

NNSA POLICY

NAP 413.6

Approved: 09-23-22
Admin. Chg. 1: 09-15-23
Recertification Due: 09-15-26

CONFIDENCE LEVELS AND ESCALATION FOR COST ESTIMATING



NATIONAL NUCLEAR SECURITY ADMINISTRATION **Office of Cost Estimating and Program Evaluation**

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OFFICE OF PRIMARY INTEREST (OPI):
Office of Cost Estimating and Program Evaluation

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CONFIDENCE LEVELS AND ESCALATION FOR COST ESTIMATING

1. PURPOSE. To establish policy for use of confidence intervals and escalation for cost estimating within the U.S. Department of Energy's National Nuclear Security Administration (DOE/NNSA).
2. AUTHORITY. This NNSA Policy (NAP) is written under the Administrator's authority to set policy established pursuant to 50 United States Code (U.S.C.) 2402(d) and 2411(c).
3. CANCELLATION. None.
4. APPLICABILITY.
 - a. Federal. Applies to all federal NNSA elements.
 - b. Contractors. Does not apply to contractors.
 - c. Equivalencies/Exemptions.
 - (1) Equivalency. In accordance with the responsibilities and authorities assigned by Executive Order 12344, codified at 50 U.S.C. sections 2406 and 2511, and to ensure consistency throughout the joint Navy/DOE Naval Nuclear Propulsion Program, the Deputy Administrator for Naval Reactors (Director) will implement and oversee requirements and practices pertaining to this Directive for activities under the Director's cognizance, as deemed appropriate.
 - (2) Exemption. Estimates performed for direct use in contract actions under Department of Energy Acquisition Regulations (DEAR) and Federal Acquisition Regulations (FAR).
5. SUMMARY OF CHANGES. Not Applicable.
6. BACKGROUND. Legislation codified in 50 U.S.C. 2411 establishes a basis for development of policies and procedures for cost analysis and estimation by the Administration, including the determination of confidence levels with respect to cost estimates. Confidence levels and escalation used in cost estimating have a significant impact in budget planning and the determination of funding needed to execute capital asset acquisition projects and programs. The Government Accountability Office (GAO) *Cost Estimating and Assessment Guide* states: "Decision-makers choose the level of confidence at which to set the budget. Because each program is different, there are no set rules at what level of contingency is sufficient for program success."

NNSA's mission creates an environment where many capital asset acquisition projects and programs are unique within the United States. This can lead to widely varying expectations of ultimate cost. Consistent application of confidence levels and escalation

in budget planning focuses attention on improving the underlying point estimate of a project or program and ultimately aids in the reconciliation of unique NNSA cost considerations. In addition, the application of confidence levels and escalation should be viewed as refinement of the point estimate and not a substitute for the rigorous development of a credible point estimate based on reasonable and justifiable assumptions.

7. REQUIREMENTS.

- a. Confidence levels in Appendix A must be used for all cost estimates for programs and capital asset acquisition projects in accordance with the Phase X/6.X and DOE Order 413.3B acquisition processes.
- b. Escalation rates in Appendix B, or from the CEPE Escalation Rate Guidance, must be used when contractual site-specific rates are unknown, indeterminable, or inapplicable.

8. RESPONSIBILITIES.

- a. Director, Office of Cost Estimating and Program Evaluation (CEPE).
 - (1) Determines appropriate confidence levels for use in cost estimates.
 - (2) Publishes CEPE Escalation Rate Guidance based on analysis of the NNSA complex and current escalation trends.
 - (3) Maintains this policy and reviews and updates Appendix A annually and Appendix B semi-annually as appropriate.
- b. Federal Program Managers and Federal Project Directors.

Apply confidence level and escalation projections in cost estimates used for program and budget planning for programs and capital asset acquisition projects in accordance with the Phase X/6.X and DOE Order 413.3B acquisition processes.

9. DEFINITIONS.

- a. Acquisition Program. A defined duration, funded effort from conceptualization, initiation, design, development, test, contracting, production, deployment, logistics support, modification, and disposal to provide a new, improved, or continuing weapon and weapon systems or other products to satisfy an NNSA mission requirement or capability gap, intended for use in, or in support of, NNSA missions.
- b. Capital Asset Acquisition Project. A project with defined start and end points required in the acquisition of capital assets. The project acquisition cost of a capital asset includes both its purchase price and all other costs incurred to bring it

to a form and location suitable for its intended use. It is independent of funding type. It excludes operating expense-funded activities such as repair, maintenance or alterations that are part of routine operations and maintenance functions and do not exceed the general plant project threshold.

- c. Confidence Level. The likelihood – expressed as a percentage – that an occurrence will be realized. The higher the confidence level, the higher the probability of success.
- d. Escalation. The provision in a cost estimate for increases in the cost of equipment, material, labor, etc., due to continuing price changes over time. This applies to a specific type of work or commodity, rather than the general market. Escalation is used to estimate the future cost of a project or to bring historical costs to the present.
- e. Inflation. A rise in the general price level over time across the entire market or economy.
- f. Total Project Cost/Total Program Cost (TPC). For projects following DOE Order 413.3B (or successor order), TPC is all costs between Critical Decision (CD)-0 and CD-4 specific to a project incurred through the startup of a facility, but prior to the operation of the facility. For programs following the 6.X process, the TPC will cover all costs from phase 6.1 through phase 6.6. For other acquisition programs, the TPC is the cost of conceptualization, initiation, design, development, test, contracting, and production prior to operation and disposal.

10. REFERENCES.

- a. Federal Laws and Regulations.

50 United States Code Section 2411, *Director for Cost Estimating and Program Evaluation*
- b. Government Accountability Office.

GAO-20-195G, *GAO Cost Estimating and Assessment Guide*
- c. DOE.

Order 413.3B, *Program and Project Management for the Acquisition of Capital Assets*, dated 06-21-2023.

11. CONTACT. Director, Office of Cost Estimating and Program Evaluation, 202-586-6762.

BY ORDER OF THE ADMINISTRATOR:



Administrative Change Approved 09-15-23

Appendixes:

- A. Confidence Level Guidance.
- B. Escalation Guidance.
- C. Use of Confidence Levels.

APPENDIX A: CONFIDENCE LEVEL GUIDANCE

1. INTRODUCTION. Confidence levels are the principal tool used to establish and compare risk in cost and schedule estimates. Generally, the higher the confidence level the more likely a project will be completed within the corresponding cost and schedule position, as long as the underlying point estimate is credible, and it is based on reasonable and justifiable assumptions.
2. REQUIREMENTS. This appendix applies to cost estimates for capital asset acquisition projects and programs within the National Nuclear Security Administration (NNSA). The Office of Cost Estimating and Program Evaluation (CEPE) must review this appendix annually and update as appropriate.

Federal Program Managers/Federal Project Directors may elect to provide high, most likely, and low-cost estimates without associated confidence percentile levels or S-curve as long as the risk/uncertainty methodology is clearly documented in the program or project estimate. In this case, the high, most likely, and low estimates will be treated as the confidence percentile levels stated in Section 3 of Appendix A.

The Federal Program Manager/Federal Project Director may select a different confidence percentile level for low end the cost range with documented justification and approval from the NNSA Administrator.

3. CONFIDENCE LEVELS FOR CAPITAL ASSET ACQUISITION PROJECTS.
 - a. Nuclear Projects.
 - (1) High: 85th percentile level
 - (2) Most Likely: 50th percentile level
 - (3) Low: 15th percentile level
 - b. Non-Nuclear Projects.
 - (1) TPC greater than \$100 million:
 - (a) High: 80th percentile level
 - (b) Most Likely: 50th percentile level
 - (c) Low: 20th percentile level
 - (2) TPC less than \$100 million:
 - (a) High: 70th percentile level

(b) Most Likely: 50th percentile level

(c) Low: 20th percentile level

4. CONFIDENCE LEVELS FOR ACQUISTION PROGRAMS.

a. Nuclear weapons programs and Life Extension Programs.

