Exhibit No. 136

Staff – Exhibit 136 Testimony of Kim Cox Rebuttal File No. ER-2024-0261

Exhibit No.:

Issue(s): Customer Growth
Witness: Kim Cox

Sponsoring Party: MoPSC Staff
Type of Exhibit: Rebuttal Testimony

Case No.: ER-2024-0261

Date Testimony Prepared: August 18, 2025

MISSOURI PUBLIC SERVICE COMMISSION

INDUSTRY ANALYSIS DIVISION

TARIFF/RATE DESIGN DEPARTMENT

REBUTTAL TESTIMONY

OF

KIM COX

THE EMPIRE DISTRICT ELECTRIC COMPANY, d/b/a Liberty

CASE NO. ER-2024-0261

Jefferson City, Missouri August 2025

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1		REBUTTAL TESTIMONY
2		\mathbf{OF}
3		KIM COX
4 5		THE EMPIRE DISTRICT ELECTRIC COMPANY, d/b/a Liberty
6		CASE NO. ER-2024-0261
7	Q.	Please state your name and business address.
8	A.	My name is Kim Cox, 200 Madison Street, Jefferson City, Missouri 65101.
9	Q.	By whom are you employed and in what capacity?
10	A.	I am employed by the Missouri Public Service Commission ("Commission") as
11	a Senior Re	esearch/Data Analyst for the Tariff/Rate Design Department, in the Industry
12	Analysis Div	vision.
13	Q.	Have you previously filed testimony in this case?
14	A.	Yes. I provided direct testimony as part of the revenue requirement filed on
15	July 2, 2025	
16	Q.	What is the purpose of your rebuttal testimony?
17	A.	The purpose of my rebuttal testimony is to respond to The Empire District
18	Electric Con	mpany, d/b/a Liberty ("Empire") witness Tim Lyon's direct testimony and the
19	update per	iod workpapers ¹ regarding Empire's customer annualization adjustment.
20	Specifically,	I will address:

Workpaper: Update Period Billing Determinants_vUpdate and WP (Annualization) – Residential General_vUpdate (CONFIDENTIAL).

1	1. Manual adjustments to correct for billing issues.
2	2. Billed account (customer charge) versus active accounts.
3	3. Estimating usage with assumptions.
4	4. Adjust for active accounts as of September 2024.
5	Q. What direct testimony did Mr. Lyon's provide for the customer
6	annualization adjustment?
7	A. Mr. Lyon's testifies that the approach to derive the customer annualization
8	adjustment consisted of identifying new customers added during the test year and annualizing
9	existing customers who switched rate classes during the test year and assigning their revenues
10	to the new rate class based on each customer's revenue per month. ²
11	In addition, Empire's response to Staff Data Request ("DR") 0109 provided the
12	following description of the adjustment.
13	Customer Annualization Adjustment (REV ADJ 3) - The adjustment includes
14	annualizing billing determinants based on active customers as of September 2024.
15	The adjustment is done on a customer-level basis.
16	The adjustment also includes addition of missing customer billing determinants,
17	particularly for a few Small Primary and Large General customers.
18	Lastly, the adjustment includes estimation of any missing customer billing
19	determinants, particularly for Residential and General Service Classes.

² Empire witness, Tim Lyons direct testimony, page 9, lines 9-14.

MANUAL ADJUSTMENTS TO CORRECT FOR BILLING ISSUES

Q. As mentioned above, Empire provided update period workpapers. Are Staff and Empire's update period billing determinants the same?

A. No. On February 12, 2025, and March 25, 2025, Empire provided Staff additional manual billing determinant adjustments to attempt to correct Empire's ongoing billing issues.³ Staff applied those adjustments; however, Empire did not. Provided below are Staff and Empire's total residential customer charge counts after the manual adjustments and before any other adjustments were made.

	2023	2023	2023	2024	2024	2024	2024	2024	2024	2024	2024	2024
	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Staff	140,972	141,149	141,020	142,101	142,721	142,562	142,899	142,687	142,962	143,545	143,218	143,394
Empire	140,972	141,149	141,020	142,101	142,721	142,562	142,868	142,591	142,763	143,126	142,528	142,150

Instead of manually adjusting for the additional billing issues, Empire used active accounts to annualize usage during the update period. Empire counted an account as active if any of the 12 months of the update period had usage. The total residential customer charge count Empire used to isolate active customers was 141,323 with rate code specific below.

