% | |
| Aug-07 | 77,114,245 | 178,036 | 12.21% | 19.16% | |
| Sep-07 | 55,747,736 | 144,756 | -27.71% | -18.69% | |
| Oct-07 | 41,202,044 | 162,957 | -26.09% | 12.57% | 14 |
| Nov-07 | 38,859,081 | 127,986 | -5.69% | -21.46% | |
| Dec-07 | 43,701,227 | 115,639 | 12.46% | -9.65% | 15 |
| Jan-08 | 45,710,932 | 144,412 | 4.60% | 24.88% | |
| Feb-08 | 46,959,039 | 129,995 | 2.73% | -9.98% | 16 |
| Mar-08 | 43,052,464 | 117,191 | -8.32% | -9.85% | |
| Apr-08 | 42,131,310 | 108,632 | -2.14% | -7.30% | |
| May-08 | 48,483,145 | 113,720 | 15.08% | 4.68% | |
| Jun-08 | 62,732,154 | 126,975 | 29.39% | 11.66% | |
| Jul-08 | 72,765,270 | 158,805 | 15.99% | 25.07% | |
| Aug-08 | 71,909,598 | 178,529 | -1.18% | 12.42% | 17 |
| Sep-08 | 52,639,422 | 208,799 | -26.80% | 16.96% | 18 |
| Oct-08 | 43,725,874 | 175,683 | -16.93% | -15.86% | |
| Nov-08 | 39,046,805 | 96,750 | -10.70% | -44.93% | |
| Dec-08 | 46,213,179 | 184,379 | 18.35% | 90.57% | |

| | | | | | |
|--------|------------|---------|---------|---------|----|
| Jan-09 | 47,737,364 | 158,946 | 3.30% | -13.79% | 19 |
| Feb-09 | 41,383,277 | 127,116 | -13.31% | -20.03% | |
| Mar-09 | 45,155,064 | 100,034 | 9.11% | -21.30% | 20 |
| Apr-09 | 41,657,762 | 112,652 | -7.75% | 12.61% | 21 |
| May-09 | 46,511,598 | 121,955 | 11.65% | 8.26% | |
| Jun-09 | 62,916,870 | 113,737 | 35.27% | -6.74% | 22 |
| Jul-09 | 69,202,559 | 146,391 | 9.99% | 28.71% | |
| Aug-09 | 66,643,608 | 173,689 | -3.70% | 18.65% | 23 |
| Sep-09 | 57,399,681 | 140,392 | -13.87% | -19.17% | |
| Oct-09 | 52,378,254 | 152,904 | -8.75% | 8.91% | 24 |
| Nov-09 | 45,218,105 | 116,222 | -13.67% | -23.99% | |
| Dec-09 | 56,481,043 | 133,384 | 24.91% | 14.77% | |
| Jan-10 | 50,506,211 | 156,355 | -10.58% | 17.22% | 25 |
| Feb-10 | 57,857,901 | 143,772 | 14.56% | -8.05% | 26 |
| Mar-10 | 52,164,805 | 145,993 | -9.84% | 1.54% | 27 |
| Apr-10 | 48,628,159 | 126,156 | -6.78% | -13.59% | |
| May-10 | 55,998,631 | 111,026 | 15.16% | -11.99% | 28 |
| Jun-10 | 77,999,013 | 126,582 | 39.29% | 14.01% | |
| Jul-10 | 88,699,315 | 173,783 | 13.72% | 37.29% | |
| Aug-10 | 89,281,470 | 204,270 | 0.66% | 17.54% | |
| Sep-10 | 62,370,429 | 204,688 | -30.14% | 0.20% | 29 |

Note: Prior to Case No ER-2012-0174, % of Retail revenues was calculated based on Gross Retail Revenue and Gross Forfeited Discounts. This was identified by the KCPL in Case No ER-2010-0355. The percentage was based on Revenues and Forfeited Discounts net of Gross Receipts Tax beginning with the 12 month period September 30, 2011 (Test Year)

** This shows the number of times Revenue and Forfeited Discounts moved in different directions based on change in Revenues and change in Forfeited Discounts.

Kansas City Power & Light Company
Case No. ER-2018-0145
Missouri Forfeited Discounts (Late Payment Fees)
Case No. ER-2018-0145

