SOUTHERN INDIANA GAS AND ELECTRIC COMPANY
d/b/a CENTERPOINT ENERGY INDIANA SOUTH
(CEI SOUTH)

CAUSE NO. 45894

REBUTTAL TESTIMONY
OF
JASON D. DE STIGTER
DIRECTOR, UTILITY INVESTMENT PLANNING, 1898 & CO.

ON

INVESTMENTS WITHOUT QUANTIFIED BENEFITS AND ESCALATION FACTOR

SPONSORING PETITIONER'S EXHIBIT NO. 3-R

REBUTTAL TESTIMONY OF JASON D. DE STIGTER

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Jason D. De Stigter, and my business address is 9400 Ward Parkway, Kansas City, Missouri 64114.

Q. BY WHOM ARE YOU EMPLOYED?

A. I am employed by 1898 & Co. as a Director and lead the Utility Investment Planning team as part of 1898 & Co.'s Energy and Utilities Consulting Practice.

Q. ON WHOSE BEHALF ARE YOU SUBMITTING THIS REBUTTAL TESTIMONY?

A. I am submitting testimony on behalf of Southern Indiana Gas and Electric Company d/b/a CenterPoint Energy Indiana South ("Petitioner", "CEI South", or "Company").

Q. ARE YOU THE SAME JASON D. DE STIGTER WHO PRE-FILED DIRECT TESTIMONY IN THIS CAUSE?

A. Yes.

II. SUMMARY OF PRESENTATION

Q. PLEASE DESCRIBE THE SCOPE AND PURPOSE OF YOUR REBUTTAL TESTIMONY.

A. I summarize and respond to various arguments raised within the direct testimony of the Indiana Office of Utility Consumer Counselor ("OUCC"). Specifically, I address concerns raised by Witness Krieger as it relates to investments without quantified benefits and by Witness Leader as it relates to Plan escalation.

I have not attempted to respond to every argument made by the OUCC and Citizens Action Coalition of Indiana, Inc. ("CAC"). The fact that I may not have responded to any specific argument or statement made by the parties' witnesses, does not indicate my agreement with that argument or statement.

Q. ARE YOU SPONSORING ANY ATTACHMENTS IN SUPPORT OF YOUR TESTIMONY?

A. No.

III. INVESTMENTS WITHOUT QUANTIFIED BENEFITS

Q. WITNESS KRIEGER TAKES EXCEPTION TO INVESTMENTS THAT DO NOT INCLUDE A QUANTIFIED BUSINESS CASE.[1] WHAT PLAN INVESTMENTS WERE BASED ON A QUALITATIVE BUSINESS CASE?

A. Approximately $85.3 million, or 18.8 percent, of the Plan included a qualitative business case. For these investments, a quantified benefits evaluation was not performed. Table JDD-7 (CEI South Identified Investments Qualitative Benefit Drivers) included on p. 33 of my direct testimony includes a summary of these investments. For ease of reference, I've provided that table below, reproduced here as **Table JDD-R1**. The table includes both the investment level as well as the Program's (and by extension the projects within the program) alignment to the TDSIC Plan Objectives. It should be noted these Plan objectives have significant alignment to the TDSIC purposes requirements set out in the definition of eligible improvements in the TDSIC statute (IC § 8-1-39-2).

Table JDD-R1: CEI South Identified Investments Qualitative Benefit Drivers

TDSIC Program	Plan Investment Nominal $Millions	CEI South Plan Objective			
		Deliver Service Safely	Maintain Reliability and Resiliency	Manage Asset Life-Cycle	Modernizing the Grid
Transmission Line Rebuild	$6.2	■			
Substation Rebuild	$13.4	■			
Distribution 12kV Circuit Rebuild	$6.7	■			
Distribution Automation		N/A	N/A	N/A	N/A
Distribution Underground Rebuild		N/A	N/A	N/A	N/A
Wood Pole Replacements	$45.0	■	■	■	□
Substation Physical Security	$14.0	■			

■ **Non-quantified Direct Alignment** □ **Indirect / Supporting Alignment**

Q. WITNESS KRIEGER STATES THAT CEI SOUTH DOES NOT PROVIDE A REASON AS TO WHY THE STAKEHOLDER PROJECTS WERE NOT IDENTIFIED USING THE DATA INTENSIVE PROCESS.[2] PLEASE RESPOND.

