

Exhibit No.:  
Issue: Wolf Creek Funding Levels  
Witness: Gregg N. Clizer  
Type of Exhibit: Direct Testimony  
Sponsoring Party: Kansas City Power & Light Company  
Case No.: ER-2010-\_\_\_\_  
Date Testimony Prepared: June 4, 2010

**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO.: ER-2010-\_\_\_\_**

**DIRECT TESTIMONY**

**OF**

**GREGG N. CLIZER**

**ON BEHALF OF**

**KANSAS CITY POWER & LIGHT COMPANY**

**Kansas City, Missouri  
June 2010**

**DIRECT TESTIMONY**

**OF**

**GREGG N. CLIZER**

**Case No. ER-2010-\_\_\_\_\_**

1 **Q: Please state your name and business address.**

2 A: My name is Gregg N. Clizer. My business address is 1200 Main Street, Kansas City,  
3 Missouri 64105.

4 **Q: By whom and in what capacity are you employed?**

5 A: I am employed by Kansas City Power & Light Company (“KCP&L” or the “Company”)  
6 as Senior Manager, Corporate Finance.

7 **Q: What are your responsibilities?**

8 A: My responsibilities include the development, analysis, and implementation of financing  
9 plans and a capital structure that maintain continuous access to capital at the lowest  
10 overall cost.

11 **Q: Please describe your education, experience and employment history.**

12 A: I graduated from the University of Missouri-Columbia in 1981 with a Bachelor of  
13 Science degree in Industrial Engineering. I received a Master of Business Administration  
14 degree from the University of Missouri-Kansas City in 1987. I am a registered  
15 Professional Engineer in the State of Missouri. I have been employed by KCP&L or its  
16 affiliates since 1981 in various roles in the areas of Corporate Planning, Corporate  
17 Modeling, Business Development, Financial Planning and Corporate Budgets as well as  
18 my current role in Corporate Finance.

1 **Q: Have you previously testified in a proceeding at the Missouri Public Service**  
2 **Commission (“MPSC” or “Commission”) or before any other utility regulatory**  
3 **agency?**

4 A: I have previously provided written testimony to the MPSC. I have also provided  
5 testimony to the Kansas Corporation Commission (“KCC”).

6 **Q: What is the purpose of your testimony?**

7 A: The purpose of my testimony is to recommend a funding level for the Missouri  
8 jurisdictional component of KCP&L’s trust fund for the decommissioning of the Wolf  
9 Creek Nuclear Generating Station (“Wolf Creek”).

10 **Q: Please summarize your recommendation regarding the appropriate funding level**  
11 **for the Missouri jurisdictional component of KCP&L’s trust fund for the**  
12 **decommissioning of Wolf Creek.**

13 A: I am recommending that the annual funding level for the Missouri jurisdictional  
14 component of KCP&L’s trust fund for the decommissioning of Wolf Creek be set at  
15 \$1,158,417 as shown in attached Schedule GNC2010-1. This funding level would begin  
16 after rates in this case become effective and would continue at the same level through the  
17 first quarter of 2045 unless the funding level is changed in a future proceeding before the  
18 MPSC.

19 **Q: How does your recommended funding level compare to the existing funding level?**

20 A: The existing annual funding level for the Missouri jurisdictional component of KCP&L’s  
21 decommissioning trust fund is \$1,281,264. The recommended new annual funding level  
22 of \$1,158,417 is \$122,847 less than the existing funding level. This decrease is reflected

1 in adjustment CS-37 on the Summary of Adjustments attached to the direct testimony of  
2 KCP&L witness John P. Weisensee as Schedule JPW2010-2.