| <u>Revenue Month</u> | <u>MO Total Retail Revenue Net of GRT</u> | <u>MO Forfeited Discounts Net of GRT</u> | <u>Change in Revenues</u> | <u>Change in Forfeited Discounts</u> | <u>No. of Occurrence **</u> |
|----------------------|---|--|---------------------------|--------------------------------------|-----------------------------|
| Oct-10 | 44,843,482 | 149,219 | -28.10% | -27.10% | |
| Nov-10 | 45,555,835 | 131,231 | 1.59% | -12.05% | 30 |
| Dec-10 | 50,546,732 | 112,638 | 10.96% | -14.17% | 31 |
| Jan-11 | 50,880,253 | 117,665 | 0.66% | 4.46% | |
| Feb-11 | 47,449,546 | 107,420 | -6.74% | -8.71% | |
| Mar-11 | 47,577,291 | 116,480 | 0.27% | 8.43% | |
| Apr-11 | 44,630,894 | 154,325 | -6.19% | 32.49% | 32 |
| May-11 | 52,997,498 | 219,685 | 18.75% | 42.35% | |
| Jun-11 | 77,349,117 | 210,091 | 45.95% | -4.37% | 33 |
| Jul-11 | 94,351,066 | 145,651 | 21.98% | -30.67% | 34 |
| Aug-11 | 83,481,154 | 96,647 | -11.52% | -33.64% | |
| Sep-11 | 54,086,580 | 107,275 | -35.21% | 11.00% | 35 |
| Oct-11 | 52,241,107 | 163,163 | -3.41% | 52.10% | 36 |
| Nov-11 | 47,324,234 | 111,927 | -9.41% | -31.40% | |
| Dec-11 | 50,769,775 | 110,917 | 7.28% | -0.90% | 37 |
| Jan-12 | 50,289,339 | 136,233 | -0.95% | 22.82% | 38 |
| Feb-12 | 48,596,289 | 124,800 | -3.37% | -8.39% | |
| Mar-12 | 49,063,322 | 114,981 | 0.96% | -7.87% | 39 |
| Apr-12 | 47,154,390 | 123,092 | -3.89% | 7.05% | 40 |
| May-12 | 59,400,860 | 110,902 | 25.97% | -9.90% | 41 |
| Jun-12 | 76,279,227 | 109,615 | 28.41% | -1.16% | 42 |
| Jul-12 | 93,935,116 | 162,238 | 23.15% | 48.01% | |
| Aug-12 | 79,288,166 | 237,557 | -15.59% | 46.43% | 43 |
| Sep-12 | 56,548,845 | 154,369 | -28.68% | -35.02% | |
| Oct-12 | 50,904,708 | 156,165 | -9.98% | 1.16% | 44 |
| Nov-12 | 46,015,799 | 125,698 | -9.60% | -19.51% | |
| Dec-12 | 50,171,648 | 113,049 | 9.03% | -10.06% | 45 |
| Jan-13 | 51,107,856 | 135,472 | 1.87% | 19.83% | |
| Feb-13 | 53,587,208 | 128,443 | 4.85% | -5.19% | 46 |
| Mar-13 | 57,183,177 | 131,512 | 6.71% | 2.39% | |
| Apr-13 | 51,699,175 | 124,935 | -9.59% | -5.00% | |
| May-13 | 61,392,338 | 134,965 | 18.75% | 8.03% | |
| Jun-13 | 75,513,189 | 120,191 | 23.00% | -10.95% | 47 |
| Jul-13 | 86,882,229 | 172,642 | 15.06% | 43.64% | |
| Aug-13 | 86,046,087 | 201,225 | -0.96% | 16.56% | 48 |
| Sep-13 | 66,408,595 | 172,197 | -22.82% | -14.43% | |
| Oct-13 | 53,282,413 | 128,615 | -19.77% | -25.31% | |
| Nov-13 | 52,490,727 | 92,443 | -1.49% | -28.12% | |
| Dec-13 | 58,043,678 | 141,534 | 10.58% | 53.10% | |
| Jan-14 | 59,369,270 | 174,244 | 2.28% | 23.11% | |
| Feb-14 | 55,961,495 | 154,209 | -5.74% | -11.50% | |
| Mar-14 | 55,493,865 | 123,308 | -0.84% | -20.04% | |
| Apr-14 | 50,797,624 | 131,379 | -8.46% | 6.55% | 49 |
| May-14 | 62,974,293 | 123,274 | 23.97% | -6.17% | 50 |