A. Electric utilities identify investments utilizing many approaches. There is not a one-size-fits-all approach to identifying system issues and the need for investment. Many tools and approaches need to be leveraged. This is no different for CEI South's TDSIC Filing. As

[1] *See* Testimony of OUCC Witness Krieger, p. 8, line 17 through p. 11, line 10.
[2] See Testimony of OUCC Witness Krieger, p. 8, line 17 through p. 9, line 2.

noted in my direct testimony and by Witness Krieger, approximately 81.2 percent of the Plan was identified and justified utilizing 1898 & Co.'s AssetLens Analytics Engine. The following provides a summary of the general approach to identify investments for the 18.8 percent of the Plan:

- Wood Pole Replacements ($45.0 million of the $85.3 million or 9.9 percent of the Plan) – these investments will be identified based on annual inspections.
- Substation Physical Security ($14.0 million of the $85.3 million or 3.1 percent of the Plan) – Petitioner's Exhibit No. 5, the Direct Testimony of Witness Jason Christopher Freeman describes how these investments were identified.
- Capacity Constraints and Power Quality ($26.3 million of the $85.3 million or 5.8 percent of the Plan) – these investments were identified by CEI South system planners utilizing electrical load data inside sophisticated load flow models to identify system capacity and power quality issues. The system planning process identified these system capacity issues for the following programs:
  - Transmission Line Rebuild
  - Substation Rebuild
  - Distribution 12kV Circuit Rebuild

  For these investments, CEI South's own load flow models and processes were used to identify system needs.

In summary, the investment needs identification process for CEI South's TDSIC Plan utilized a wide range of approaches. Each of these approaches is appropriate given the system issues that they identify.

Q. WITNESS KRIEGER ALSO STATES THAT CEI SOUTH DID NOT EXPLAIN WHY THE PROJECTS DO NOT HAVE QUANTIFIED BENEFITS.[3] PLEASE RESPOND.

A. It is not necessary to perform a quantified benefits assessment for all utility investments. 1898 & Co. and CEI South evaluated all the projects and program types and identified the most appropriate benefits assessment to perform. As described in my direct testimony, the investments identified utilizing the 1898 & Co. AssetLens Analytics Engine all include a quantitative and qualitative business case. The quantitative business case alone shows the benefits are in excess of cost. The qualitative factors, mainly safety, bolster the

[3] See Testimony of OUCC Witness Krieger, p. 9 , lines 3-7.

business case. As it relates to the investments identified by CEI South System Stakeholders, it was determined that they did not need a quantified business case since their primary drivers are safety and to meet CEI South's duty to serve obligations with respect to system capacity issues. If electrical capacity constraints continue without being mitigated, infrastructure will become overloaded and burn. This causes outages for customers and more importantly can expose the general public to failed infrastructure, a safety issue. These drivers align to the TDSIC statute purpose. The following provides additional details for each of these programs:

- Wood Pole Replacements – the primary investment driver for this program is safety, reliability, and avoided cost. Even if there were no reliability or avoided cost benefits, the safety benefits alone fully justify this program. This program identifies, through inspection, defects in wood poles. If these poles are not replaced, there is a high likelihood they will fail in the near future exposing the general public to safety risks. Given the high safety issues, which is a key investment purpose outlined by the TDSIC statute, the incremental safety benefits alone justify this cost.
- Substation Physical Security – similar to the wood pole replacement program, the primary benefit for these investments is safety risk mitigation. Witness Freeman provides additional context on the safety risks these investments would mitigate.
- Transmission Line Rebuild, Substation Rebuild, and Distribution 12kV Circuit Rebuild – the primary benefit for these investments is to meet CEI South's duty to serve obligation. As such, a quantified business case is not appropriate.

Attachment JDD-2 to my direct testimony includes additional commentary on the benefit for each of the programs. Given that their benefits are mainly safety and duty to serve, there is no need to perform a quantified business case. Additionally, these qualitative drivers are directly linked to the investment purposes, mainly safety and economic development, outlined in the TDSIC statute. Based on this, the incremental qualitative benefits of safety and duty to serve/economic development justify the cost. I should also note that the Plan, as a whole, has quantified benefits that justify the cost, which is what the TDSIC statute requires the Commission to find. As shown in my direct testimony, the Plan's quantified benefit to cost ratio is 1.7.[4] In other words, the quantified benefits are in

[4] See Direct Testimony of CEI South Witness Jason De Stigter, p. 5, lines 20-21.

excess of total Plan cost by a factor of 1.7. Given the qualitative factors of safety and duty to serve, this value is conservative for the Plan.

IV. PLAN COST ESCALATION

Q. WHAT ESCALATION RATE DID CEI SOUTH ASSUME FOR THE PLAN?

A. Four percent. 1898 & Co. supported CEI South in establishing the expected escalation rate for the Plan.

Q. WHAT INFLATION RATE DOES WITNESS LEADER RECOMMEND BE UTILIZED?

A. Three percent.[5] Witness Leader bases this recommendation on the last 12 months of inflation from July 2022 through July 2023 per the Bureau of Labor Statics which was approximately 3.0 percent.[6] Witness Leader also suggests that the Federal Reserve will continue to take action to decrease inflation below these numbers.