3 **Q: Please outline the assumptions that were used to arrive at the appropriate accrual**  
4 **level.**

5 A: The following factors must be considered in the determination of an appropriate accrual  
6 level.

- 7           ▪ Decommissioning Cost Estimate;
- 8           ▪ Decommissioning Cost Escalation Rate;
- 9           ▪ Decommissioning Cost Timing;
- 10          ▪ Remaining Life of the Fund;
- 11          ▪ KCP&L's Ownership Percentage;
- 12          ▪ Missouri Jurisdictional Allocation Factor;
- 13          ▪ Trust Fund Investment Mix;
- 14          ▪ Trust Fund Management Fees;
- 15          ▪ Taxes on Fund Earnings;
- 16          ▪ Earnings on Fund Investments;
- 17          ▪ Current Trust Fund Balance;
- 18          ▪ Accrual Escalation Methodology; and
- 19          ▪ IRS Tax Qualification of the Trust.

1 **Decommissioning Cost Estimate**

2 **Q: What is the current dollar decommissioning cost estimate for Wolf Creek and what**  
3 **is the basis for that estimate?**

4 A: The current decommissioning cost estimate for Wolf Creek is \$593,542,172 in 2008  
5 dollars. This cost estimate is based on a study dated August 2008 performed by TLG  
6 Services, Inc. (“TLG”). TLG is a recognized industry leader in the area of nuclear  
7 decommissioning cost analysis. The \$593,542,172 cost estimate is based on the  
8 immediate dismantlement and site restoration alternative for decommissioning. The TLG  
9 study was filed with the MPSC on August 29, 2008 in Case No. EO-2009-0072.

10 **Decommissioning Cost Escalation Rate**

11 **Q: What is the decommissioning cost escalation rate that you are recommending?**

12 A: I am recommending a cost escalation rate of 3.73% per year to escalate the 2008  
13 decommissioning cost estimate of \$593,542,172 from 2008 dollars to their equivalent  
14 levels in future years during which the decommissioning costs are expected to be  
15 incurred.

16 **Q: What index or formula was the basis for your recommended cost escalation rate?**

17 A: There are a number of indices like the Consumer Price Index or the Gross Domestic  
18 Product Deflator that are often used to measure changes in prices or inflation.  
19 Unfortunately, none of these indices specifically relates to inflation in nuclear  
20 decommissioning costs. The Nuclear Regulatory Commission (“NRC”), however, has  
21 identified three main cost drivers (labor cost, energy cost, and burial cost) in nuclear  
22 decommissioning costs and has incorporated these into a formula for escalating nuclear  
23 decommissioning costs. The NRC uses its formula to estimate current year

1 decommissioning costs by escalating a 1986 generic reference reactor decommissioning  
2 cost estimate. I used the NRC formula to develop a future nuclear decommissioning cost  
3 escalation rate for escalating the 2008 cost estimate.

4 **Q: Please describe the NRC formula.**

5 A: The NRC Cost Adjustment Formula can be found in *NUREG-1307, Revision 13, "Report*  
6 *on Waste Burial Charges – Changes in Decommissioning Waste Disposal Costs at Low-*  
7 *Level Waste Burial Facilities.*" The NRC Cost Adjustment Formula is:

$$8 \quad \text{Estimated Cost in Current Year} = [1986 \$ \text{ Cost}] * [65\% L_x + 13\% E_x + 22\% B_x]$$

9 where:

10  $L_x$  = Labor Cost Escalation from January 1986 to Current Year

11  $E_x$  = Energy Cost Escalation from January 1986 to Current Year

12  $B_x$  = Burial Cost Escalation from January 1986 to Current Year

13 In addition, the Energy Cost Escalation ( $E_x$ ) is a weighted average of two components,  
14 namely, Industrial Electric Power ( $P_x$ ) and Light Fuel Oil ( $F_x$ ). The formula for  $E_x$  is:

$$15 \quad E_x = 58\% P_x + 42\% F_x$$

16 I adapted this NRC Cost Adjustment Formula to escalate the 2008 TLG Wolf Creek  
17 decommissioning cost estimate to the appropriate future years when the decommissioning  
18 costs are expected to be incurred.