| | | | | | |
|--------|-------------|---------|---------|---------|----|
| Jun-14 | 76,631,505 | 132,743 | 21.69% | 7.68% | |
| Jul-14 | 83,254,847 | 163,553 | 8.64% | 23.21% | |
| Aug-14 | 90,362,430 | 181,526 | 8.54% | 10.99% | |
| Sep-14 | 62,178,123 | 187,771 | -31.19% | 3.44% | 51 |
| Oct-14 | 53,719,652 | 172,711 | -13.60% | -8.02% | |
| Nov-14 | 55,983,006 | 103,407 | 4.21% | -40.13% | 52 |
| Dec-14 | 57,723,673 | 163,572 | 3.11% | 58.18% | |
| Jan-15 | 58,373,919 | 185,626 | 1.13% | 13.48% | |
| Feb-15 | 60,703,198 | 140,195 | 3.99% | -24.47% | 53 |
| Mar-15 | 51,485,742 | 146,116 | -15.18% | 4.22% | 54 |
| Apr-15 | 50,594,853 | 150,300 | -1.73% | 2.86% | 55 |
| May-15 | 59,201,854 | 128,091 | 17.01% | -14.78% | 56 |
| Jun-15 | 79,128,042 | 114,849 | 33.66% | -10.34% | 57 |
| Jul-15 | 90,463,948 | 174,214 | 14.33% | 51.69% | |
| Aug-15 | 86,986,030 | 213,078 | -3.84% | 22.31% | 58 |
| Sep-15 | 69,317,588 | 161,366 | -20.31% | -24.27% | |
| Oct-15 | 65,540,120 | 168,862 | -5.45% | 4.65% | 59 |
| Nov-15 | 66,450,092 | 133,261 | 1.39% | -21.08% | 60 |
| Dec-15 | 66,204,930 | 150,175 | -0.37% | 12.69% | 61 |
| Jan-16 | 63,232,078 | 160,606 | -4.49% | 6.95% | 62 |
| Feb-16 | 67,878,522 | 151,185 | 7.35% | -5.87% | 63 |
| Mar-16 | 56,828,740 | 91,862 | -16.28% | -39.24% | |
| Apr-16 | 55,623,357 | 116,610 | -2.12% | 26.94% | 64 |
| May-16 | 70,242,025 | 113,250 | 26.28% | -2.88% | 65 |
| Jun-16 | 98,737,852 | 143,983 | 40.57% | 27.14% | |
| Jul-16 | 103,416,586 | 188,402 | 4.74% | 30.85% | |
| Aug-16 | 103,866,143 | 234,022 | 0.43% | 24.21% | |
| Sep-16 | 77,693,014 | 211,503 | -25.20% | -9.62% | |
| Oct-16 | 68,375,353 | 174,148 | -11.99% | -17.66% | |
| Nov-16 | 60,009,458 | 139,133 | -12.24% | -20.11% | |
| Dec-16 | 80,000,048 | 141,388 | 33.31% | 1.62% | |
| Jan-17 | 69,056,376 | 182,488 | -13.68% | 29.07% | 66 |
| Feb-17 | 60,828,208 | 165,343 | -11.92% | -9.40% | |
| Mar-17 | 62,356,714 | 156,677 | 2.51% | -5.24% | 67 |
| Apr-17 | 61,199,463 | 144,737 | -1.86% | -7.62% | |
| May-17 | 70,869,655 | 131,293 | 15.80% | -9.29% | 68 |
| Jun-17 | 96,640,250 | 158,582 | 36.36% | 20.78% | |
| Jul-17 | 116,852,395 | 201,382 | 20.91% | 26.99% | |
| Aug-17 | 98,195,343 | 255,315 | -15.97% | 26.78% | 69 |
| Sep-17 | 79,653,925 | 184,313 | -18.88% | -27.81% | |
| Oct-17 | 72,637,384 | 185,588 | -8.81% | 0.69% | 70 |
| Nov-17 | 66,239,677 | 162,427 | -8.81% | -12.48% | |
| Dec-17 | 74,913,081 | 135,067 | 13.09% | -16.84% | 71 |

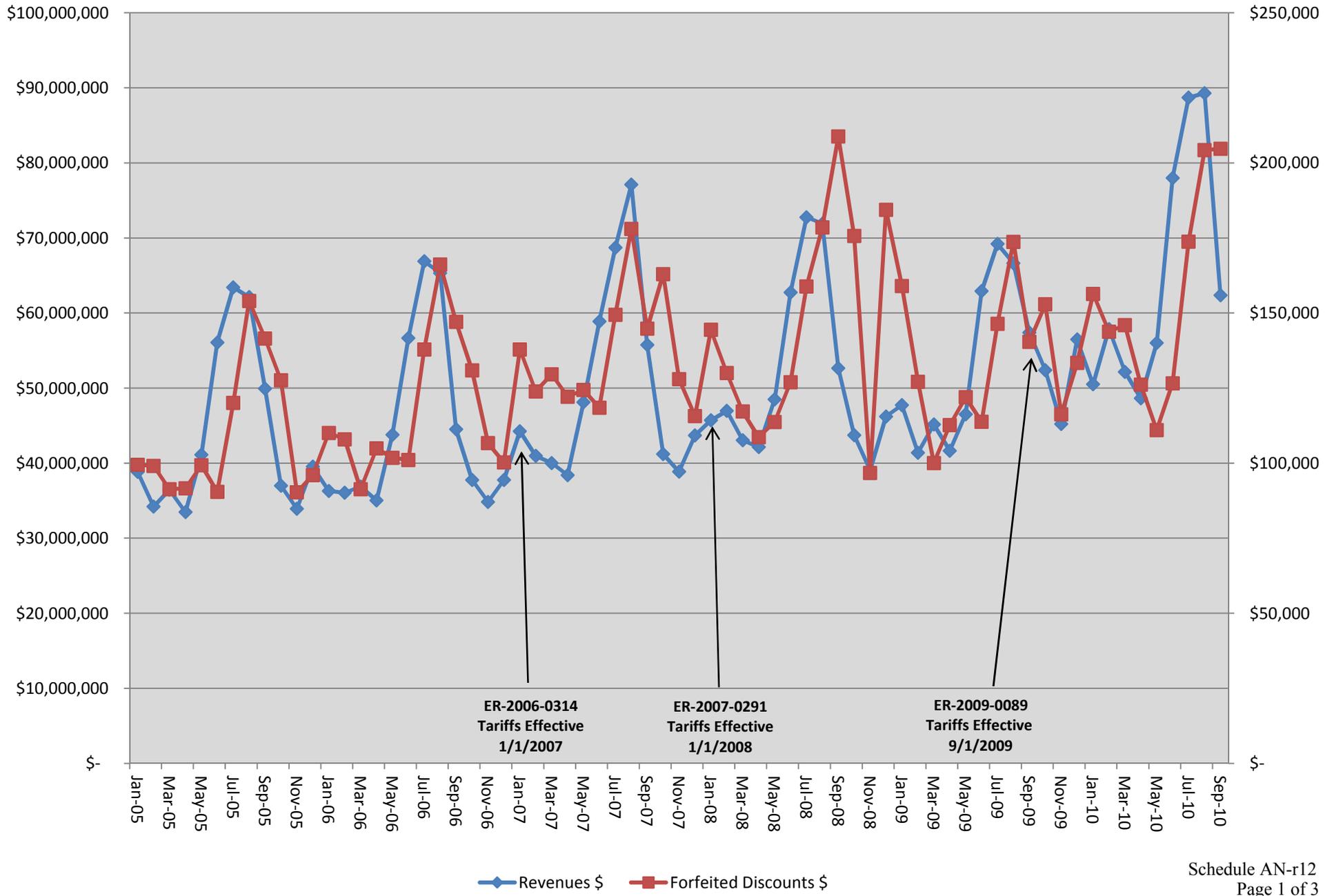
Note: Prior to Case No ER-2012-0174, % of Retail revenues was calculated based on Gross Retail Revenue and Gross Forfeited Discounts. This was identified by the KCPL in Case No ER-2010-0355. The percentage was based on Revenues and Forfeited Discounts net of Gross Receipts Tax beginning with the 12 month period September 30, 2011 (Test Year)