(1) High: 80th percentile

(2) Low: 50th percentile

b. Other Acquisition Programs.

(1) High: 80th percentile

(2) Low: 20th percentile

APPENDIX B: ESCALATION GUIDANCE

1. **INTRODUCTION.** Escalation rates establish an expectation in the future value of funds available to complete a project. Changes in escalation can have significant impacts on budget planning and, ultimately, the success of a project. Reasonable and reliable projections of escalation rates ultimately reduce project uncertainty and improve overall project planning.
2. **REQUIREMENTS.** This appendix provides escalation guidance for capital asset acquisition projects and programs within the National Nuclear Security Administration (NNSA). This guidance and accompanying detailed Escalation Rate Guidance document must be applied for cost estimates, Analysis of Alternatives (AoAs), Independent Cost Estimates (ICEs), and Independent Cost Reviews (ICRs) and other estimates. The Office of Cost Estimating and Program Evaluation (CEPE) must review this appendix and the Escalation Rate Guidance semi-annually and update as appropriate.

Federal Program Managers/Federal Project Directors may elect to use different escalation assumptions and/or apply additional risk as long as the methodology is clearly documented in the program or project estimate.

3. **BACKGROUND AND EXPLANATION.** CEPE performed a study to analyze NNSA's escalation environment and its relationship to the wider inflationary market. This study includes a review of historical escalation for the labor, materials, and overhead markets in which the NNSA participates, focused on nuclear construction, non-nuclear construction, and weapons programs. Probability distributions of market inflation rate (referencing the Consumer Price Index for Urban workers or CPI-U) forecasts were developed leveraging inflation expectations from the Federal Reserve Bank of Philadelphia and inflation variances calculated from data published by the Philadelphia and the Minneapolis Federal Reserve Banks (Figure 1). By combining projections of inflation with NNSA's recent history of escalation, composite escalation indices and probability distributions for each NNSA Site and each category of program/project can be calculated. The composite indices and probability distributions are for use in cost estimates, AoAs, budget estimates, and other estimates where contractual rates have not been established.

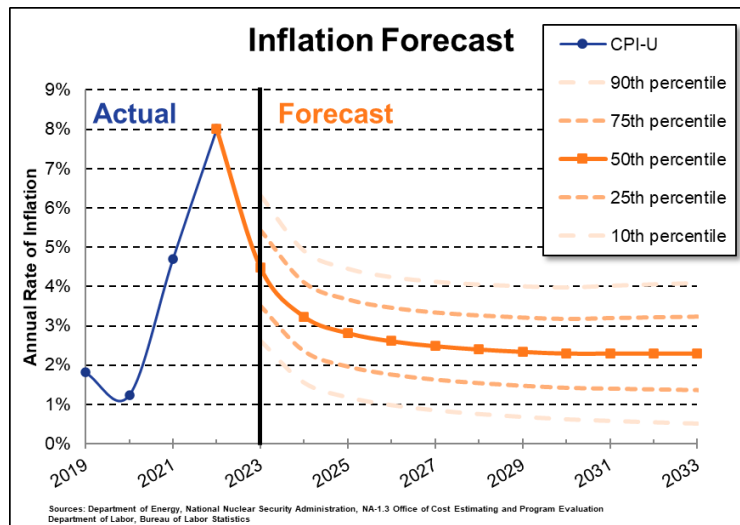


Figure 1. Projection of General Inflation and Confidence Intervals

The tables in Section 4 are for the following categories of programs/projects: Nuclear Construction, Non-Nuclear Construction, and weapons programs/Life Extension programs. Each table contains site-specific escalation rates from Fiscal Year (FY) 2023 through FY 2038. For estimates extending beyond FY 2038, the FY 2038 escalation can be repeated indefinitely for future years.

Each estimate should align its escalation percentiles with the Confidence Intervals requirements in Appendix A, so the 85th percentile estimate on a Nuclear Construction project will also use the 85th percentile escalation projection.

The process of applying escalation rates at a specific confidence level starts with the point estimate in base-year dollars followed by time-phasing across fiscal years. Then, a numerical method similar to what is described in Appendix C (e.g., Monte Carlo simulation) is used to develop a S-curve of the cost estimate outcomes. Lastly, escalation at the specified confidence level (e.g., 85th percentile) is applied to the time-phased estimate at the same confidence level (e.g., 85th percentile) by fiscal year.