19 **Q: What was your source for the Labor and Energy escalation factors in the adapted**  
20 **NRC Formula?**

21 A: I utilized a long range forecast published by Global Insight titled *The U.S. Economy, The*  
22 *30-Year Focus, Fourth-Quarter 2008*, as the source for the cost escalation estimates for  
23 the Labor and Energy components of the adapted NRC formula. Global Insight is a well-

1 known and respected source of economic forecasts, and its *30-Year Focus* contains  
2 projections for numerous indices including the Labor and Energy components of the  
3 NRC Formula. Global Insight's forecast typically contains four scenarios: Trend,  
4 Cyclical, Optimistic, and Pessimistic. The Trend scenario is the baseline forecast and is  
5 the scenario that I utilized as the basis for the inflation estimates. The Global Insight  
6 forecast includes projections for future years through 2038. I utilized the 2038 figures as  
7 a proxy for the years 2039 through 2049 in order to develop projections through the  
8 midpoint of decommissioning.

9 **Q: How did you estimate the burial cost escalation rate?**

10 A: Unfortunately, the Global Insight forecast does not include a projection of burial costs.  
11 *NUREG-1307, Revision 13*, however, contains some historical indices for burial costs at  
12 the low-level waste storage sites located in the states of Washington and South Carolina.  
13 While neither of the storage sites has accepted low-level waste from Wolf Creek since  
14 2008, the increase in the historical burial cost indices for these sites can serve as  
15 reasonable proxies for future burial cost escalation at other sites.

16 **Q: Please describe the results of your analysis for the NRC Formula.**

17 A: For the Labor and Energy components I calculated the geometric mean of the Global  
18 Insight projections for 2009 through 2049 and used these geometric means in the NRC  
19 formula. For the Burial component I calculated the geometric means for 1998 through  
20 2008 (PWR/Compact/Direct Disposal) for the Washington and South Carolina sites,  
21 respectively, and averaged the geometric means for the two sites. The results for the  
22 various components of the NRC formula are:

1	Labor (L <sub>x</sub> )		3.0%
2	Energy (E <sub>x</sub> )	Electricity (P <sub>x</sub> )	1.7%
3		Fuel Oil (F <sub>x</sub> )	0.5%
4	Burial (B <sub>x</sub> )		7.4%

5 The resulting nuclear decommissioning cost escalation estimate calculated by plugging  
6 the figures above into the NRC formula is 3.73%. The calculation is shown below:

7 
$$\text{NRC Rate} = 65\% L_x + 13\% E_x + 22\% B_x$$

8 
$$\text{NRC Rate} = 65\% L_x + 13\% * (58\% P_x + 42\% F_x) + 22\% B_x$$

9 
$$\text{NRC Rate} = [65\% * 3.0\%] + [13\% * ((58\% * 1.7\%) + (42\% * 0.5\%))] + [22\% * 7.4\%]$$

10 
$$\text{NRC Rate} = 3.73\%$$

11 **Decommissioning Cost Timing**

12 **Q: What is the assumed timing of the future decommissioning costs?**

13 A: Wolf Creek’s operating license expires in 2045 and the 2008 TLG Wolf Creek  
14 decommissioning study showed a schedule of decommissioning costs beginning in 2045  
15 and continuing through 2053.

16 **Remaining Life of the Fund**

17 **Q: What is the remaining life of the trust fund?**

18 A: Accruals for the trust fund will continue until Wolf Creek’s operating license expires in  
19 2045. The remaining investments in the fund, however, will continue to generate  
20 earnings throughout the decommissioning process until 2053 when decommissioning is  
21 complete and all funds are exhausted.



1 **KCP&L's Ownership Percentage**

2 **Q: What is KCP&L's ownership percentage in Wolf Creek?**

3 A: KCP&L owns 47% of Wolf Creek.

4 **Missouri Jurisdictional Allocation Factor**

5 **Q: What Missouri jurisdictional allocation factor did you use in the determination of**  
6 **the accrual level?**

7 A: I used a Missouri jurisdictional allocation factor of 55.87% in the accrual calculation.

8 **Q: What is the basis for the Missouri jurisdictional allocation factor?**

9 A: Because of the unique nature of the decommissioning funding, the appropriate  
10 jurisdictional allocation factor is the weighted average of the jurisdictional demand  
11 allocation factors applicable to the jurisdiction in question throughout the entire life of  
12 Wolf Creek, both historical and future. The weather-normalized jurisdictional demand  
13 allocation factor used elsewhere in this case was used as a proxy for future jurisdictional  
14 demand allocation factors.