Q. WHAT CONCERN DO YOU HAVE WITH UTILIZING WITNESS LEADER'S RECOMMENDATION OF 3 PERCENT?

A. My main concern with Witness Leader's recommendation is that it is based on the average inflation of the entire United States economy. The 3 percent value is a composite of many economic sectors, and it may not represent the expected inflation for an electric utility in the North Central part of the United States. One key issue, as it relates to the entire electric industry, is equipment supply chain constraints and lead times to procure equipment. The current expectation across the entire electric industry is that these supply chain constraints will not ease for the foreseeable future. This will put upward pressure on pricing. It is also important to note that labor markets are different across regions and that the overall increase in utility investment to manage aging infrastructure is also putting upward pressure on labor rates. In establishing the escalation rate for a capital plan, it is important to factor in these differences.

Q. WHAT DATA SOURCE DID 1898 & CO. UTILIZE TO ESTIMATE FUTURE PLAN ESCALATION?

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[5] See Testimony of OUCC Witness Leader, p. 8, line 13 through p. 9, line 2.

[6] The full context from the article sited by Leader states: "Over the year ended June 2023, consumer prices increased 3.0 percent, after increasing 4.0 percent over the year ended in May 2023. The June 2023 increase was the smallest 12-month increase since March 2021. A year earlier, in June 2022, the 12-month increase in overall prices was 9.1 percent, and had been 7.0 percent or higher in the preceding 6 months."

A. 1898 & Co. utilized the Handy Whitman Index to aid in developing the Plan's escalation rate. This index is based on FERC accounting data from electric utilities, and it reports the inflation increase at the FERC account level for various regions. 1898 & Co. and Burns & McDonnell have purchased this information. For CEI South, we utilized the Transmission (FERC accts 353-358) and Distribution (FERC accts 362-373) indexes for the North Central Region.

Q. WHAT DOES THIS DATA SOURCE SHOW FOR THE HISTORICAL ESCALATION OF TRANSMISSION AND DISTRIBUTION INVESTMENT FOR THE REGION CEI SOUTH IS LOCATED?

A. Figure JDD-R1 shows the escalation index values from the Handy-Whitman data source going back to 1950. It should be noted that the index reports on a January-to-January basis. The figure shows the escalation values on a 5-year rolling average basis to align to the 5-year Plan. For context, I have also included the 5-year rolling average inflation for the US economy. This data is from the Bureau of Labor Statistics.