Isolated	solated Active Customers Only											
	1023	1123	1232	124	224	324	424	524	624	724	824	924
NS RG	678	678	678	678	678	678	678	678	678	678	678	678
TC RG	140,571	140,571	140,571	140,571	140,571	140,571	140,571	140,571	140,571	140,571	140,571	140,571
TP RG	74	74	74	74	74	74	74	74	74	74	74	74
Total	141,323											

Q. Does Staff agree with using active accounts to develop starting billing determinants?

³ Described in my direct testimony and Staff witness Charles Tyrone Thomason.

A. No. The active accounts had missing usage and assumptions were made to fill in the data. The manual adjustments should have been accounted for and the starting billing determinants should be the same for Staff and Empire.

BILLED ACCOUNT (CUSTOMER CHARGE) VERSUS ACTIVE ACCOUNT

- Q. Did Empire provide information to Staff about active accounts versus customer charge counts?
- A. Yes. On May 16, 2025, Staff emailed Empire and asked what the difference is between a billed account and active account. Their response was that billed accounts are the number of tariffed customer charges that were included on a customer's bill during the respective time period and active accounts are the count of meters that are turned on and can receive power from Empire's system. In the email Staff also asked in what scenario would an active meter not receive a bill and Empire responded that all active meter should be receiving a monthly bill and that the billing determinants provided have not been adjusted for partial/final bills.

Empire provided Staff the following example of a final and partial bill. If a customer moved out and another moved in on the 15th of the month, they both would have received a bill with a prorated customer charge, and the customer charge count in the billing determinants file would reflect a count of 2 for that installation number.

- Q. Does Empire have tariff language about billed accounts and active accounts?
- A. No. Staff recommends Empire add tariff language providing the definition of both.

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ESTIMATING USAGE WITH ASSUMPTIONS

- Q. To better understand Empire's annualization adjustment and making assumptions to usage, please provide the non-standard residential ("NS RG") customer annualization adjustment.
- A. Below is Empire's NS RG actual billed, manually adjusted for billing issues, isolated active customer's, adjusted for zero usage, and active customers as of September 2024.

ctual billed													
Season	Category	1023	1123	1232	124	224	324	424	524	624	724	824	924
Annual	Customer Charge	562	560	530	550	528	520	462	709	664	453	768	4
Winter	kWh-1st Block	156,580	284,774	278,206	299,930	290,812	266,379	193,159	323,515	175,582	(752)	1,220	1
Summer	kWh-1st Block	135,322	1,323	-	2,400	-	-	-	-	137,689	231,153	371,255	253,6
Winter	kWh-2nd Block	147,090	248,996	366,641	667,871	674,283	287,423	104,257	322,355	145,054	(1,082)	2,238	6
Summer	kWh-2nd Block	135,756	12	-	2,899	-	-	-	-	206,841	346,867	572,546	326,0
1anually adju	sted												
Season	Category	1023	1123	1232	124	224	324	424	524	624	724	824	924
Annual	Customer Charge	562	560	530	550	528	520	664	612	618	625	631	6
Winter	kWh-1st Block	156,580	284,774	278,206	299,930	290,812	266,379	292,185	274,689	126,628	-	-	
Summer	kWh-1st Block	135,322	1,323	-	2,400	-	-	-	-	164,416	315,842	314,253	306,8
Winter	kWh-2nd Block	147,090	248,996	366,641	667,871	674,283	287,423	252,204	199,277	121,897	-	-	-
Summer	kWh-2nd Block	135,756	12	-	2,899	-	-	-	-	224,759	493,924	498,537	408,5
olated Active	e Customers Only												
Season	Category	1023	1123	1232	124	224	324	424	524	624	724	824	924
Annual	Customer Charge	678	678	678	678	678	678	678	678	678	678	678	6
Winter	kWh-1st Block	155,299	277,803	286,062	304,710	308,634	284,342	281,075	271,716	127,585	-	-	-
Summer	kWh-1st Block	130,216	(661)	-	-	-	-	-	-	165,824	310.861	313,863	306,4
Winter	kWh-2nd Block	138,553	239,022	350,637	662,371	689,674	291,400	259,581	206,487	122,728	-	-	300,
Summer	kWh-2nd Block	127,436	478	-	-	-	-	-	-	225,248	499,430	497,775	412,4
	illed in Zero Usage		7		7	224	224	424	524	C24	724	024	024
Season Annual	Category Customer Charge	1023	1123	1232	124	224	324	424	524	624	724	824	924
Winter	-	678	678	678	678	678	678	678	678	678	678	678	6
Summer	kWh-1st Block	176,524	308,504	325,275	341,884	346,594	313,872	303,052	288,289	147,754	-	-	
	kWh-1st Block	152,162	(704)	(0)	(1)	-	-	-	-	190,559	338,905	341,889	336,6
Winter	kWh-2nd Block	140,048	247,179	377,458	688,483	720,657	303,088	268,308	208,843	129,600	-	-	
Summer	kWh-2nd Block	128,573	478	-	-	-	-	-	-	250,585	557,129	580,106	480,5
nnualized - F	Reconciled with Act	tive Custo	mers										
Season	Category	1023	1123	1232	124	224	324	424	524	624	724	824	924
Annual	Customer Charge	705	705	705	705	705	705	705	705	705	705	705	7
Winter	kWh-1st Block	183,554	320,789	338,228	355,498	360,396	326,372	315,120	299,770	153,638	-	-	
Summer	kWh-1st Block	158,221	(732)	(0)	(1)	-	-	-	-	198,148	352,401	355,504	350,0
Winter	kWh-2nd Block	145,625	257,023	392,490	715,901	749,356	315,158	278,993	217,160	134,761	-	-	
Summer													