15 **Trust Fund Investment Mix**

16 **Q: What trust fund investment mix did you use in the determination of the accrual**  
17 **level?**

18 A: I used an assumed investment mix of 65% equity and 35% fixed income. The 65%  
19 equity allocation is made up of 41% U.S. large company stocks, 9% U.S. small company  
20 stocks, and 15% international equities. This mix is consistent with the investment  
21 guidelines agreed to by KCP&L and the fund managers and approved by the Commission  
22 in Case No. EO-2009-0439. These investment guidelines, in the view of KCP&L,  
23 provide for a portfolio that maintains an appropriate balance between minimizing risk and

1 maximizing return. I have assumed that this investment mix will be in place beginning in  
2 2010 and will remain in place until 2025. After 2025, I have gradually shifted the  
3 investment mix described above to reduce the equity allocation and increase the  
4 allocation to fixed income securities and U.S. Treasury bills (“T-bills”) such that, by the  
5 start of decommissioning in 2045, the portfolio is assumed to consist of 50% fixed  
6 income and 50% T-bills. During the period of decommissioning from 2045 to 2053, I  
7 have gradually shifted the investment mix to consist of 100% T-bills. These assumed  
8 shifts in the investment mix were intended to provide for a portfolio that minimizes the  
9 risk of loss and improves the liquidity of the fund as the need for the decommissioning  
10 funds becomes imminent.

11 **Q: Do KCP&L and the fund managers periodically monitor and review the**  
12 **appropriateness of the investment guidelines?**

13 A: Yes, and these reviews will continue to occur as time goes on and circumstances change.  
14 For instance, in the past the investment guidelines were altered in order to facilitate the  
15 fund’s move out of municipal bonds when a change in the tax rate on the fund earnings  
16 reduced the relative attractiveness of municipal bonds. Recent changes in the investment  
17 guidelines were made based on the license extension that was approved for Wolf Creek in  
18 2008.

19 **Trust Fund Management Fees**

20 **Q: What are the estimated trust fund management fees?**

21 A: The trust fund management fees consist of a minimum fixed trustee fee of \$35,000 per  
22 year plus a variable fee of 21 basis points (0.21%) based on the market value of the fixed

1 income investments and a variable fee of no more than 10 basis points (0.10%) based on  
2 the market value of the equity investments.

3 **Taxes on Fund Earnings**

4 **Q: What are the assumed taxes on the fund earnings?**

5 A: The treasuries, government bonds, corporate bonds, and corporate equities in the trust  
6 fund are subject to Federal tax at a rate of 20% and are not subject to state tax. Any  
7 municipal bonds in the trust would be subject to neither Federal nor state taxes.

8 **Earnings on Fund Investments**

9 **Q: What trust earnings rate did you assume in the determination of the accrual level?**

10 A: I calculated an assumed trust fund earnings rate at the initial investment mix described  
11 above to be 6.95% after the taxes and fees also described above. The components of this  
12 calculation are shown below.

	<u>Investment Mix</u>	<u>Return After Fees &amp; Taxes</u>
14 Large Corporate Equities	41%	8.31%
15 Small Corporate Equities	9%	12.07%
16 International Equities	15%	9.11%
17 Fixed Income Investments	35%	3.11%
18 US Treasury Bills	<u>0%</u>	<u>1.91%</u>
19 Total	<u>100%</u>	<u>6.95%</u>

20 **Q: What was the source for your trust fund earnings rate assumptions?**

21 A: I utilized the historical total return data published by Ibbotson Associates titled *Ibbotson*  
22 *SBBI 2009 Classic Yearbook Market Results for Stocks, Bonds, Bills, and Inflation 1926-*  
23 *2008* (the “Ibbotson 2009 Yearbook”), as the source for my analysis of the expected