4. ESCALATION RATES FOR CAPITAL ASSET ACQUISITION PROJECTS.

Projected Nuclear Escalation Rates and Indexes at Los Alamos National Laboratory (LANL)																	as of 05/01/2023
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.96%	6.58%	6.17%	5.99%	5.91%	5.86%	5.84%	5.84%	5.91%	5.97%	6.03%	6.08%	6.13%	6.17%	6.21%	6.25%
	Index	1.0796	1.1506	1.2216	1.2948	1.3712	1.4516	1.5365	1.6262	1.7223	1.8251	1.9351	2.0528	2.1785	2.3129	2.4565	2.6100
90th	Percentile	7.35%	6.00%	5.59%	5.40%	5.31%	5.26%	5.23%	5.22%	5.27%	5.32%	5.36%	5.40%	5.44%	5.47%	5.51%	5.54%
	Index	1.0735	1.1379	1.2015	1.2664	1.3337	1.4038	1.4773	1.5543	1.6362	1.7233	1.8157	1.9138	2.0179	2.1284	2.2456	2.3699
85th	Percentile	6.94%	5.61%	5.20%	5.01%	4.91%	4.85%	4.82%	4.80%	4.84%	4.88%	4.92%	4.95%	4.98%	5.00%	5.03%	5.05%
	Index	1.0694	1.1294	1.1881	1.2476	1.3088	1.3723	1.4384	1.5074	1.5804	1.6575	1.7390	1.8250	1.9158	2.0117	2.1129	2.2197
80th	Percentile	6.61%	5.30%	4.89%	4.69%	4.59%	4.53%	4.49%	4.46%	4.50%	4.53%	4.56%	4.59%	4.61%	4.63%	4.65%	4.67%
	Index	1.0661	1.1226	1.1775	1.2327	1.2893	1.3477	1.4082	1.4710	1.5372	1.6068	1.6801	1.7571	1.8381	1.9233	2.0128	2.1068
75th	Percentile	6.33%	5.03%	4.62%	4.42%	4.31%	4.25%	4.21%	4.18%	4.21%	4.23%	4.25%	4.28%	4.29%	4.31%	4.33%	4.34%
	Index	1.0633	1.1169	1.1684	1.2201	1.2728	1.3268	1.3826	1.4404	1.5010	1.5645	1.6310	1.7008	1.7738	1.8503	1.9304	2.0143
70th	Percentile	6.08%	4.79%	4.38%	4.18%	4.07%	4.00%	3.95%	3.92%	3.94%	3.96%	3.98%	4.00%	4.01%	4.03%	4.04%	4.05%
	Index	1.0608	1.1117	1.1604	1.2089	1.2581	1.3084	1.3601	1.4134	1.4691	1.5273	1.5881	1.6515	1.7178	1.7869	1.8591	1.9344
65th	Percentile	5.85%	4.57%	4.16%	3.96%	3.84%	3.77%	3.72%	3.68%	3.70%	3.71%	3.73%	3.74%	3.75%	3.76%	3.77%	3.78%
	Index	1.0585	1.1069	1.1529	1.1985	1.2446	1.2914	1.3394	1.3887	1.4401	1.4936	1.5492	1.6071	1.6674	1.7300	1.7952	1.8630
60th	Percentile	5.63%	4.36%	3.95%	3.74%	3.62%	3.55%	3.49%	3.45%	3.47%	3.48%	3.48%	3.49%	3.50%	3.51%	3.51%	3.52%
	Index	1.0563	1.1024	1.1459	1.1888	1.2318	1.2755	1.3201	1.3657	1.4130	1.4622	1.5131	1.5660	1.6208	1.6776	1.7365	1.7976
55th	Percentile	5.42%	4.16%	3.74%	3.54%	3.41%	3.33%	3.28%	3.24%	3.24%	3.25%	3.25%	3.26%	3.26%	3.26%	3.27%	3.27%
	Index	1.0542	1.0980	1.1391	1.1794	1.2196	1.2603	1.3016	1.3437	1.3873	1.4324	1.4789	1.5271	1.5768	1.6283	1.6814	1.7364
50th	Percentile	5.21%	3.96%	3.54%	3.33%	3.21%	3.12%	3.07%	3.02%	3.02%	3.02%	3.02%	3.02%	3.02%	3.02%	3.02%	3.02%
	Index	1.0521	1.0937	1.1324	1.1702	1.2077	1.2455	1.2837	1.3224	1.3624	1.4036	1.4460	1.4897	1.5347	1.5811	1.6288	1.6780
45th	Percentile	5.00%	3.76%	3.34%	3.13%	3.00%	2.92%	2.85%	2.81%	2.80%	2.80%	2.79%	2.79%	2.78%	2.78%	2.78%	2.78%
	Index	1.0500	1.0894	1.1258	1.1611	1.1959	1.2308	1.2659	1.3014	1.3379	1.3753	1.4137	1.4531	1.4936	1.5351	1.5778	1.6215
40th	Percentile	4.78%	3.55%	3.14%	2.92%	2.79%	2.70%	2.64%	2.59%	2.58%	2.57%	2.56%	2.55%	2.54%	2.54%	2.53%	2.52%
	Index	1.0478	1.0851	1.1191	1.1518	1.1840	1.2160	1.2481	1.2804	1.3134	1.3471	1.3815	1.4168	1.4528	1.4897	1.5274	1.5659
35th	Percentile	4.56%	3.34%	2.93%	2.71%	2.58%	2.48%	2.41%	2.36%	2.35%	2.33%	2.32%	2.31%	2.29%	2.28%	2.27%	2.27%
	Index	1.0456	1.0806	1.1122	1.1424	1.1718	1.2009	1.2299	1.2589	1.2884	1.3185	1.3490	1.3801	1.4118	1.4441	1.4769	1.5104
30th	Percentile	4.33%	3.12%	2.70%	2.49%	2.35%	2.25%	2.18%	2.12%	2.10%	2.08%	2.06%	2.05%	2.03%	2.02%	2.01%	1.99%
	Index	1.0433	1.0759	1.1050	1.1324	1.1590	1.1851	1.2110	1.2367	1.2626	1.2889	1.3155	1.3425	1.3697	1.3974	1.4254	1.4538
25th	Percentile	4.08%	2.88%	2.46%	2.24%	2.10%	2.00%	1.93%	1.87%	1.84%	1.81%	1.79%	1.77%	1.75%	1.73%	1.71%	1.70%
	Index	1.0408	1.0708	1.0972	1.1218	1.1454	1.1683	1.1908	1.2130	1.2353	1.2577	1.2802	1.3028	1.3256	1.3486	1.3717	1.3950
20th	Percentile	3.80%	2.62%	2.20%	1.97%	1.83%	1.72%	1.64%	1.58%	1.54%	1.51%	1.48%	1.46%	1.43%	1.41%	1.39%	1.37%
	Index	1.0380	1.0652	1.0886	1.1101	1.1303	1.1498	1.1687	1.1872	1.2055	1.2237	1.2419	1.2600	1.2781	1.2961	1.3141	1.3321
15th	Percentile	3.48%	2.31%	1.89%	1.66%	1.51%	1.40%	1.31%	1.25%	1.20%	1.16%	1.13%	1.10%	1.07%	1.04%	1.01%	0.99%
	Index	1.0348	1.0586	1.0786	1.0965	1.1130	1.1286	1.1434	1.1576	1.1716	1.1852	1.1986	1.2117	1.2246	1.2373	1.2499	1.2622
10th	Percentile	3.07%	1.91%	1.50%	1.26%	1.11%	0.99%	0.90%	0.83%	0.77%	0.72%	0.68%	0.64%	0.60%	0.57%	0.54%	0.51%
	Index	1.0307	1.0504	1.0661	1.0796	1.0915	1.1023	1.1122	1.1214	1.1301	1.1382	1.1460	1.1533	1.1603	1.1669	1.1732	1.1791
5th	Percentile	2.46%	1.34%	0.92%	0.67%	0.51%	0.39%	0.29%	0.20%	0.13%	0.07%	0.02%	-0.04%	-0.08%	-0.13%	-0.17%	-0.20%
	Index	1.0246	1.0383	1.0478	1.0548	1.0602	1.0643	1.0674	1.0695	1.0710	1.0717	1.0719	1.0715	1.0707	1.0693	1.0675	1.0653