** This shows the number of times Revenue and Forfeited Discounts moved in different directions based on change in Revenues and change in Forfeited Discounts.

KCP&L - Forfeited Discount Analysis

Case No. ER-2018-0145 - 2005 Through September 2010

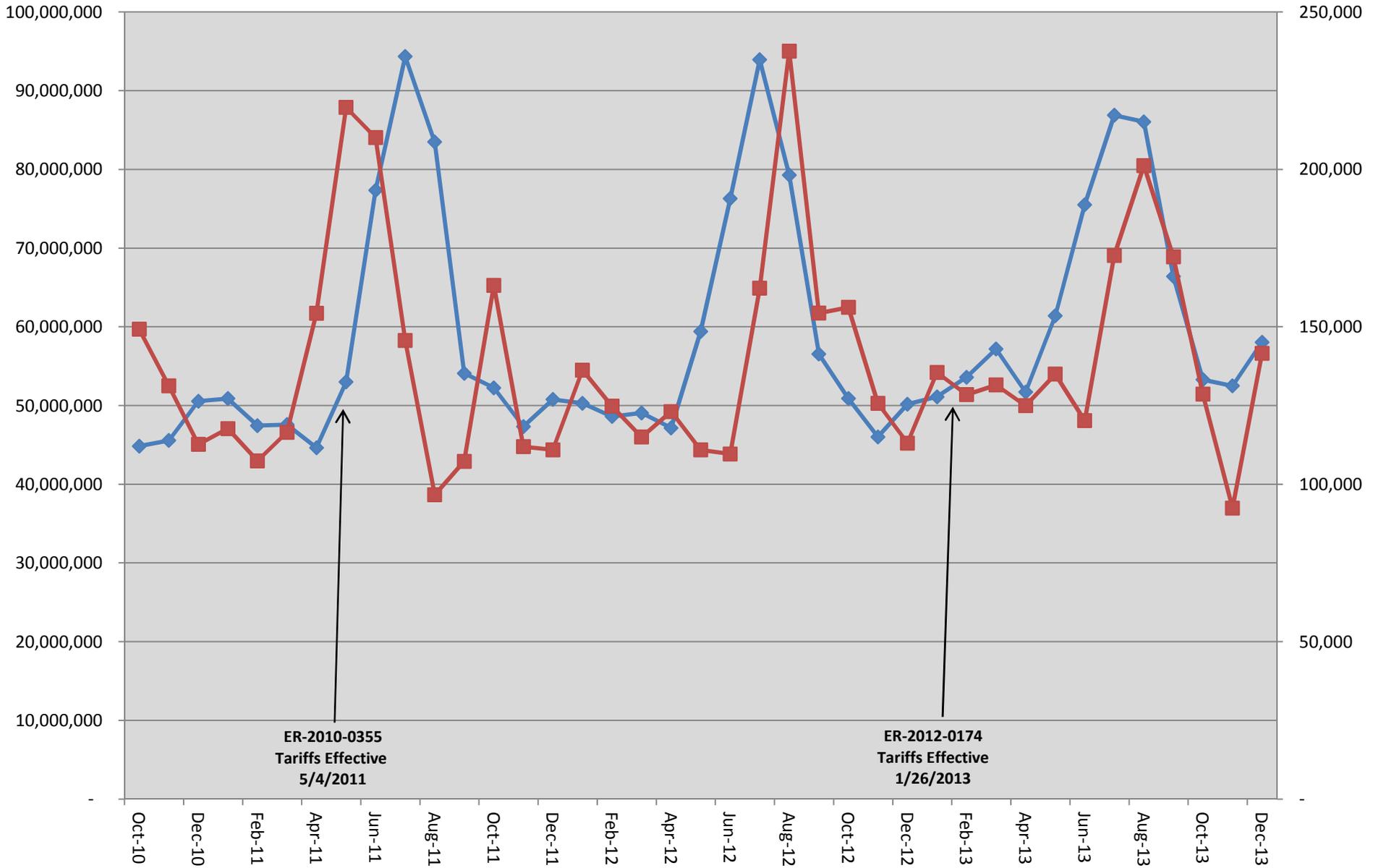
MO Retail Revenues \$



KCP&L - Forfeited Discount Analysis