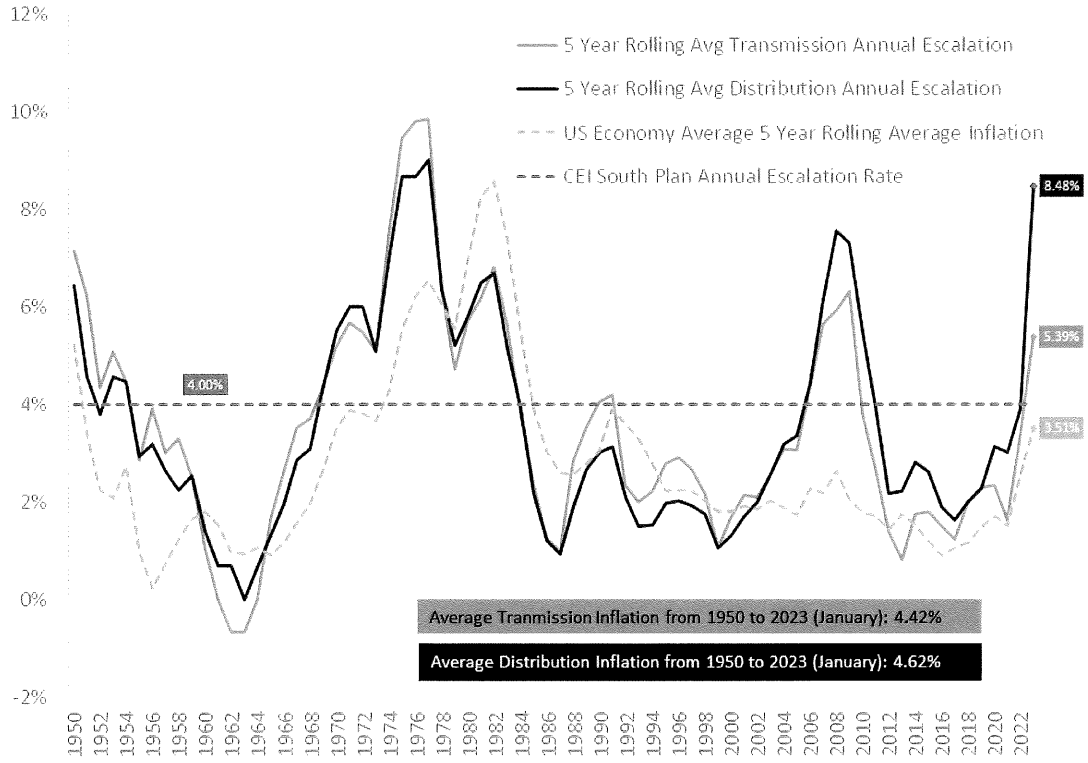


Figure JDD-R1: Handy-Whitman 5-Year Rolling Average Historical Escalation

Q. WHAT CONCLUSIONS CAN BE DRAWN FROM THIS INFORMATION?

A. Analysis of Figure JDD-R1 shows:

1. The most recent annual escalation for transmission and distribution is 5.39 percent and 8.48 percent, respectively, well above the 4 percent value within the Plan. This was the information available at the time of establishing the Plan's escalation rate (Q1 of 2023).
2. The annual average escalation over the 74-year time horizon is 4.42 percent for transmission and 4.62 percent for distribution which is above the 4 percent value within the Plan.
3. Since the early 2000s, with the exception of 1 year, transmission and distribution escalation has exceeded the inflation of the US Economy. In evaluating the period of 2002 through 2014, while the US economy experienced relatively low levels of inflation, the transmission and distribution escalation for the North Central Region, the region in which CEI South is located, has experienced significantly higher levels. This historical record shows that the types of investments CEI South is making can have significantly higher levels of inflation than the general economy.

Based on the above analysis of the Handy-Whiteman index, 1898 & Co. and CEI South established a 4 percent escalation rate for the Plan. Based on the analysis above, this value could be considered conservative. In summary, given the recently high inflationary environment, the continued supply chain constraints, expected upward pressure on labor rates, and the historical record showing the relatively frequent basis for this level of inflation, it is reasonable to assume the next 5 years will be at or above 4 percent escalation for the Plan.

V. CONCLUSION

Q. PLEASE SUMMARIZE YOUR REBUTTAL POSITION.

A. My rebuttal testimony includes two main conclusions. First, a quantified business case is not needed nor fully appropriate to meet the requirements of incremental benefit being in excess of cost. For the 18.8 percent of the system with a qualitative business case, the qualitative factors of safety and duty to serve / economic development, two of the purposes incorporated into the definition of eligible improvements in the TDSIC statute, are more than sufficient to meet this requirement. Quantifying these factors is not needed, the

qualitative alignment is sufficient. Second, the recommended 3 percent rate by Witness Leader is based on the average US economy inflation and does not represent the particular drivers of inflation for CEI South's TDSIC Plan. A 4 percent escalation rate for the Plan is reasonable given the historical escalation seen for transmission and distribution investments in the North Central region of the country.

Q. DOES THIS CONCLUDE YOUR PREPARED REBUTTAL TESTIMONY?

A. Yes.

VERIFICATION

I affirm under penalties for perjury that the foregoing representations are true to the best of my knowledge, information, and belief.

Jason D. De Stigter
Director, 1898 & Co.

28 Aug 2023
Date

Cause No. 45894
CenterPoint Energy Indiana South
Petitioner's Exhibit 3-R (Public)
Workpaper JDD-R1

CPI for All Urban Consumers (CPI-U)
Original Data Value

Series Id: CUUR0000SA0
Not Seasonally Adjusted
Series Title: All items in U.S. city average, all urban consumers, not
Area: U.S. city average
Item: All items
Base Period: 1982-84=100
Years: 1913 to 2023

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov
1950	23.5	23.5	23.6	23.6	23.7	23.8	24.1	24.3	24.4	24.6	24.7
1951	25.4	25.7	25.8	25.8	25.9	25.9	25.9	25.9	26.1	26.2	26.4
1952	26.5	26.3	26.3	26.4	26.4	26.5	26.7	26.7	26.7	26.7	26.7
1953	26.6	26.5	26.6	26.6	26.7	26.8	26.8	26.9	26.9	27.0	26.9
1954	26.9	26.9	26.9	26.8	26.9	26.9	26.9	26.9	26.8	26.8	26.8
1955	26.7	26.7	26.7	26.7	26.7	26.7	26.8	26.8	26.9	26.9	26.9
1956	26.8	26.8	26.8	26.9	27.0	27.2	27.4	27.3	27.4	27.5	27.5
1957	27.6	27.7	27.8	27.9	28.0	28.1	28.3	28.3	28.3	28.3	28.4
1958	28.6	28.6	28.8	28.9	28.9	28.9	29.0	28.9	28.9	28.9	29.0
1959	29.0	28.9	28.9	29.0	29.0	29.1	29.2	29.2	29.3	29.4	29.4
1960	29.3	29.4	29.4	29.5	29.5	29.6	29.6	29.6	29.6	29.8	29.8
1961	29.8	29.8	29.8	29.8	29.8	29.8	30.0	29.9	30.0	30.0	30.0
1962	30.0	30.1	30.1	30.2	30.2	30.2	30.3	30.3	30.4	30.4	30.4
1963	30.4	30.4	30.5	30.5	30.5	30.6	30.7	30.7	30.7	30.8	30.8
1964	30.9	30.9	30.9	30.9	30.9	31.0	31.1	31.0	31.1	31.1	31.2
1965	31.2	31.2	31.3	31.4	31.4	31.6	31.6	31.6	31.6	31.7	31.7
1966	31.8	32.0	32.1	32.3	32.3	32.4	32.5	32.7	32.7	32.9	32.9
1967	32.9	32.9	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8
1968	34.1	34.2	34.3	34.4	34.5	34.7	34.9	35.0	35.1	35.3	35.4