Projected Non-Nuclear Escalation Rates and Indexes at Los Alamos National Laboratory (LANL)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.20%	5.76%	5.31%	5.10%	5.00%	4.94%	4.90%	4.88%	4.94%	5.00%	5.04%	5.08%	5.12%	5.16%	5.19%	5.23%
	Index	1.0720	1.1337	1.1939	1.2549	1.3176	1.3826	1.4504	1.5212	1.5964	1.6762	1.7607	1.8502	1.9450	2.0454	2.1516	2.2641
90th	Percentile	6.65%	5.25%	4.81%	4.60%	4.49%	4.43%	4.39%	4.36%	4.41%	4.45%	4.49%	4.52%	4.55%	4.58%	4.61%	4.63%
	Index	1.0665	1.1225	1.1765	1.2307	1.2860	1.3429	1.4018	1.4630	1.5275	1.5955	1.6671	1.7424	1.8217	1.9051	1.9929	2.0851
85th	Percentile	6.28%	4.91%	4.47%	4.27%	4.15%	4.08%	4.04%	4.01%	4.05%	4.08%	4.11%	4.14%	4.16%	4.19%	4.21%	4.23%
	Index	1.0628	1.1150	1.1648	1.2145	1.2650	1.3166	1.3698	1.4248	1.4825	1.5430	1.6065	1.6730	1.7426	1.8156	1.8920	1.9720
80th	Percentile	5.99%	4.64%	4.20%	4.00%	3.88%	3.81%	3.76%	3.73%	3.76%	3.79%	3.81%	3.84%	3.86%	3.87%	3.89%	3.91%
	Index	1.0599	1.1090	1.1556	1.2018	1.2485	1.2961	1.3449	1.3951	1.4476	1.5024	1.5597	1.6196	1.6820	1.7472	1.8152	1.8862
75th	Percentile	5.73%	4.41%	3.97%	3.77%	3.65%	3.58%	3.53%	3.49%	3.52%	3.54%	3.56%	3.58%	3.59%	3.61%	3.62%	3.63%
	Index	1.0573	1.1039	1.1478	1.1910	1.2345	1.2787	1.3238	1.3700	1.4182	1.4684	1.5207	1.5750	1.6316	1.6905	1.7517	1.8154
70th	Percentile	5.51%	4.20%	3.77%	3.56%	3.44%	3.37%	3.31%	3.28%	3.30%	3.31%	3.33%	3.34%	3.36%	3.37%	3.38%	3.39%
	Index	1.0551	1.0993	1.1408	1.1814	1.2220	1.2632	1.3050	1.3478	1.3923	1.4384	1.4863	1.5360	1.5875	1.6410	1.6964	1.7539
65th	Percentile	5.30%	4.00%	3.58%	3.37%	3.25%	3.17%	3.12%	3.08%	3.09%	3.11%	3.12%	3.13%	3.14%	3.14%	3.15%	3.16%
	Index	1.0530	1.0951	1.1343	1.1725	1.2106	1.2490	1.2879	1.3276	1.3686	1.4111	1.4551	1.5006	1.5477	1.5963	1.6467	1.6987
60th	Percentile	5.10%	3.82%	3.40%	3.19%	3.07%	2.99%	2.93%	2.89%	2.90%	2.91%	2.91%	2.92%	2.93%	2.93%	2.94%	2.94%
	Index	1.0510	1.0911	1.1281	1.1641	1.1998	1.2356	1.2718	1.3086	1.3465	1.3857	1.4261	1.4677	1.5107	1.5550	1.6007	1.6478
55th	Percentile	4.90%	3.64%	3.22%	3.01%	2.89%	2.81%	2.75%	2.71%	2.71%	2.72%	2.72%	2.72%	2.73%	2.73%	2.73%	2.73%
	Index	1.0490	1.0872	1.1222	1.1560	1.1894	1.2228	1.2564	1.2904	1.3254	1.3614	1.3985	1.4365	1.4757	1.5160	1.5574	1.6000
50th	Percentile	4.71%	3.46%	3.05%	2.84%	2.71%	2.63%	2.57%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%	2.53%
	Index	1.0471	1.0834	1.1164	1.1481	1.1793	1.2103	1.2414	1.2728	1.3050	1.3380	1.3718	1.4065	1.4420	1.4785	1.5158	1.5541
45th	Percentile	4.52%	3.29%	2.87%	2.67%	2.54%	2.45%	2.39%	2.35%	2.34%	2.34%	2.34%	2.33%	2.33%	2.33%	2.32%	2.32%
	Index	1.0452	1.0796	1.1106	1.1403	1.1692	1.1979	1.2266	1.2554	1.2848	1.3148	1.3456	1.3769	1.4090	1.4418	1.4753	1.5095
40th	Percentile	4.33%	3.11%	2.70%	2.49%	2.36%	2.28%	2.21%	2.16%	2.16%	2.15%	2.14%	2.13%	2.13%	2.12%	2.12%	2.11%
	Index	1.0433	1.0758	1.1048	1.1323	1.1591	1.1854	1.2117	1.2379	1.2646	1.2917	1.3194	1.3475	1.3762	1.4054	1.4352	1.4655
35th	Percentile	4.13%	2.93%	2.52%	2.31%	2.18%	2.09%	2.03%	1.97%	1.96%	1.95%	1.94%	1.93%	1.92%	1.91%	1.90%	1.90%
	Index	1.0413	1.0718	1.0988	1.1241	1.1486	1.1726	1.1964	1.2200	1.2440	1.2682	1.2928	1.3177	1.3430	1.3687	1.3947	1.4212
30th	Percentile	3.92%	2.73%	2.33%	2.12%	1.99%	1.90%	1.83%	1.78%	1.76%	1.74%	1.73%	1.71%	1.70%	1.69%	1.68%	1.67%
	Index	1.0392	1.0676	1.0924	1.1156	1.1377	1.1593	1.1805	1.2014	1.2226	1.2439	1.2653	1.2870	1.3089	1.3310	1.3533	1.3759
25th	Percentile	3.69%	2.52%	2.12%	1.91%	1.78%	1.69%	1.62%	1.56%	1.54%	1.52%	1.50%	1.48%	1.46%	1.45%	1.43%	1.42%
	Index	1.0369	1.0631	1.0856	1.1064	1.1261	1.1450	1.1635	1.1817	1.1998	1.2180	1.2363	1.2546	1.2729	1.2913	1.3099	1.3285
20th	Percentile	3.44%	2.29%	1.89%	1.68%	1.55%	1.45%	1.38%	1.32%	1.29%	1.27%	1.24%	1.22%	1.20%	1.18%	1.16%	1.15%
	Index	1.0344	1.0581	1.0781	1.0962	1.1132	1.1293	1.1449	1.1600	1.1750	1.1899	1.2046	1.2193	1.2339	1.2485	1.2630	1.2775
15th	Percentile	3.15%	2.02%	1.62%	1.41%	1.28%	1.18%	1.10%	1.04%	1.01%	0.97%	0.94%	0.92%	0.89%	0.87%	0.85%	0.83%
	Index	1.0315	1.0523	1.0694	1.0845	1.0983	1.1112	1.1235	1.1352	1.1466	1.1578	1.1687	1.1794	1.1899	1.2002	1.2104	1.2204
10th	Percentile	2.78%	1.68%	1.29%	1.07%	0.94%	0.83%	0.76%	0.69%	0.65%	0.61%	0.57%	0.54%	0.50%	0.48%	0.45%	0.43%
	Index	1.0278	1.0450	1.0584	1.0698	1.0798	1.0888	1.0970	1.1046	1.1117	1.1185	1.1248	1.1309	1.1366	1.1420	1.1471	1.1520
5th	Percentile	2.23%	1.17%	0.79%	0.57%	0.43%	0.32%	0.24%	0.17%	0.11%	0.06%	0.01%	-0.03%	-0.07%	-0.11%	-0.14%	-0.17%
	Index	1.0223	1.0342	1.0424	1.0483	1.0529	1.0563	1.0588	1.0606	1.0618	1.0624	1.0626	1.0623	1.0616	1.0604	1.0590	1.0571