1 return for the various investment instruments in the portfolio. Ibbotson Associates is a  
2 well-known and respected source for historical investment return data. The Ibbotson  
3 2009 Yearbook contains return data for the years 1926 to 2008. I used the methodology  
4 described in Chapter 10 of the Ibbotson 2009 Yearbook to calculate expected returns for  
5 the investments in the trust fund. I started with a riskless rate of 4.0% based on the 30  
6 year U.S. Treasury coupon rate as of September 30, 2009. I calculated the expected fixed  
7 income return of 4.1% by adding a 0.1% expected default premium based on the mean  
8 difference between historical long-term corporate bonds and long-term government bond  
9 total returns to the riskless rate of 4.0%. I calculated the expected large corporate equity  
10 return of 10.5% by adding a 6.5% equity premium based on the mean difference between  
11 large company stock total returns and long-term government bond income returns to the  
12 riskless rate of 4.0%. I calculated the expected small corporate equity return of 15.2% by  
13 adding a 4.7% small stock premium based on the mean difference between small  
14 company stock total returns and large company stock total returns to the expected large  
15 corporate equity return of 10.5%. I calculated the expected international equity return of  
16 11.5% by adding a 1.0% international stock premium based on the mean difference  
17 between international company stock total returns and large company stock total returns  
18 to the expected large corporate equity return of 10.5%. I calculated the expected T-bill  
19 return of 2.6% by subtracting an expected long-term horizon premium of 1.4% (based on  
20 the mean difference between long-term government bond income returns and T-bill total  
21 returns) from the riskless rate of 4.0%. All of the expected returns were then reduced by  
22 the management fees and income taxes to determine the expected net earnings used to  
23 determine the accrual level.

1 **Current Trust Fund Balance**

2 **Q: What was the Missouri jurisdictional trust fund balance as of December 31, 2009?**

3 A: The market value of the Missouri jurisdictional portion of KCP&L's decommissioning  
4 trust fund at December 31, 2009 was \$73,065,920 (including \$6,809,694 of net  
5 unrealized gains). The balance is \$73,386,236, including KCP&L's January 2010 deposit  
6 for the fourth-quarter 2009 accruals. Assuming an effective tax rate of 20% on  
7 unrealized net gains, the net after-tax market value of the Missouri jurisdictional portion  
8 of the trust was \$72,024,297 at December 31, 2009.

9 **Accrual Escalation Methodology**

10 **Q: What accrual escalation methodology was used in the determination of the accrual**  
11 **level?**

12 A: A level annual amount of funding was assumed.

13 **Q: Was this level funding assumption utilized in the determination of the accrual**  
14 **schedule previously approved by the MPSC for KCP&L's Missouri jurisdictional**  
15 **funding?**

16 A: Yes, KCP&L has previously utilized a level funding assumption in determining the  
17 annual accrual amount authorized by the MPSC.

18 **Q: Is the level funding that you are recommending consistent with the funding**  
19 **methodologies utilized by KCP&L in its Kansas jurisdiction?**

20 A: Yes, a level funding assumption was utilized in the determination of the accrual  
21 schedules approved by the KCC in Docket No. 06-KCPE-828-RTS and proposed in KCC  
22 Docket 10-KCPE-415-RTS.

1 **IRS Tax Qualification of the Trust**

2 **Q: What is meant by the term “tax qualification” as it relates to nuclear**  
3 **decommissioning trust funds?**

4 A: A “tax-qualified” nuclear decommissioning trust fund is a fund that meets certain criteria  
5 as defined in Section 468A of the Internal Revenue Code (“Section 468A”). Tax-  
6 qualified nuclear decommissioning trust funds are afforded favorable tax treatment as  
7 compared to non-qualified funds. There are two main tax advantages provided by a tax-  
8 qualified fund. The first is that contributions made to the trust fund can be treated as  
9 current-year tax deductions. The second is that earnings on the investments in the trust  
10 fund are taxed at an applicable federal tax rate of 20% as compared to a 35% federal tax  
11 rate on earnings in a non-qualified fund.