Case No. ER-2018-0145 - October 2010 Through December 2013

MO Retail Revenues \$

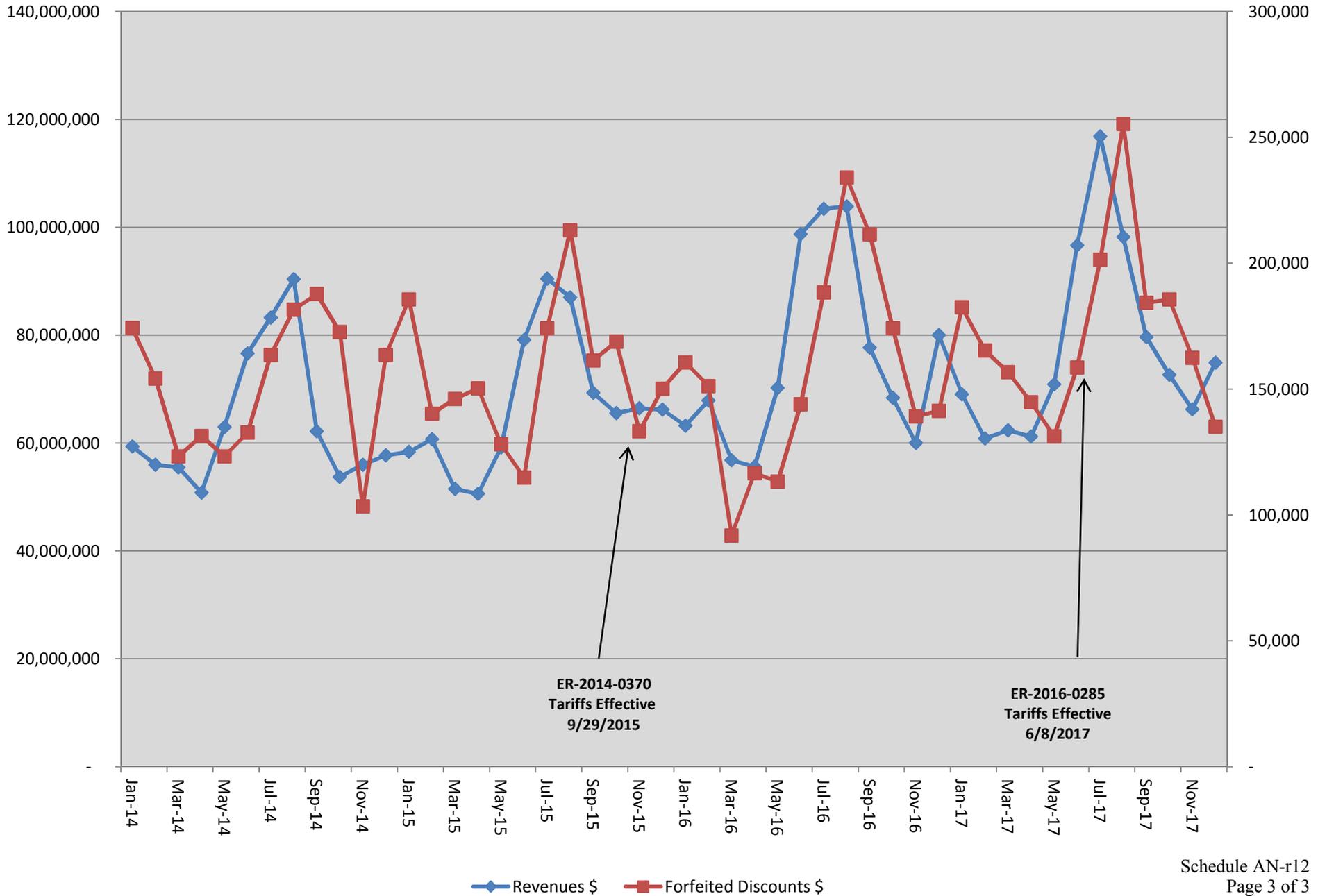


◆ Revenues \$ ■ Forfeited Discounts \$

KCP&L - Forfeited Discount Analysis

Case No. ER-2018-0145 - January 2014 Through December 2017

MO Retail Revenues \$



KCP&L Greater Missouri Operations Company- GMO

Case No. ER-2018-0146

Forfeited Discount (Late Payment Fees)