As displayed above, the isolated active customer charge counts increased over the manual customer charges every month, however, several months' kilowatt hour ("kWh") decreased.

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- 1 Q. Why would an active customer have zero kWh?
 - A. Staff asked Empire in an email on July 24, 2025, "If a token (customer) has a customer charge, how does it have zero usage?" and Empire responded "The customer had 12 months with zero usage. Usage was not estimated, as the customer is expected to continue having zero usage." Unfortunately, the response did not answer the question and therefore Staff does not know.
 - Q. How does an increase to the customer charge count result in a decrease in kWh?
 - A. Some active accounts had zero usage in some months. Empire filled in the zero usage with assumptions. In an email on July 24, 2025, Empire provided the below rules that were applied for the residential annualization analysis.

If a customer has zero usage in a month, usage is estimated based on available usage from other months.

- Exception #1: If a customer had zero usage and was a net metering customer, then zero usage is considered.
 - This reflects the assumption that net metering customers may continue to have zero usage.
- Exception #2: If a customer had zero usage in all 12 months, zero usage is considered.
 - This reflects the assumption that customers with historically zero usage (e.g., vacant properties) will continue to have zero usage.
 - O The Company evaluated a sample of such customers and found either vacant properties or special cases (e.g., barn, cattle well, garage, old church, fireworks stand).
- Q. What available usage from other months did Empire use to estimate a customer's usage?
- A. Empire used the total class active customers kWh and the total class active customers monthly block kWh. The residential class active percent kWh in each month is as follows:

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Total Class	6.6%	6.1%	7.7%	11.0%	12.7%	7.1%	6.7%	5.7%	8.0%	9.7%	9.9%	8.9%

The residential class percent of usage in each block and off-peak credit in each month is as follows:

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Percentages utilized													
for Annualization													
(Customers with 12													
Bills Only)		Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Winter	Total kWh Usage	5.19%	9.57%	12.01%	17.33%	19.88%	11.06%	10.58%	8.90%	5.47%	0.00%	0.00%	0.00%
Summer	Total kWh Usage	9.01%	-0.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	12.39%	26.71%	27.40%	24.51%
Annual	Off Peak Credit	5.64%	6.23%	8.70%	12.57%	14.83%	7.96%	7.16%	5.23%	6.84%	8.49%	8.66%	7.68%

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Q. Does Staff agree using the above for the assumptions?

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A. No. If an active customer only had usage in the summer months the winter

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months were not adjusted. In the example below taken from Empire's workpaper,⁴ Customer A only had active kWh in July, August, and September. After Empire annualized Customer A,

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they have no winter usage in October, November, March, April, and May and one (1) kWh

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December through February.⁵ During the months of November through April there is off-peak

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credit usage.⁶ A customer cannot have credit for usage when there was no usage.

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Custome	er A												
		October	November	December	January	February	March	April	May	June	July	August	September
Season	Category	2023	2023	2023	2024	2024	2024	2024	2024	2024	2024	2024	2024
Winter	Total kWh Usage	-	-	-	-	-	1	-	0	0	ı	1	-
Summer	Total kWh Usage	-	-	-	-	-	1	-	1	-	102	463	861
Annual	Off Peak Credit	-	-	-	-	-	1	-	0	0	10	95	162
Empire a	nnualized												
Winter	Total kWh Usage	0	0	1	1	1	0	0	0	0	1	1	-
Summer	Total kWh Usage	141	(0)	(0)	(0)	-	1	-	•	-	102	463	861
Annual	Off Peak Credit	41	45	63	91	107	58	52	0	0	10	95	162

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In addition, Empire assumed if a net metering customer had zero usage in a month then they would continue to have zero usage in that month. Empire assumed that non-net metering

⁴ Workpaper, WP (Annualization) – Residential General vUpdate (CONFIDENTIAL)

⁵ Empire's summer season is the first four monthly billing periods billed on and after June 16, and the winter season is the remaining eight monthly billing periods of the calendar.