12 **Q: Did the Energy Policy Act of 2005 (“2005 EAct”) include any modifications to the**  
13 **special rules for nuclear decommissioning and Section 468A?**

14 A: Yes, the 2005 EAct included a number of modifications to the special rules for nuclear  
15 decommissioning. Among the modifications were amendments to Section 468A which  
16 govern the tax qualification of nuclear decommissioning trust funds. These amendments  
17 are effective for taxable years beginning after December 31, 2005.

18 **Q: What were the requirements for tax qualification under Section 468A prior to the**  
19 **changes resulting from the 2005 EAct?**

20 A: Prior to the 2005 EAct, in order to ensure the continued tax qualification of the fund,  
21 any change in the funding levels had to be filed with and approved by the Internal  
22 Revenue Service (“IRS”). The IRS required a statement in an order of the state  
23 commission (a) approving the schedule of decommissioning cost accruals; (b) finding

1 that the decommissioning cost accruals were included in cost of service and were  
2 included in rates for ratemaking purposes; and (c) finding that the earnings rate assumed  
3 for the trust took into consideration the tax rate change and the removal of the investment  
4 restrictions resulting from the Energy Policy Act of 1992.

5 **Q: How have the requirements for tax qualification changed as a result of the changes**  
6 **to Section 468A?**

7 A: There is no longer a cost of service requirement for tax-qualified funds. Previously,  
8 deposits into a tax-qualified fund were limited by the amount included in cost of service  
9 for ratemaking purposes (so long as that amount was not higher than what the level  
10 funding amount would have been). Regarding the allowed level of funding into a tax-  
11 qualified fund, the revised Section 468A states only that “the amount which a taxpayer  
12 may pay into the Fund for any taxable year shall not exceed the ruling amount applicable  
13 to such taxable year.”

14 **Q: What was the rationale for the elimination of the cost of service requirement?**

15 A: The cost of service requirement was primarily eliminated to allow nuclear owners in  
16 states that now have deregulated generation to maintain the tax-qualified status of their  
17 trust funds in the absence of cost of service-based regulation.

18 **Q: Given the elimination of the cost of service requirement for tax-qualification of the**  
19 **fund, what language would you request that the MPSC put in its Order regarding**  
20 **the amount of decommissioning funding in cost of service for ratemaking purposes?**

21 A: KCP&L respectfully requests that the MPSC use the same language in the order  
22 approving the decommissioning funding level that was required prior to the changes to  
23 Section 468A. Because of the uncertainty at this time regarding potential IRS treatment,

1 use of the prior Section 468A language provides the greatest assurance of continued tax-  
2 qualified decommissioning funding.

3 **Q: What factors previously discussed had a significant impact on the change in the**  
4 **recommended annual funding level?**

5 A: As discussed earlier in my testimony, the recommended annual funding level is  
6 approximately \$0.1 million lower than the existing funding level. The key drivers of the  
7 reduction were (i) \$1.9 million from a change in asset allocation to 65% equity / 35%  
8 debt; and (ii) \$1.8 million from a decrease in the cost escalation rate from 4.40% to  
9 3.73%. These were partly offset by (i) \$2.4 million of increased contribution due to  
10 lower assumed returns on fund assets; and (ii) \$1.1 million of increased contribution from  
11 a lower current fund balance than previously projected.

12 **Q: Does this conclude your testimony?**

13 A: Yes, it does.





**KANSAS CITY POWER & LIGHT COMPANY  
WOLF CREEK DECOMMISSIONING TRUST ANALYSIS  
MISSOURI JURISDICTION - QUALIFIED TAXABLE TRUST**

**DECOMMISSIONING COST ASSUMPTIONS**

2008 Decom Cost Est	\$ 593,542,172
Cost Escalation Rate	3.73%
KCPL Share	47.00%
Future Juris Allocation Factor	53.38%
Wtd Historical/Future Alloc Factor	55.87%