Prepared by Antonija Nieto

| <u>Revenue Month</u> | <u>GMO Forfeited Discounts</u> | <u>GMO Total Retail Revenue</u> | <u>Change in Forfeited Discounts</u> | <u>Change in Revenues</u> | <u>No. of Occurrences**</u> |
|----------------------|--------------------------------|---------------------------------|--------------------------------------|---------------------------|-----------------------------|
| Jan-09 | 75,075 | 52,083,264 | | | |
| Feb-09 | 51,512 | 38,439,662 | -31.39% | -26.20% | |
| Mar-09 | 48,133 | 42,192,593 | -6.56% | 9.76% | 1 |
| Apr-09 | 45,810 | 35,741,407 | -4.83% | -15.29% | |
| May-09 | 46,311 | 45,362,518 | 1.09% | 26.92% | |
| Jun-09 | 43,349 | 67,433,384 | -6.40% | 48.65% | 2 |
| Jul-09 | 58,196 | 66,969,358 | 34.25% | -0.69% | 3 |
| Aug-09 | 72,324 | 65,760,553 | 24.28% | -1.81% | 4 |
| Sep-09 | 68,865 | 51,616,138 | -4.78% | -21.51% | |
| Oct-09 | 63,797 | 46,852,886 | -7.36% | -9.23% | |
| Nov-09 | 50,329 | 44,057,310 | -21.11% | -5.97% | |
| Dec-09 | 56,357 | 56,646,407 | 11.98% | 28.57% | |
| Jan-10 | 57,743 | 61,924,894 | 2.46% | 9.32% | |
| Feb-10 | 66,510 | 49,336,973 | 15.18% | -20.33% | 5 |
| Mar-10 | 58,013 | 47,029,674 | -12.78% | -4.68% | |
| Apr-10 | 50,763 | 38,188,325 | -12.50% | -18.80% | |
| May-10 | 46,847 | 53,953,367 | -7.71% | 41.28% | 6 |
| Jun-10 | 48,350 | 78,063,724 | 3.21% | 44.69% | |
| Jul-10 | 72,737 | 88,460,567 | 50.44% | 13.32% | |
| Aug-10 | 88,550 | 88,138,127 | 21.74% | -0.36% | 7 |
| Sep-10 | 85,021 | 54,548,639 | -3.99% | -38.11% | |
| Oct-10 | 71,244 | 38,838,251 | -16.20% | -28.80% | |
| Nov-10 | 51,494 | 42,905,418 | -27.72% | 10.47% | 8 |
| Dec-10 | 55,581 | 54,258,603 | 7.94% | 26.46% | |
| Jan-11 | 64,835 | 54,412,795 | 16.65% | 0.28% | |
| Feb-11 | 60,828 | 50,470,312 | -6.18% | -7.25% | |
| Mar-11 | 57,747 | 47,818,166 | -5.07% | -5.25% | |
| Apr-11 | 49,929 | 41,653,638 | -13.54% | -12.89% | |
| May-11 | 47,976 | 53,270,344 | -3.91% | 27.89% | 9 |
| Jun-11 | 48,249 | 77,826,511 | 0.57% | 46.10% | |
| Jul-11 | 60,713 | 105,927,972 | 25.83% | 36.11% | |
| Aug-11 | 99,923 | 94,095,591 | 64.58% | -11.17% | 10 |
| Sep-11 | 92,584 | 54,885,615 | -7.34% | -41.67% | |
| Oct-11 | 77,568 | 43,893,921 | -16.22% | -20.03% | |
| Nov-11 | 52,879 | 45,774,621 | -31.83% | 4.28% | 11 |
| Dec-11 | 59,798 | 51,633,206 | 13.08% | 12.80% | |
| Jan-12 | 66,059 | 51,184,192 | 10.47% | -0.87% | 12 |
| Feb-12 | 62,328 | 47,725,046 | -5.65% | -6.76% | |
| Mar-12 | 55,971 | 45,688,311 | -10.20% | -4.27% | |
| Apr-12 | 53,058 | 43,144,866 | -5.20% | -5.57% | |
| May-12 | 49,458 | 60,509,211 | -6.78% | 40.25% | 13 |
| Jun-12 | 49,029 | 82,524,503 | -0.87% | 36.38% | 14 |
| Jul-12 | 68,577 | 104,331,818 | 39.87% | 26.43% | |
| Aug-12 | 102,524 | 86,693,029 | 49.50% | -16.91% | 15 |
| Sep-12 | 80,348 | 57,653,431 | -21.63% | -33.50% | |
| Oct-12 | 77,287 | 46,133,202 | -3.81% | -19.98% | |

KCP&L Greater Missouri Operations Company- GMO

Case No. ER-2018-0146

Forfeited Discount (Late Payment Fees)