Projected Life-Extension Programs Escalation Rates and Indexes at Los Alamos National Laboratory (LANL)													as of 05/01/2023				
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	6.73%	5.25%	4.77%	4.55%	4.43%	4.36%	4.31%	4.29%	4.34%	4.38%	4.43%	4.46%	4.50%	4.53%	4.56%	4.59%
	Index	1.0673	1.1233	1.1768	1.2304	1.2848	1.3408	1.3987	1.4586	1.5219	1.5886	1.6589	1.7330	1.8109	1.8929	1.9793	2.0701
90th	Percentile	6.21%	4.78%	4.32%	4.10%	3.98%	3.91%	3.86%	3.83%	3.87%	3.91%	3.94%	3.97%	3.99%	4.02%	4.04%	4.06%
	Index	1.0621	1.1130	1.1610	1.2087	1.2568	1.3059	1.3563	1.4083	1.4628	1.5199	1.5798	1.6424	1.7080	1.7767	1.8485	1.9236
85th	Percentile	5.87%	4.47%	4.02%	3.80%	3.68%	3.60%	3.55%	3.52%	3.55%	3.58%	3.61%	3.63%	3.65%	3.67%	3.69%	3.71%
	Index	1.0587	1.1060	1.1505	1.1942	1.2382	1.2828	1.3284	1.3752	1.4240	1.4751	1.5283	1.5838	1.6417	1.7020	1.7649	1.8304
80th	Percentile	5.59%	4.22%	3.78%	3.56%	3.44%	3.36%	3.31%	3.28%	3.30%	3.33%	3.35%	3.37%	3.38%	3.40%	3.42%	3.43%
	Index	1.0559	1.1005	1.1421	1.1828	1.2235	1.2646	1.3065	1.3493	1.3939	1.4403	1.4885	1.5386	1.5907	1.6448	1.7010	1.7594
75th	Percentile	5.36%	4.01%	3.57%	3.36%	3.23%	3.16%	3.10%	3.07%	3.09%	3.11%	3.12%	3.14%	3.15%	3.17%	3.18%	3.19%
	Index	1.0536	1.0958	1.1350	1.1731	1.2110	1.2493	1.2880	1.3275	1.3685	1.4110	1.4551	1.5008	1.5481	1.5971	1.6479	1.7005
70th	Percentile	5.15%	3.82%	3.39%	3.17%	3.05%	2.97%	2.92%	2.88%	2.89%	2.91%	2.92%	2.93%	2.95%	2.96%	2.96%	2.97%
	Index	1.0515	1.0916	1.1286	1.1644	1.1999	1.2356	1.2716	1.3082	1.3461	1.3852	1.4257	1.4675	1.5108	1.5554	1.6015	1.6491
65th	Percentile	4.95%	3.64%	3.21%	3.00%	2.88%	2.80%	2.74%	2.70%	2.72%	2.73%	2.74%	2.74%	2.75%	2.76%	2.77%	2.77%
	Index	1.0495	1.0877	1.1227	1.1564	1.1897	1.2230	1.2565	1.2905	1.3255	1.3617	1.3989	1.4373	1.4769	1.5176	1.5596	1.6029
60th	Percentile	4.76%	3.48%	3.05%	2.84%	2.72%	2.64%	2.58%	2.54%	2.55%	2.55%	2.56%	2.56%	2.57%	2.57%	2.58%	2.58%
	Index	1.0476	1.0840	1.1171	1.1489	1.1801	1.2112	1.2424	1.2739	1.3063	1.3397	1.3740	1.4092	1.4454	1.4826	1.5209	1.5601
55th	Percentile	4.58%	3.31%	2.89%	2.68%	2.56%	2.48%	2.42%	2.38%	2.38%	2.38%	2.39%	2.39%	2.39%	2.40%	2.40%	2.40%
	Index	1.0458	1.0805	1.1117	1.1416	1.1708	1.1998	1.2288	1.2580	1.2880	1.3187	1.3502	1.3824	1.4155	1.4494	1.4842	1.5198
50th	Percentile	4.40%	3.15%	2.74%	2.53%	2.41%	2.32%	2.26%	2.22%	2.22%	2.22%	2.22%	2.22%	2.22%	2.22%	2.22%	2.22%
	Index	1.0440	1.0770	1.1065	1.1345	1.1618	1.1887	1.2156	1.2426	1.2702	1.2983	1.3271	1.3566	1.3867	1.4174	1.4489	1.4810
45th	Percentile	4.23%	3.00%	2.58%	2.38%	2.25%	2.17%	2.11%	2.06%	2.06%	2.05%	2.05%	2.05%	2.04%	2.04%	2.04%	2.04%
	Index	1.0423	1.0735	1.1012	1.1274	1.1528	1.1777	1.2025	1.2273	1.2525	1.2783	1.3045	1.3312	1.3584	1.3861	1.4144	1.4432
40th	Percentile	4.05%	2.83%	2.43%	2.22%	2.09%	2.01%	1.95%	1.90%	1.89%	1.89%	1.88%	1.87%	1.87%	1.86%	1.86%	1.85%
	Index	1.0405	1.0699	1.0959	1.1202	1.1437	1.1666	1.1893	1.2119	1.2349	1.2581	1.2818	1.3058	1.3302	1.3549	1.3801	1.4057
35th	Percentile	3.86%	2.67%	2.26%	2.06%	1.93%	1.85%	1.78%	1.73%	1.72%	1.71%	1.70%	1.69%	1.68%	1.68%	1.67%	1.66%
	Index	1.0386	1.0663	1.0904	1.1128	1.1343	1.1553	1.1758	1.1962	1.2168	1.2376	1.2587	1.2800	1.3016	1.3234	1.3455	1.3679
30th	Percentile	3.66%	2.49%	2.09%	1.89%	1.76%	1.67%	1.61%	1.56%	1.54%	1.53%	1.52%	1.50%	1.49%	1.48%	1.47%	1.46%
	Index	1.0366	1.0624	1.0846	1.1051	1.1246	1.1434	1.1618	1.1799	1.1981	1.2164	1.2348	1.2534	1.2721	1.2909	1.3099	1.3291
25th	Percentile	3.45%	2.30%	1.91%	1.70%	1.58%	1.49%	1.42%	1.37%	1.35%	1.33%	1.31%	1.30%	1.28%	1.27%	1.26%	1.25%
	Index	1.0345	1.0583	1.0784	1.0968	1.1141	1.1307	1.1467	1.1624	1.1781	1.1938	1.2095	1.2252	1.2409	1.2567	1.2725	1.2884
20th	Percentile	3.22%	2.09%	1.70%	1.50%	1.37%	1.28%	1.21%	1.16%	1.13%	1.11%	1.09%	1.07%	1.05%	1.04%	1.02%	1.01%
	Index	1.0322	1.0537	1.0716	1.0876	1.1025	1.1166	1.1302	1.1433	1.1563	1.1691	1.1818	1.1945	1.2071	1.2196	1.2320	1.2444
15th	Percentile	2.94%	1.84%	1.46%	1.26%	1.13%	1.04%	0.97%	0.91%	0.88%	0.85%	0.83%	0.80%	0.78%	0.76%	0.74%	0.73%
	Index	1.0294	1.0483	1.0636	1.0770	1.0892	1.1005	1.1112	1.1213	1.1312	1.1409	1.1503	1.1596	1.1687	1.1776	1.1863	1.1949
10th	Percentile	2.59%	1.53%	1.16%	0.96%	0.83%	0.74%	0.66%	0.61%	0.57%	0.53%	0.50%	0.47%	0.44%	0.42%	0.39%	0.37%
	Index	1.0259	1.0416	1.0536	1.0637	1.0725	1.0804	1.0876	1.0942	1.1004	1.1063	1.1118	1.1170	1.1220	1.1266	1.1311	1.1353
5th	Percentile	2.08%	1.06%	0.71%	0.51%	0.38%	0.29%	0.21%	0.15%	0.10%	0.05%	0.01%	-0.03%	-0.06%	-0.09%	-0.12%	-0.15%
	Index	1.0208	1.0317	1.0390	1.0443	1.0483	1.0513	1.0535	1.0551	1.0561	1.0567	1.0568	1.0565	1.0559	1.0549	1.0536	1.0520