**DECOMMISSIONING TRUST FUND EARNINGS ASSUMPTIONS**

TRUST FUND MANAGEMENT FEE	
Missouri Avg Fund Bal	285,831,709
Missouri Ann Fixed Fee	18,684
Fixed Fee %	0.01%
FI Fee and Fixed Fee%	0.22%
Equity Fee and Fixed Fee	0.11%

**DECOMMISSIONING TRUST FUND CASH FLOWS**

NET AFTER-TAX MARKET VALUE	
December-09 Market Value	73,065,920
2010 Q4 Accrual	320,316
Market Value Incl Accrual	73,386,236
Unrealized Net Gain	6,809,694
Effective Tax Rate	20.00%
Tax on Unrealized Net Gain	1,361,939
Net After-Tax Market Value	72,024,297

Annual Accrual Escalation 0.00%

Year	2008 Wolf Creek Decom Cost	Escalated Wolf Creek Decom Cost	KCPL Missouri Decom Cost
2009	-	-	-
2010	-	-	-
2011	-	-	-
2012	-	-	-
2013	-	-	-
2014	-	-	-
2015	-	-	-
2016	-	-	-
2017	-	-	-
2018	-	-	-
2019	-	-	-
2020	-	-	-
2021	-	-	-
2022	-	-	-
2023	-	-	-
2024	-	-	-
2025	-	-	-
2026	-	-	-
2027	-	-	-
2028	-	-	-
2029	-	-	-
2030	-	-	-
2031	-	-	-
2032	-	-	-
2033	-	-	-
2034	-	-	-
2035	-	-	-
2036	-	-	-
2037	-	-	-
2038	-	-	-
2039	-	-	-
2040	-	-	-
2041	-	-	-
2042	-	-	-
2043	-	-	-
2044	-	-	-
2045	51,651,258	200,236,334	52,583,317
2046	114,886,262	461,992,004	121,321,997
2047	130,080,504	542,603,947	142,491,198
2048	81,527,570	352,760,227	92,637,047
2049	69,359,752	311,305,666	81,750,820
2050	62,214,207	289,649,939	76,063,890
2051	36,779,671	177,621,728	46,644,579
2052	29,171,138	146,132,226	38,375,239
2053	17,871,810	92,867,883	24,387,688
	593,542,172	2,575,169,954	676,255,774

Year	Investment Mix					Weighted After-Tax Earnings
	US T-Bills	Fixed Income	Inter-national	Small Stocks	Lrg Corp Stocks	
2009						
2010	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2011	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2012	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2013	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2014	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2015	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2016	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2017	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2018	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2019	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2020	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2021	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2022	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2023	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2024	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2025	0.0%	35.0%	15.0%	9.0%	41.0%	6.95%
2026	2.5%	35.8%	14.3%	8.6%	39.0%	6.73%
2027	5.0%	36.5%	13.5%	8.1%	36.9%	6.50%
2028	7.5%	37.3%	12.8%	7.7%	34.9%	6.28%
2029	10.0%	38.0%	12.0%	7.2%	32.8%	6.06%
2030	12.5%	38.8%	11.3%	6.8%	30.8%	5.84%
2031	15.0%	39.5%	10.5%	6.3%	28.7%	5.61%
2032	17.5%	40.3%	9.7%	5.9%	26.7%	5.39%
2033	20.0%	41.0%	9.0%	5.4%	24.6%	5.17%
2034	22.5%	41.8%	8.2%	5.0%	22.6%	4.95%
2035	25.0%	42.5%	7.5%	4.5%	20.5%	4.73%
2036	27.5%	43.3%	6.7%	4.1%	18.5%	4.50%
2037	30.0%	44.0%	6.0%	3.6%	16.4%	4.28%
2038	32.5%	44.8%	5.2%	3.2%	14.4%	4.06%
2039	35.0%	45.5%	4.5%	2.7%	12.3%	3.84%
2040	37.5%	46.3%	3.7%	2.3%	10.3%	3.61%
2041	40.0%	47.0%	3.0%	1.8%	8.2%	3.39%
2042	42.5%	47.8%	2.2%	1.4%	6.1%	3.17%
2043	45.0%	48.5%	1.5%	0.9%	4.1%	2.95%
2044	47.5%	49.3%	0.7%	0.4%	2.0%	2.73%
2045	50.0%	50.0%	0.0%	0.0%	0.0%	2.50%
2046	56.3%	43.8%	0.0%	0.0%	0.0%	2.43%
2047	62.5%	37.5%	0.0%	0.0%	0.0%	2.35%
2048	68.8%	31.3%	0.0%	0.0%	0.0%	2.28%
2049	75.0%	25.0%	0.0%	0.0%	0.0%	2.20%
2050	81.3%	18.8%	0.0%	0.0%	0.0%	2.13%
2051	87.5%	12.5%	0.0%	0.0%	0.0%	2.05%
2052	93.8%	6.3%	0.0%	0.0%	0.0%	1.98%
2053	100.0%	0.0%	0.0%	0.0%	0.0%	1.90%