Prepared by Antonija Nieto

| <u>Revenue Month</u> | <u>GMO Forfeited Discounts</u> | <u>GMO Total Retail Revenue</u> | <u>Change in Forfeited Discounts</u> | <u>Change in Revenues</u> | <u>No. of Occurrences**</u> |
|----------------------|--------------------------------|---------------------------------|--------------------------------------|---------------------------|-----------------------------|
| Nov-12 | 61,573 | 46,642,912 | -20.33% | 1.10% | 16 |
| Dec-12 | 43,797 | 54,163,229 | -28.87% | 16.12% | 17 |
| Jan-13 | 61,547 | 55,754,487 | 40.53% | 2.94% | |
| Feb-13 | 68,768 | 54,304,690 | 11.73% | -2.60% | 18 |
| Mar-13 | 61,010 | 58,987,632 | -11.28% | 8.62% | 19 |
| Apr-13 | 67,848 | 47,524,484 | 11.21% | -19.43% | 20 |
| May-13 | 59,911 | 63,200,791 | -11.70% | 32.99% | 21 |
| Jun-13 | 50,788 | 74,835,936 | -15.23% | 18.41% | 22 |
| Jul-13 | 71,022 | 88,053,464 | 39.84% | 17.66% | |
| Aug-13 | 86,428 | 87,720,626 | 21.69% | -0.38% | 23 |
| Sep-13 | 81,088 | 67,091,806 | -6.18% | -23.52% | |
| Oct-13 | 87,934 | 49,500,249 | 8.44% | -26.22% | 24 |
| Nov-13 | 50,311 | 51,784,834 | -42.79% | 4.62% | 25 |
| Dec-13 | 74,135 | 62,766,735 | 47.35% | 21.21% | |
| Jan-14 | 76,759 | 67,301,409 | 3.54% | 7.22% | |
| Feb-14 | 75,498 | 67,561,330 | -1.64% | 0.39% | 26 |
| Mar-14 | 67,857 | 57,592,856 | -10.12% | -14.75% | |
| Apr-14 | 54,740 | 50,055,963 | -19.33% | -13.09% | |
| May-14 | 52,765 | 68,204,969 | -3.61% | 36.26% | 27 |
| Jun-14 | 52,803 | 80,023,816 | 0.07% | 17.33% | |
| Jul-14 | 76,730 | 83,660,226 | 45.31% | 4.54% | |
| Aug-14 | 74,588 | 90,784,826 | -2.79% | 8.52% | 28 |
| Sep-14 | 78,807 | 64,579,689 | 5.66% | -28.87% | 29 |
| Oct-14 | 88,891 | 52,684,788 | 12.80% | -18.42% | 30 |
| Nov-14 | 46,764 | 60,960,112 | -47.39% | 15.71% | 31 |
| Dec-14 | 73,336 | 59,434,833 | 56.82% | -2.50% | 32 |
| Jan-15 | 82,339 | 60,810,760 | 12.28% | 2.32% | |
| Feb-15 | 70,146 | 57,366,195 | -14.81% | -5.66% | |
| Mar-15 | 65,685 | 48,822,232 | -6.36% | -14.89% | |
| Apr-15 | 59,008 | 45,287,093 | -10.16% | -7.24% | |
| May-15 | 50,008 | 59,329,699 | -15.25% | 31.01% | 33 |
| Jun-15 | 47,617 | 77,567,315 | -4.78% | 30.74% | 34 |
| Jul-15 | 68,901 | 91,931,971 | 44.70% | 18.52% | |
| Aug-15 | 90,914 | 87,002,967 | 31.95% | -5.36% | |
| Sep-15 | 80,798 | 63,652,645 | -11.13% | -26.84% | |
| Oct-15 | 76,816 | 47,504,607 | -4.93% | -25.37% | |
| Nov-15 | 51,243 | 53,104,890 | -33.29% | 11.79% | 35 |
| Dec-15 | 58,731 | 52,623,109 | 14.61% | -0.91% | 36 |
| Jan-16 | 60,440 | 58,271,331 | 2.91% | 10.73% | |
| Feb-16 | 66,438 | 52,389,970 | 9.92% | -10.09% | 37 |
| Mar-16 | 57,875 | 49,809,124 | -12.89% | -4.93% | |
| Apr-16 | 43,308 | 44,418,732 | -25.17% | -10.82% | |
| May-16 | 47,439 | 53,841,843 | 9.54% | 21.21% | |
| Jun-16 | 45,980 | 86,496,102 | -3.08% | 60.65% | 38 |
| Jul-16 | 66,285 | 89,880,292 | 44.16% | 3.91% | |
| Aug-16 | 91,040 | 92,834,154 | 37.35% | 3.29% | |