Projected Nuclear Escalation Rates and Indexes at Sandia National Laboratory (SNL)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.67%	6.27%	5.84%	5.66%	5.56%	5.52%	5.49%	5.48%	5.55%	5.60%	5.66%	5.71%	5.75%	5.79%	5.83%	5.86%
	Index	1.0767	1.1442	1.2111	1.2796	1.3509	1.4254	1.5036	1.5860	1.6740	1.7678	1.8678	1.9744	2.0879	2.2088	2.3375	2.4746
90th	Percentile	7.09%	5.72%	5.29%	5.10%	5.00%	4.95%	4.91%	4.90%	4.95%	4.99%	5.03%	5.07%	5.11%	5.14%	5.17%	5.20%
	Index	1.0709	1.1321	1.1921	1.2529	1.3156	1.3807	1.4485	1.5194	1.5946	1.6742	1.7585	1.8477	1.9420	2.0418	2.1473	2.2588
85th	Percentile	6.69%	5.35%	4.92%	4.73%	4.62%	4.56%	4.52%	4.50%	4.54%	4.58%	4.61%	4.64%	4.67%	4.70%	4.72%	4.74%
	Index	1.0669	1.1240	1.1793	1.2351	1.2922	1.3512	1.4123	1.4759	1.5429	1.6136	1.6880	1.7664	1.8490	1.9358	2.0272	2.1234
80th	Percentile	6.38%	5.05%	4.63%	4.43%	4.32%	4.26%	4.22%	4.19%	4.22%	4.25%	4.28%	4.30%	4.33%	4.35%	4.37%	4.39%
	Index	1.0638	1.1175	1.1692	1.2211	1.2739	1.3281	1.3841	1.4420	1.5029	1.5669	1.6339	1.7042	1.7780	1.8553	1.9363	2.0212
75th	Percentile	6.11%	4.80%	4.38%	4.18%	4.07%	4.00%	3.95%	3.92%	3.95%	3.97%	3.99%	4.01%	4.03%	4.05%	4.06%	4.08%
	Index	1.0611	1.1120	1.1606	1.2091	1.2583	1.3086	1.3603	1.4136	1.4694	1.5277	1.5887	1.6525	1.7191	1.7887	1.8613	1.9372
70th	Percentile	5.87%	4.57%	4.15%	3.95%	3.83%	3.76%	3.71%	3.68%	3.70%	3.72%	3.74%	3.75%	3.76%	3.78%	3.79%	3.80%
	Index	1.0587	1.1070	1.1530	1.1985	1.2444	1.2912	1.3392	1.3884	1.4398	1.4933	1.5491	1.6072	1.6677	1.7307	1.7963	1.8646
65th	Percentile	5.64%	4.36%	3.94%	3.74%	3.62%	3.54%	3.49%	3.45%	3.47%	3.48%	3.50%	3.51%	3.52%	3.53%	3.54%	3.55%
	Index	1.0564	1.1025	1.1459	1.1887	1.2317	1.2753	1.3199	1.3655	1.4129	1.4621	1.5132	1.5663	1.6214	1.6786	1.7380	1.7996
60th	Percentile	5.43%	4.16%	3.74%	3.53%	3.41%	3.34%	3.28%	3.24%	3.25%	3.26%	3.27%	3.28%	3.28%	3.29%	3.30%	3.30%
	Index	1.0543	1.0981	1.1392	1.1794	1.2197	1.2604	1.3018	1.3440	1.3877	1.4330	1.4799	1.5284	1.5786	1.6305	1.6843	1.7399
55th	Percentile	5.22%	3.96%	3.55%	3.34%	3.22%	3.14%	3.08%	3.04%	3.04%	3.05%	3.05%	3.06%	3.06%	3.06%	3.06%	3.07%
	Index	1.0522	1.0939	1.1327	1.1706	1.2082	1.2461	1.2845	1.3235	1.3638	1.4053	1.4482	1.4925	1.5381	1.5852	1.6338	1.6839
50th	Percentile	5.02%	3.77%	3.36%	3.15%	3.02%	2.94%	2.88%	2.84%	2.84%	2.84%	2.84%	2.84%	2.84%	2.84%	2.84%	2.84%
	Index	1.0502	1.0898	1.1264	1.1619	1.1970	1.2322	1.2676	1.3036	1.3406	1.3786	1.4177	1.4579	1.4992	1.5417	1.5855	1.6304
45th	Percentile	4.82%	3.58%	3.17%	2.96%	2.83%	2.74%	2.68%	2.63%	2.63%	2.62%	2.62%	2.62%	2.61%	2.61%	2.61%	2.60%
	Index	1.0482	1.0857	1.1201	1.1532	1.1858	1.2183	1.2510	1.2839	1.3177	1.3523	1.3877	1.4240	1.4613	1.4994	1.5385	1.5786
40th	Percentile	4.61%	3.39%	2.97%	2.76%	2.63%	2.54%	2.48%	2.43%	2.42%	2.41%	2.40%	2.39%	2.39%	2.38%	2.38%	2.37%
	Index	1.0461	1.0816	1.1137	1.1445	1.1746	1.2044	1.2343	1.2643	1.2948	1.3260	1.3579	1.3904	1.4236	1.4575	1.4921	1.5275
35th	Percentile	4.40%	3.19%	2.77%	2.56%	2.43%	2.34%	2.27%	2.22%	2.20%	2.19%	2.18%	2.16%	2.15%	2.14%	2.14%	2.13%
	Index	1.0440	1.0773	1.1071	1.1355	1.1630	1.1902	1.2172	1.2442	1.2716	1.2994	1.3276	1.3564	1.3856	1.4153	1.4455	1.4763
30th	Percentile	4.18%	2.98%	2.56%	2.35%	2.21%	2.12%	2.05%	1.99%	1.97%	1.95%	1.94%	1.92%	1.91%	1.89%	1.88%	1.87%
	Index	1.0418	1.0728	1.1003	1.1261	1.1510	1.1754	1.1994	1.2233	1.2474	1.2718	1.2964	1.3214	1.3466	1.3721	1.3979	1.4240
25th	Percentile	3.94%	2.75%	2.34%	2.12%	1.98%	1.88%	1.81%	1.75%	1.72%	1.70%	1.68%	1.66%	1.64%	1.62%	1.61%	1.59%
	Index	1.0394	1.0679	1.0928	1.1160	1.1381	1.1595	1.1805	1.2012	1.2219	1.2427	1.2635	1.2845	1.3056	1.3268	1.3481	1.3696
20th	Percentile	3.67%	2.49%	2.08%	1.86%	1.72%	1.62%	1.54%	1.48%	1.45%	1.42%	1.39%	1.37%	1.35%	1.32%	1.31%	1.29%
	Index	1.0367	1.0625	1.0846	1.1048	1.1239	1.1421	1.1597	1.1769	1.1940	1.2109	1.2278	1.2446	1.2613	1.2780	1.2947	1.3114
15th	Percentile	3.35%	2.20%	1.79%	1.57%	1.42%	1.32%	1.23%	1.17%	1.13%	1.09%	1.06%	1.03%	1.00%	0.97%	0.95%	0.93%
	Index	1.0335	1.0562	1.0751	1.0919	1.1075	1.1220	1.1359	1.1492	1.1621	1.1748	1.1872	1.1995	1.2115	1.2233	1.2349	1.2464
10th	Percentile	2.96%	1.82%	1.42%	1.19%	1.04%	0.93%	0.85%	0.78%	0.72%	0.68%	0.64%	0.60%	0.57%	0.53%	0.50%	0.48%
	Index	1.0296	1.0484	1.0632	1.0759	1.0871	1.0972	1.1065	1.1151	1.1231	1.1308	1.1380	1.1448	1.1513	1.1575	1.1633	1.1689
5th	Percentile	2.37%	1.27%	0.87%	0.64%	0.48%	0.36%	0.27%	0.19%	0.13%	0.07%	0.02%	-0.03%	-0.08%	-0.12%	-0.16%	-0.19%
	Index	1.0237	1.0367	1.0457	1.0524	1.0574	1.0613	1.0641	1.0662	1.0675	1.0682	1.0684	1.0680	1.0672	1.0660	1.0643	1.0623