Year	Trust Fund Accrual	Trust Fund Expenditure	Earnings After Fees & Taxes	Trust Fund Balance
2009				72,024,297
2010	1,281,264	0	5,037,341	78,342,903
2011	1,189,129	0	5,473,932	85,005,964
2012	1,158,417	0	5,936,055	92,100,437
2013	1,158,417	0	6,428,951	99,687,805
2014	1,158,417	0	6,956,091	107,802,313
2015	1,158,417	0	7,519,854	116,480,585
2016	1,158,417	0	8,122,786	125,761,788
2017	1,158,417	0	8,767,607	135,687,812
2018	1,158,417	0	9,457,227	146,303,457
2019	1,158,417	0	10,194,760	157,656,634
2020	1,158,417	0	10,983,533	169,798,585
2021	1,158,417	0	11,827,107	182,784,109
2022	1,158,417	0	12,729,290	196,671,816
2023	1,158,417	0	13,694,152	211,524,386
2024	1,158,417	0	14,726,049	227,408,852
2025	1,158,417	0	15,829,638	244,396,908
2026	1,158,417	0	16,465,934	262,021,259
2027	1,158,417	0	17,068,122	280,247,799
2028	1,158,417	0	17,629,818	299,036,034
2029	1,158,417	0	18,144,555	318,339,006
2030	1,158,417	0	18,605,848	338,103,271
2031	1,158,417	0	19,007,266	358,268,954
2032	1,158,417	0	19,342,505	378,769,876
2033	1,158,417	0	19,605,468	399,533,762
2034	1,158,417	0	19,790,345	420,482,524
2035	1,158,417	0	19,891,692	441,532,634
2036	1,158,417	0	19,904,516	462,595,567
2037	1,158,417	0	19,824,350	483,578,335
2038	1,158,417	0	19,647,336	504,384,088
2039	1,158,417	0	19,370,289	524,912,795
2040	1,158,417	0	18,990,776	545,061,988
2041	1,158,417	0	18,507,165	564,727,571
2042	1,158,417	0	17,918,687	583,804,675
2043	1,158,417	0	17,225,471	602,188,563
2044	1,158,417	0	16,428,587	619,775,568
2045	289,604	(52,583,317)	15,028,142	582,509,998
2046	0	(121,321,997)	13,044,076	474,232,077
2047	0	(142,491,198)	9,905,582	341,646,461
2048	0	(92,637,047)	6,994,423	256,003,837
2049	0	(81,750,820)	4,966,654	179,219,672
2050	0	(76,063,890)	3,208,312	106,364,094
2051	0	(46,644,579)	1,825,439	61,544,953
2052	0	(38,375,239)	933,182	24,102,897
2053	0	(24,387,688)	284,791	(8)

2025	0.0%	35.0%	15.0%	9.0%	41.0%	100%
2045	-2.50%	-0.75%	0.75%	0.45%	2.05%	100%
2045	50.00%	50.00%	0.00%	0.00%	0.00%	100%
2053	-6.25%	6.25%	0.00%	0.00%	0.00%	100%
2053	100.00%	0.00%	0.00%	0.00%	0.00%	100%