1969	35.6	35.8	36.1	36.3	36.4	36.6	36.8	37.0	37.1	37.3	37.5
1970	37.8	38.0	38.2	38.5	38.6	38.8	39.0	39.0	39.2	39.4	39.6
1971	39.8	39.9	40.0	40.1	40.3	40.6	40.7	40.8	40.8	40.9	40.9
1972	41.1	41.3	41.4	41.5	41.6	41.7	41.9	42.0	42.1	42.3	42.4
1973	42.6	42.9	43.3	43.6	43.9	44.2	44.3	45.1	45.2	45.6	45.9
1974	46.6	47.2	47.8	48.0	48.6	49.0	49.4	50.0	50.6	51.1	51.5
1975	52.1	52.5	52.7	52.9	53.2	53.6	54.2	54.3	54.6	54.9	55.3
1976	55.6	55.8	55.9	56.1	56.5	56.8	57.1	57.4	57.6	57.9	58.0
1977	58.5	59.1	59.5	60.0	60.3	60.7	61.0	61.2	61.4	61.6	61.9
1978	62.5	62.9	63.4	63.9	64.5	65.2	65.7	66.0	66.5	67.1	67.4
1979	68.3	69.1	69.8	70.6	71.5	72.3	73.1	73.8	74.6	75.2	75.9
1980	77.8	78.9	80.1	81.0	81.8	82.7	82.7	83.3	84.0	84.8	85.5
1981	87.0	87.9	88.5	89.1	89.8	90.6	91.6	92.3	93.2	93.4	93.7
1982	94.3	94.6	94.5	94.9	95.8	97.0	97.5	97.7	97.9	98.2	98.0
1983	97.8	97.9	97.9	98.6	99.2	99.5	99.9	100.2	100.7	101.0	101.2
1984	101.9	102.4	102.6	103.1	103.4	103.7	104.1	104.5	105.0	105.3	105.3
1985	105.5	106.0	106.4	106.9	107.3	107.6	107.8	108.0	108.3	108.7	109.0
1986	109.6	109.3	108.8	108.6	108.9	109.5	109.5	109.7	110.2	110.3	110.4
1987	111.2	111.6	112.1	112.7	113.1	113.5	113.8	114.4	115.0	115.3	115.4
1988	115.7	116.0	116.5	117.1	117.5	118.0	118.5	119.0	119.8	120.2	120.3
1989	121.1	121.6	122.3	123.1	123.8	124.1	124.4	124.6	125.0	125.6	125.9
1990	127.4	128.0	128.7	128.9	129.2	129.9	130.4	131.6	132.7	133.5	133.8
1991	134.6	134.8	135.0	135.2	135.6	136.0	136.2	136.6	137.2	137.4	137.8
1992	138.1	138.6	139.3	139.5	139.7	140.2	140.5	140.9	141.3	141.8	142.0
1993	142.6	143.1	143.6	144.0	144.2	144.4	144.4	144.8	145.1	145.7	145.8
1994	146.2	146.7	147.2	147.4	147.5	148.0	148.4	149.0	149.4	149.5	149.7
1995	150.3	150.9	151.4	151.9	152.2	152.5	152.5	152.9	153.2	153.7	153.6
1996	154.4	154.9	155.7	156.3	156.6	156.7	157.0	157.3	157.8	158.3	158.6
1997	159.1	159.6	160.0	160.2	160.1	160.3	160.5	160.8	161.2	161.6	161.5
1998	161.6	161.9	162.2	162.5	162.8	163.0	163.2	163.4	163.6	164.0	164.0
1999	164.3	164.5	165.0	166.2	166.2	166.2	166.7	167.1	167.9	168.2	168.3
2000	168.8	169.8	171.2	171.3	171.5	172.4	172.8	172.8	173.7	174.0	174.1
2001	175.1	175.8	176.2	176.9	177.7	178.0	177.5	177.5	178.3	177.7	177.4
2002	177.1	177.8	178.8	179.8	179.8	179.9	180.1	180.7	181.0	181.3	181.3