Projected Non-Nuclear Escalation Rates and Indexes at Sandia National Laboratory (SNL)															as of 05/01/2023		
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.54%	6.13%	5.70%	5.51%	5.41%	5.36%	5.33%	5.32%	5.38%	5.44%	5.49%	5.53%	5.58%	5.62%	5.65%	5.69%
	Index	1.0754	1.1414	1.2064	1.2728	1.3416	1.4135	1.4888	1.5680	1.6523	1.7422	1.8378	1.9395	2.0477	2.1627	2.2850	2.4149
90th	Percentile	6.97%	5.59%	5.16%	4.97%	4.86%	4.80%	4.77%	4.75%	4.80%	4.84%	4.88%	4.92%	4.95%	4.98%	5.01%	5.04%
	Index	1.0697	1.1295	1.1878	1.2468	1.3074	1.3702	1.4355	1.5037	1.5759	1.6522	1.7329	1.8182	1.9082	2.0033	2.1037	2.2098
85th	Percentile	6.58%	5.23%	4.80%	4.60%	4.49%	4.43%	4.39%	4.37%	4.41%	4.44%	4.48%	4.50%	4.53%	4.56%	4.58%	4.60%
	Index	1.0658	1.1215	1.1753	1.2294	1.2847	1.3416	1.4005	1.4617	1.5261	1.5939	1.6652	1.7403	1.8191	1.9020	1.9892	2.0807
80th	Percentile	6.27%	4.94%	4.51%	4.31%	4.20%	4.13%	4.09%	4.06%	4.10%	4.13%	4.15%	4.18%	4.20%	4.22%	4.24%	4.25%
	Index	1.0627	1.1152	1.1655	1.2158	1.2668	1.3192	1.3732	1.4290	1.4875	1.5489	1.6132	1.6806	1.7511	1.8249	1.9023	1.9832
75th	Percentile	6.01%	4.69%	4.27%	4.06%	3.95%	3.88%	3.83%	3.80%	3.83%	3.85%	3.87%	3.89%	3.91%	3.93%	3.94%	3.96%
	Index	1.0601	1.1098	1.1571	1.2041	1.2517	1.3003	1.3501	1.4015	1.4551	1.5112	1.5697	1.6308	1.6946	1.7611	1.8306	1.9030
70th	Percentile	5.77%	4.47%	4.04%	3.84%	3.73%	3.65%	3.60%	3.57%	3.59%	3.61%	3.62%	3.64%	3.65%	3.66%	3.68%	3.69%
	Index	1.0577	1.1049	1.1496	1.1938	1.2382	1.2835	1.3297	1.3772	1.4266	1.4780	1.5316	1.5873	1.6453	1.7056	1.7683	1.8335
65th	Percentile	5.55%	4.26%	3.84%	3.64%	3.52%	3.44%	3.39%	3.35%	3.37%	3.38%	3.39%	3.40%	3.41%	3.42%	3.43%	3.44%
	Index	1.0555	1.1004	1.1427	1.1842	1.2259	1.2680	1.3110	1.3549	1.4006	1.4479	1.4970	1.5480	1.6008	1.6556	1.7124	1.7713
60th	Percentile	5.34%	4.06%	3.64%	3.44%	3.32%	3.24%	3.19%	3.15%	3.16%	3.16%	3.17%	3.18%	3.19%	3.19%	3.20%	3.20%
	Index	1.0534	1.0962	1.1361	1.1752	1.2142	1.2535	1.2935	1.3342	1.3763	1.4198	1.4649	1.5115	1.5596	1.6094	1.6609	1.7141
55th	Percentile	5.14%	3.87%	3.46%	3.25%	3.13%	3.05%	2.99%	2.95%	2.95%	2.96%	2.96%	2.96%	2.97%	2.97%	2.97%	2.98%
	Index	1.0514	1.0921	1.1298	1.1665	1.2030	1.2397	1.2767	1.3143	1.3531	1.3931	1.4344	1.4769	1.5207	1.5659	1.6124	1.6604
50th	Percentile	4.94%	3.69%	3.27%	3.06%	2.94%	2.85%	2.80%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%	2.75%
	Index	1.0494	1.0881	1.1237	1.1581	1.1921	1.2261	1.2604	1.2951	1.3307	1.3673	1.4049	1.4436	1.4833	1.5241	1.5660	1.6091
45th	Percentile	4.74%	3.50%	3.09%	2.88%	2.75%	2.66%	2.60%	2.55%	2.55%	2.55%	2.54%	2.54%	2.54%	2.53%	2.53%	2.53%
	Index	1.0474	1.0840	1.1175	1.1496	1.1812	1.2127	1.2442	1.2760	1.3086	1.3419	1.3760	1.4109	1.4467	1.4833	1.5209	1.5593
40th	Percentile	4.54%	3.31%	2.90%	2.69%	2.56%	2.47%	2.40%	2.36%	2.35%	2.34%	2.33%	2.32%	2.32%	2.31%	2.30%	2.30%
	Index	1.0454	1.0800	1.1113	1.1411	1.1703	1.1992	1.2280	1.2569	1.2864	1.3165	1.3472	1.3785	1.4104	1.4430	1.4762	1.5102
35th	Percentile	4.33%	3.12%	2.70%	2.49%	2.36%	2.27%	2.20%	2.15%	2.14%	2.12%	2.11%	2.10%	2.09%	2.08%	2.07%	2.06%
	Index	1.0433	1.0758	1.1048	1.1324	1.1591	1.1854	1.2115	1.2375	1.2639	1.2907	1.3180	1.3456	1.3738	1.4023	1.4314	1.4609
30th	Percentile	4.11%	2.91%	2.50%	2.28%	2.15%	2.06%	1.99%	1.93%	1.91%	1.90%	1.88%	1.86%	1.85%	1.84%	1.83%	1.81%
	Index	1.0411	1.0713	1.0981	1.1232	1.1473	1.1709	1.1942	1.2173	1.2406	1.2641	1.2878	1.3118	1.3361	1.3606	1.3855	1.4106
25th	Percentile	3.87%	2.69%	2.28%	2.06%	1.92%	1.83%	1.76%	1.70%	1.67%	1.65%	1.63%	1.61%	1.59%	1.58%	1.56%	1.55%
	Index	1.0387	1.0666	1.0909	1.1133	1.1348	1.1555	1.1758	1.1958	1.2158	1.2358	1.2560	1.2762	1.2965	1.3170	1.3375	1.3582
20th	Percentile	3.60%	2.44%	2.03%	1.81%	1.67%	1.57%	1.50%	1.44%	1.41%	1.38%	1.35%	1.33%	1.31%	1.28%	1.27%	1.25%
	Index	1.0360	1.0613	1.0828	1.1025	1.1209	1.1386	1.1556	1.1722	1.1887	1.2051	1.2214	1.2376	1.2537	1.2698	1.2859	1.3020
15th	Percentile	3.30%	2.15%	1.74%	1.52%	1.38%	1.28%	1.20%	1.13%	1.09%	1.06%	1.03%	1.00%	0.97%	0.95%	0.92%	0.90%
	Index	1.0330	1.0551	1.0735	1.0899	1.1049	1.1190	1.1325	1.1453	1.1578	1.1701	1.1821	1.1939	1.2055	1.2169	1.2281	1.2392
10th	Percentile	2.91%	1.78%	1.38%	1.16%	1.01%	0.90%	0.82%	0.75%	0.70%	0.66%	0.62%	0.58%	0.55%	0.52%	0.49%	0.46%
	Index	1.0291	1.0474	1.0619	1.0742	1.0851	1.0949	1.1039	1.1122	1.1200	1.1274	1.1344	1.1410	1.1472	1.1532	1.1588	1.1642
5th	Percentile	2.33%	1.24%	0.85%	0.62%	0.47%	0.35%	0.26%	0.19%	0.12%	0.07%	0.01%	-0.03%	-0.07%	-0.11%	-0.15%	-0.19%
	Index	1.0233	1.0360	1.0448	1.0513	1.0562	1.0599	1.0627	1.0646	1.0659	1.0666	1.0668	1.0665	1.0657	1.0644	1.0628	1.0609