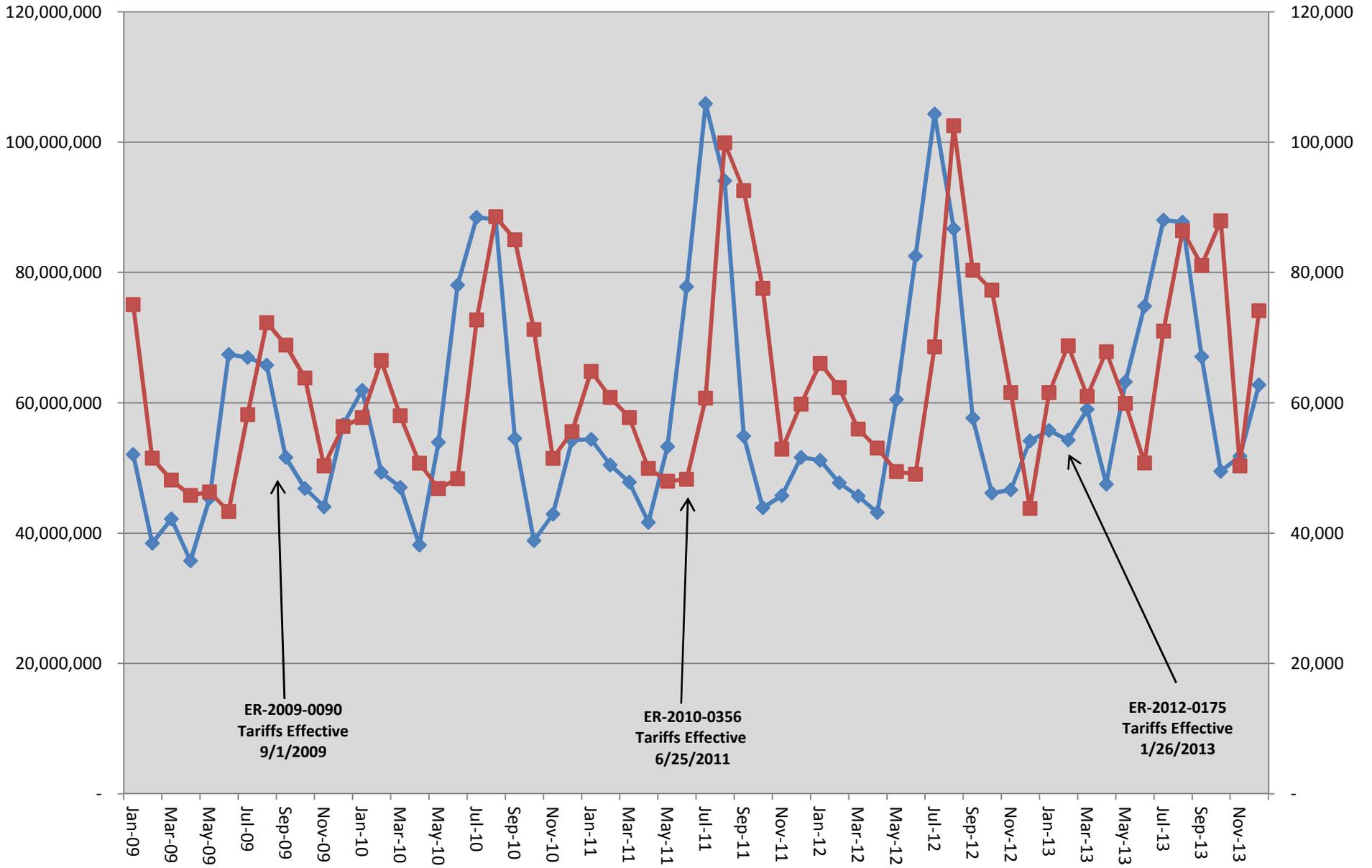
KCP&L Greater Missouri Operations Company- GMO
Case No. ER-2018-0146
Forfeited Discount (Late Payment Fees)
Prepared by Antonija Nieto

| <u>Revenue Month</u> | <u>GMO Forfeited Discounts</u> | <u>GMO Total Retail Revenue</u> | <u>Change in Forfeited Discounts</u> | <u>Change in Revenues</u> | <u>No. of Occurrences**</u> |
|----------------------|--------------------------------|---------------------------------|--------------------------------------|---------------------------|-----------------------------|
| Sep-16 | 85,026 | 64,975,479 | -6.61% | -30.01% | |
| Oct-16 | 74,398 | 49,898,013 | -12.50% | -23.20% | |
| Nov-16 | 47,940 | 49,109,811 | -35.56% | -1.58% | |
| Dec-16 | 51,717 | 63,792,556 | 7.88% | 29.90% | |
| Jan-17 | 59,880 | 58,305,993 | 15.78% | -8.60% | 39 |
| Feb-17 | 67,051 | 52,201,971 | 11.98% | -10.47% | 40 |
| Mar-17 | 57,708 | 54,832,924 | -13.93% | 5.04% | 41 |
| Apr-17 | 47,648 | 49,748,704 | -17.43% | -9.27% | |
| May-17 | 47,449 | 60,397,202 | -0.42% | 21.40% | 42 |
| Jun-17 | 49,166 | 79,130,491 | 3.62% | 31.02% | |
| Jul-17 | 67,168 | 97,270,254 | 36.61% | 22.92% | |
| Aug-17 | 85,990 | 83,938,416 | 28.02% | -13.71% | 43 |
| Sep-17 | 77,335 | 67,982,220 | -10.07% | -19.01% | |
| Oct-17 | 74,257 | 53,257,675 | -3.98% | -21.66% | |
| Nov-17 | 53,275 | 53,216,909 | -28.26% | -0.08% | |
| Dec-17 | 57,359 | 63,053,799 | 7.67% | 18.48% | |

** This shows the number of times Revenue and Forfeited Discounts moved in different directions based on change in Revenues and change in Forfeited Discounts.

KCPL GMO - Forfeited Discount Analysis January 2009 Through December 2013

MO Retail Revenues \$



◆ Retail Revenues \$
 ■ Forfeited Discounts \$

KCPL GMO - Forfeited Discount Analysis January 2014 Through December 2017

MO Retail Revenues \$