2003	181.7	183.1	184.2	183.8	183.5	183.7	183.9	184.6	185.2	185.0	184.5
2004	185.2	186.2	187.4	188.0	189.1	189.7	189.4	189.5	189.9	190.9	191.0
2005	190.7	191.8	193.3	194.6	194.4	194.5	195.4	196.4	198.8	199.2	197.6
2006	198.3	198.7	199.8	201.5	202.5	202.9	203.5	203.9	202.9	201.8	201.5
2007	202.416	203.499	205.352	206.686	207.949	208.352	208.299	207.917	208.490	208.936	210.177
2008	211.080	211.693	213.528	214.823	216.632	218.815	219.964	219.086	218.783	216.573	212.425
2009	211.143	212.193	212.709	213.240	213.856	215.693	215.351	215.834	215.969	216.177	216.330
2010	216.687	216.741	217.631	218.009	218.178	217.965	218.011	218.312	218.439	218.711	218.803
2011	220.223	221.309	223.467	224.906	225.964	225.722	225.922	226.545	226.889	226.421	226.230
2012	226.665	227.663	229.392	230.085	229.815	229.478	229.104	230.379	231.407	231.317	230.221
2013	230.280	232.166	232.773	232.531	232.945	233.504	233.596	233.877	234.149	233.546	233.069
2014	233.916	234.781	236.293	237.072	237.900	238.343	238.250	237.852	238.031	237.433	236.151
2015	233.707	234.722	236.119	236.599	237.805	238.638	238.654	238.316	237.945	237.838	237.336
2016	236.916	237.111	238.132	239.261	240.229	241.018	240.628	240.849	241.428	241.729	241.353
2017	242.839	243.603	243.801	244.524	244.733	244.955	244.786	245.519	246.819	246.663	246.669
2018	247.867	248.991	249.554	250.546	251.588	251.989	252.006	252.146	252.439	252.885	252.038
2019	251.712	252.776	254.202	255.548	256.092	256.143	256.571	256.558	256.759	257.346	257.208
2020	257.971	258.678	258.115	256.389	256.394	257.797	259.101	259.918	260.280	260.388	260.229
2021	261.582	263.014	264.877	267.054	269.195	271.696	273.003	273.567	274.310	276.589	277.948
2022	281.148	283.716	287.504	289.109	292.296	296.311	296.276	296.171	296.808	298.012	297.711
2023	299.170	300.840	301.836	303.363	304.127	305.109	305.691				

Dec	HALF1	HALF2	Analysis by 1898 & Co. Year Over Year Inflation	Analysis by 1898 & Co. 5-year Rolling Average Annual Inflation
25.0			-2.08%	5.24%
26.5			8.09%	3.39%
26.7			4.33%	2.26%
26.9			0.38%	2.08%
26.7			1.13%	2.74%
26.8			-0.74%	1.00%
27.6			0.37%	0.23%
28.4			2.99%	0.74%
28.9			3.62%	1.23%
29.4			1.40%	1.67%
29.8			1.03%	1.80%
30.0			1.71%	1.55%
30.4			0.67%	0.96%
30.9			1.33%	0.95%
31.2			1.64%	1.07%
31.8			0.97%	0.92%
32.9			1.92%	1.17%
33.9			3.46%	1.59%
35.5			3.65%	1.99%

37.7			4.40%	2.67%
39.8			6.18%	3.52%
41.1			5.29%	3.88%
42.5			3.27%	3.80%
46.2			3.65%	3.66%
51.9			9.39%	4.27%
55.5			11.80%	5.53%
58.2			6.72%	6.23%
62.1			5.22%	6.55%
67.7			6.84%	6.05%
76.7			9.28%	5.56%
86.3			13.91%	6.95%
94.0			11.83%	8.26%
97.6			8.39%	8.57%
101.3			3.71%	7.44%
105.3	102.9	104.9	4.19%	5.55%
109.3	106.6	108.5	3.53%	3.93%
110.5	109.1	110.1	3.89%	3.05%
115.4	112.4	114.9	1.46%	2.60%
120.5	116.8	119.7	4.05%	2.57%
126.1	122.7	125.3	4.67%	2.80%
133.8	128.7	132.6	5.20%	3.06%
137.9	135.2	137.2	5.65%	3.89%
141.9	139.2	141.4	2.60%	3.60%
145.8	143.7	145.3	3.26%	3.32%
149.7	147.2	149.3	2.52%	2.79%
153.5	151.5	153.2	2.80%	2.23%
158.6	155.8	157.9	2.73%	2.26%
161.3	159.9	161.2	3.04%	2.21%
163.9	162.3	163.7	1.57%	2.02%
168.3	165.4	167.8	1.67%	1.80%
174.0	170.8	173.6	2.74%	1.80%
176.7	176.6	177.5	3.73%	1.93%
180.9	178.9	180.9	1.14%	1.85%

184.3	183.3	184.6	2.60%	2.03%
190.3	187.6	190.2	1.93%	1.87%
196.8	193.2	197.4	2.97%	1.72%
201.8	200.6	202.6	3.99%	2.29%
210.036	205.709	208.976	2.08%	2.18%
210.228	214.429	216.177	4.28%	2.65%
215.949	213.139	215.935	0.03%	2.06%
219.179	217.535	218.576	2.63%	1.79%
225.672	223.598	226.280	1.63%	1.70%
229.601	228.850	230.338	2.93%	1.43%
233.049	232.366	233.548	1.59%	1.75%
234.812	236.384	237.088	1.58%	1.54%
236.525	236.265	237.769	-0.09%	1.20%
241.432	238.778	241.237	1.37%	0.89%
246.524	244.076	246.163	2.50%	1.07%
251.233	250.089	252.125	2.07%	1.17%
256.974	254.412	256.903	1.55%	1.50%
260.474	257.557	260.065	2.49%	1.72%
278.802	266.236	275.703	1.40%	1.50%
296.797	288.347	296.963	7.48%	2.55%
			6.41%	3.51%