⁶ Off-Peak kWh includes all kWh consumed between 10 PM and 6 AM daily.

- 1 customers usage was missing and estimated it but didn't make the same assumption for net
- 2 | metering customers. There is no way to know if a net metering customer's, or any customer's,
- 3 usage was missing or was actually zero.

ADJUST FOR ACTIVE ACCOUNTS AS OF SEPTEMBER 2024

- Q. After Empire made the assumptions described did they make any other calculations for the annualization adjustment?
- A. Yes. The last step performed was to adjust for active customers as of September 2024. Empire calculated an annualized residential customer charge count of 141,758; however, in its response to DR 410, Empire provided the following customer charge counts.

	1023	1123	1232	124	224	324	424	524	624	724	824	924
NS RG-Residential	562	560	530	550	528	520	663	611	631	655	669	668
TC RG-Residential	140,333	140,513	140,414	141,476	142,119	141,968	142,163	142,011	142,279	142,862	142,560	142,808
TP RG-Residential	77	76	76	75	74	74	75	75	74	76	74	74
Total	140,972	141,149	141,020	142,101	142,721	142,562	142,901	142,697	142,984	143,593	143,303	143,550

With additional counts through the true-up cut off.

	1024	1124	1224	125	225	325
NS RG-Residential	714	680	715	735	721	691
TC RG-Residential	142,986	142,434	143,119	143,459	143,364	142,755
TP RG-Residential	75	76	74	74	73	73
Total	143,775	143,190	143,908	144,268	144,158	143,519

Empire's reconciled with active customers counts of 705 for NS-RG, 140,979 for time choice residential ("TC-RG"), and 74 for time choice plus residential ("TP-RG") is the starting point that Empire used to adjust for weather normalization, load growth, and 365-day adjustments. Based on the information in the tables above, using these customer counts may result in artificially low billing determinants for this case.

- 1 Q. Does Staff agree with using the September 2024 active customers counts 2 for growth?
 - A. No. Staff recommends that February 2025 counts be utilized to determine the customer growth adjustment unless Empire can provide a more accurate count outside of the billing issues it has experienced.
 - Q. What impact does the growth factor have on the rates that will result from this case?
 - A. If the growth factor is artificially low, the calculated rates that result from this rate case will be artificially high.
 - Q. How did Staff develop its growth factors?
 - A. Staff used the billing determinants and manual adjustments that Empire provided. Staff developed a monthly growth factor for each rate code by calculating the monthly use per customer and applying the February 2025 bill counts provided by Empire. Empire and Staff developed the growth factor by using the same formula. Staff is not opposed to using active counts for developing the growth factor.

Staff assumes Empire will update its growth adjustment to match Staff's time period. However, Staff does not know if Empire will use active accounts or billed accounts. Staff is not opposed to having discussion with Empire about applying active accounts to calculate the growth factor in future rate cases. Staff will review Empire's true-up testimony and workpapers and will respond at the time of true-up rebuttal.

 $^{^{7}}$ The growth factor is developed by dividing the "new" customer charge count by the "old" customer charge count. The factor is then applied to kWh and kW.

CONCLUSION

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- Q. What is Staff's recommendation?
- A. Staff recommends that the Commission accept Staff's manual adjustment and growth adjustment that reflects the impact in change of customer levels through February 2025.
 - Q. Does this conclude your rebuttal testimony?
- 6 A. Yes it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of the Request of The Empire District Electric Company d/b/a Liberty for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in Its Missouri Service Area)	Case No. ER-2024-0261
AFFIDAVIT	OF KIM COX
STATE OF MISSOURI) COUNTY OF COLE)	
	declares that she is of sound mind and lawful age; stimony of Kim Cox; and that the same is true and f.
Further the Affiant sayeth not. KIM	Liva Cox
JUI	RAT
Subscribed and sworn before me, a duly corthe County of Cole, State of Missouri, at my of of August 2025.	astituted and authorized Notary Public, in and for fice in Jefferson City, on this/3 H day
D. SUZIE MANKIN Notary Public - Notary Seal State of Missouri Commissioned for Cole County My Commission Expires: April 04, 2029 Commission Number: 12412070	Sussellankin) ry Publid