Handy-Whitman Transmission and Distribution Data

Year	Transmission[1,2,3]	Distribution[1,2,4]	Transmission Annual Escalation	Distribution Annual Escalation	5 Year Rolling Avg Transmission Annual Escalation
1945					
1946					
1947					
1948					
1949					
1950					7.17%
1951					6.23%
1952					4.34%
1953					5.09%
1954					4.46%
1955					2.87%
1956					3.93%
1957					3.01%
1958					3.30%
1959					2.51%
1960					1.03%
1961					0.00%
1962					-0.68%
1963					-0.68%
1964					0.00%
1965					1.67%
1966					2.62%
1967					3.53%
1968					3.71%
1969					4.36%
1970					5.19%
1971					5.69%
1972					5.48%
1973					5.09%
1974					7.49%
1975					9.46%
1976					9.80%
1977					9.86%
1978					6.35%
1979					4.71%
1980					5.71%
1981					6.19%

1982	6.83%
1983	3.66%
1984	3.84%
1985	2.38%
1986	1.27%
1987	0.99%
1988	2.85%
1989	3.53%
1990	4.05%
1991	4.21%
1992	2.36%
1993	1.99%
1994	2.23%
1995	2.78%
1996	2.93%
1997	2.67%
1998	2.17%
1999	1.06%
2000	1.68%
2001	2.16%
2002	2.11%
2003	2.57%
2004	3.10%
2005	3.07%
2006	4.34%
2007	5.66%
2008	5.93%
2009	6.32%
2010	3.80%
2011	2.67%
2012	1.39%
2013	0.83%
2014	1.75%
2015	1.80%
2016	1.50%
2017	1.23%
2018	2.00%
2019	2.30%
2020	2.36%
2021	1.64%
2022	3.37%
2023	5.39%

Average Tranmission Inflation from 1950 to 2023 (January)	4.42%
Average Distribution Inflation from 1950 to 2023 (January)	

Source: Handy-Whitman Index Tables

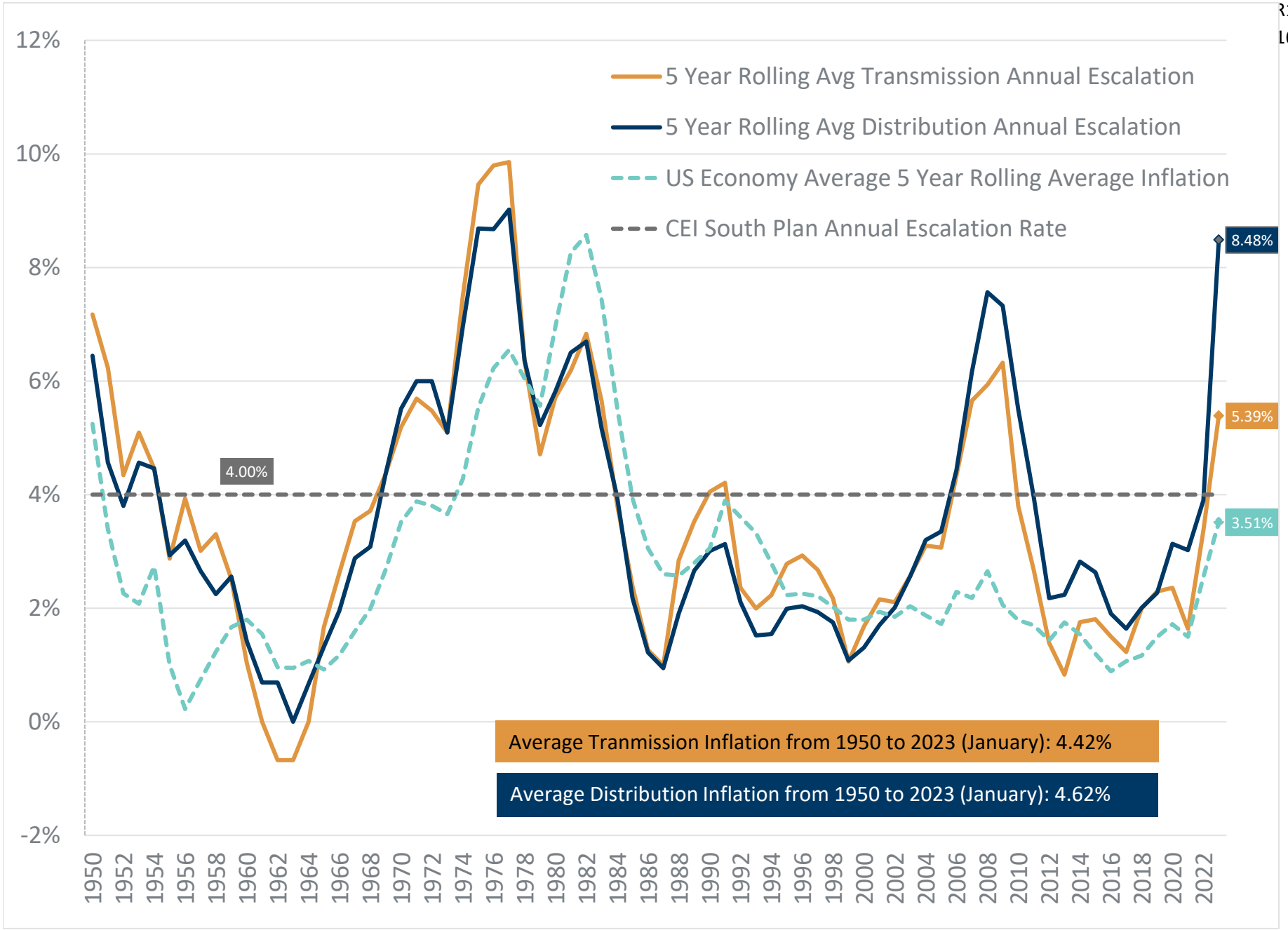
1. North Central Regional Data
2. All indcies start and end with January 1st of each year
3. Transmission data covers Ferc 353-358
4. Distribution data covers Ferc 362-373

5 Year Rolling Avg Distribution Annual Escalation	US Economy Average 5 Year Rolling Average Inflation	CEI South Plan Annual Escalation Rate
6.45%	5.24%	4%
4.56%	3.39%	4%
3.80%	2.26%	4%
4.56%	2.08%	4%
4.46%	2.74%	4%
2.93%	1.00%	4%
3.19%	0.23%	4%
2.66%	0.74%	4%
2.25%	1.23%	4%
2.56%	1.67%	4%
1.41%	1.80%	4%
0.69%	1.55%	4%
0.69%	0.96%	4%
0.00%	0.95%	4%
0.67%	1.07%	4%
1.32%	0.92%	4%
1.96%	1.17%	4%
2.88%	1.59%	4%
3.08%	1.99%	4%
4.36%	2.67%	4%
5.51%	3.52%	4%
6.00%	3.88%	4%
6.00%	3.80%	4%
5.09%	3.66%	4%
6.96%	4.27%	4%
8.68%	5.53%	4%
8.67%	6.23%	4%
9.02%	6.55%	4%
6.36%	6.05%	4%
5.22%	5.56%	4%
5.81%	6.95%	4%
6.50%	8.26%	4%

6.70%	8.57%	4%
5.17%	7.44%	4%
3.97%	5.55%	4%
2.18%	3.93%	4%
1.22%	3.05%	4%
0.94%	2.60%	4%
1.91%	2.57%	4%
2.66%	2.80%	4%
3.01%	3.06%	4%
3.13%	3.89%	4%
2.11%	3.60%	4%
1.52%	3.32%	4%
1.55%	2.79%	4%
1.99%	2.23%	4%
2.04%	2.26%	4%
1.93%	2.21%	4%
1.75%	2.02%	4%
1.08%	1.80%	4%
1.31%	1.80%	4%
1.70%	1.93%	4%
2.01%	1.85%	4%
2.56%	2.03%	4%
3.20%	1.87%	4%
3.35%	1.72%	4%
4.44%	2.29%	4%
6.16%	2.18%	4%
7.56%	2.65%	4%
7.33%	2.06%	4%
5.50%	1.79%	4%
3.96%	1.70%	4%
2.18%	1.43%	4%
2.24%	1.75%	4%
2.82%	1.54%	4%
2.63%	1.20%	4%
1.90%	0.89%	4%
1.64%	1.07%	4%
2.01%	1.17%	4%
2.27%	1.50%	4%
3.14%	1.72%	4%
3.02%	1.50%	4%
3.90%	2.55%	4%
8.48%	3.51%	4%

	Average Tranmission Inflation from 1950 to 2023 (Januar
4.62%	Average Distribution Inflation from 1950 to 2023 (Januar

y): 4.42%
y): 4.62%


12%
10%
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5 Year Rolling Avg Transmission Annual Escalation
5 Year Rolling Avg Distribution Annual Escalation
US Economy Average 5 Year Rolling Average Inflation
CEI South Plan Annual Escalation Rate
8.48%
5.39%
3.51%
4.00%
Average Tranmission Inflation from 1950 to 2023 (January): 4.42%
Average Distribution Inflation from 1950 to 2023 (January): 4.62%
1950
1952
1954
1956
1958
1960
1962
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2018
2020
2022