Projected Life-Extension Programs Escalation Rates and Indexes at Sandia National Laboratory (SNL)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	6.45%	4.94%	4.45%	4.22%	4.09%	4.01%	3.97%	3.93%	3.98%	4.02%	4.06%	4.10%	4.13%	4.16%	4.18%	4.21%
	Index	1.0645	1.1171	1.1668	1.2161	1.2658	1.3166	1.3689	1.4227	1.4793	1.5389	1.6014	1.6669	1.7357	1.8079	1.8835	1.9628
90th	Percentile	5.96%	4.51%	4.03%	3.81%	3.68%	3.60%	3.55%	3.51%	3.55%	3.58%	3.61%	3.64%	3.67%	3.69%	3.71%	3.73%
	Index	1.0596	1.1073	1.1520	1.1958	1.2398	1.2845	1.3300	1.3768	1.4257	1.4768	1.5302	1.5859	1.6440	1.7046	1.7679	1.8338
85th	Percentile	5.63%	4.21%	3.75%	3.53%	3.40%	3.32%	3.27%	3.23%	3.26%	3.29%	3.31%	3.33%	3.35%	3.37%	3.39%	3.41%
	Index	1.0563	1.1008	1.1420	1.1823	1.2225	1.2631	1.3044	1.3465	1.3905	1.4362	1.4838	1.5332	1.5847	1.6381	1.6936	1.7513
80th	Percentile	5.36%	3.98%	3.53%	3.31%	3.18%	3.10%	3.04%	3.01%	3.03%	3.05%	3.07%	3.09%	3.11%	3.12%	3.14%	3.15%
	Index	1.0536	1.0955	1.1342	1.1717	1.2089	1.2464	1.2843	1.3229	1.3630	1.4047	1.4478	1.4925	1.5389	1.5869	1.6367	1.6882
75th	Percentile	5.14%	3.78%	3.33%	3.12%	2.99%	2.91%	2.85%	2.81%	2.83%	2.85%	2.87%	2.88%	2.89%	2.91%	2.92%	2.93%
	Index	1.0514	1.0911	1.1275	1.1626	1.1973	1.2322	1.2673	1.3030	1.3399	1.3781	1.4176	1.4584	1.5006	1.5442	1.5893	1.6358
70th	Percentile	4.93%	3.60%	3.16%	2.94%	2.82%	2.74%	2.68%	2.64%	2.66%	2.67%	2.68%	2.69%	2.70%	2.71%	2.72%	2.73%
	Index	1.0493	1.0871	1.1214	1.1545	1.1870	1.2195	1.2522	1.2853	1.3194	1.3546	1.3909	1.4284	1.4670	1.5068	1.5478	1.5900
65th	Percentile	4.74%	3.43%	3.00%	2.79%	2.66%	2.58%	2.52%	2.48%	2.49%	2.50%	2.51%	2.52%	2.53%	2.53%	2.54%	2.55%
	Index	1.0474	1.0834	1.1159	1.1470	1.1775	1.2079	1.2383	1.2690	1.3007	1.3332	1.3667	1.4011	1.4365	1.4729	1.5103	1.5487
60th	Percentile	4.56%	3.28%	2.85%	2.64%	2.51%	2.43%	2.37%	2.33%	2.34%	2.34%	2.35%	2.35%	2.36%	2.36%	2.37%	2.37%
	Index	1.0456	1.0799	1.1107	1.1399	1.1685	1.1969	1.2253	1.2538	1.2831	1.3131	1.3440	1.3756	1.4080	1.4413	1.4754	1.5104
55th	Percentile	4.39%	3.12%	2.70%	2.49%	2.37%	2.28%	2.22%	2.18%	2.18%	2.19%	2.19%	2.19%	2.20%	2.20%	2.20%	2.20%
	Index	1.0439	1.0765	1.1056	1.1331	1.1599	1.1864	1.2128	1.2392	1.2663	1.2940	1.3224	1.3514	1.3810	1.4114	1.4424	1.4742
50th	Percentile	4.22%	2.97%	2.56%	2.35%	2.22%	2.14%	2.08%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%	2.04%
	Index	1.0422	1.0732	1.1006	1.1265	1.1515	1.1761	1.2006	1.2250	1.2500	1.2754	1.3014	1.3279	1.3549	1.3825	1.4107	1.4394
45th	Percentile	4.05%	2.82%	2.41%	2.20%	2.08%	2.00%	1.94%	1.89%	1.89%	1.88%	1.88%	1.88%	1.88%	1.87%	1.87%	1.87%
	Index	1.0405	1.0699	1.0957	1.1198	1.1431	1.1659	1.1885	1.2110	1.2338	1.2571	1.2807	1.3048	1.3293	1.3542	1.3795	1.4053
40th	Percentile	3.88%	2.67%	2.26%	2.06%	1.93%	1.85%	1.79%	1.74%	1.74%	1.73%	1.72%	1.72%	1.71%	1.71%	1.71%	1.70%
	Index	1.0388	1.0665	1.0907	1.1131	1.1346	1.1556	1.1763	1.1968	1.2176	1.2387	1.2600	1.2817	1.3036	1.3259	1.3485	1.3715
35th	Percentile	3.70%	2.51%	2.11%	1.91%	1.78%	1.70%	1.64%	1.59%	1.58%	1.57%	1.56%	1.55%	1.55%	1.54%	1.53%	1.53%
	Index	1.0370	1.0630	1.0855	1.1062	1.1259	1.1451	1.1638	1.1824	1.2010	1.2199	1.2390	1.2582	1.2777	1.2973	1.3172	1.3373
30th	Percentile	3.51%	2.34%	1.95%	1.75%	1.63%	1.54%	1.48%	1.43%	1.42%	1.40%	1.39%	1.38%	1.37%	1.36%	1.35%	1.34%
	Index	1.0351	1.0594	1.0801	1.0990	1.1168	1.1341	1.1508	1.1673	1.1838	1.2004	1.2171	1.2339	1.2508	1.2678	1.2849	1.3022
25th	Percentile	3.31%	2.16%	1.78%	1.58%	1.46%	1.37%	1.31%	1.26%	1.24%	1.22%	1.21%	1.19%	1.18%	1.17%	1.16%	1.14%
	Index	1.0331	1.0554	1.0742	1.0912	1.1071	1.1222	1.1369	1.1512	1.1654	1.1797	1.1939	1.2081	1.2224	1.2366	1.2509	1.2652
20th	Percentile	3.08%	1.96%	1.59%	1.39%	1.27%	1.18%	1.11%	1.06%	1.04%	1.02%	1.00%	0.98%	0.97%	0.95%	0.94%	0.92%
	Index	1.0308	1.0511	1.0677	1.0826	1.0963	1.1092	1.1216	1.1335	1.1453	1.1570	1.1685	1.1800	1.1914	1.2028	1.2140	1.2252
15th	Percentile	2.82%	1.73%	1.36%	1.17%	1.04%	0.96%	0.89%	0.84%	0.81%	0.78%	0.76%	0.74%	0.72%	0.70%	0.68%	0.67%
	Index	1.0282	1.0460	1.0602	1.0726	1.0838	1.0942	1.1039	1.1132	1.1222	1.1310	1.1396	1.1480	1.1563	1.1644	1.1723	1.1801
10th	Percentile	2.49%	1.44%	1.08%	0.89%	0.77%	0.68%	0.61%	0.56%	0.52%	0.49%	0.46%	0.43%	0.41%	0.38%	0.36%	0.34%
	Index	1.0249	1.0396	1.0508	1.0601	1.0683	1.0755	1.0821	1.0881	1.0938	1.0991	1.1041	1.1089	1.1134	1.1177	1.1217	1.1256
5th	Percentile	1.99%	1.00%	0.66%	0.48%	0.35%	0.26%	0.19%	0.14%	0.09%	0.05%	0.01%	-0.02%	-0.06%	-0.08%	-0.11%	-0.14%
	Index	1.0199	1.0302	1.0370	1.0419	1.0456	1.0483	1.0504	1.0518	1.0528	1.0533	1.0534	1.0531	1.0526	1.0517	1.0505	1.0490

Projected Nuclear Escalation Rates and Indexes at Savannah River Site (SRS)															as of 05/01/2023		
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.98%	6.61%	6.20%	6.03%	5.94%	5.90%	5.88%	5.87%	5.95%	6.01%	6.06%	6.12%	6.16%	6.21%	6.25%	6.29%
	Index	1.0798	1.1512	1.2226	1.2963	1.3733	1.4543	1.5398	1.6302	1.7272	1.8309	1.9420	2.0607	2.1877	2.3235	2.4687	2.6239
90th	Percentile	7.37%	6.03%	5.62%	5.43%	5.34%	5.29%	5.26%	5.25%	5.30%	5.35%	5.40%	5.44%	5.47%	5.51%	5.54%	5.57%
	Index	1.0737	1.1385	1.2024	1.2678	1.3355	1.4061	1.4801	1.5578	1.6404	1.7282	1.8215	1.9205	2.0256	2.1372	2.2556	2.3812
85th	Percentile	6.96%	5.64%	5.22%	5.04%	4.94%	4.88%	4.85%	4.83%	4.87%	4.91%	4.95%	4.98%	5.01%	5.04%	5.06%	5.09%
	Index	1.0696	1.1299	1.1889	1.2488	1.3105	1.3744	1.4410	1.5106	1.5841	1.6619	1.7441	1.8309	1.9226	2.0194	2.1217	2.2296
80th	Percentile	6.64%	5.32%	4.91%	4.72%	4.62%	4.55%	4.51%	4.49%	4.53%	4.56%	4.59%	4.61%	4.64%	4.66%	4.68%	4.70%
	Index	1.0664	1.1231	1.1783	1.2339	1.2909	1.3496	1.4106	1.4739	1.5406	1.6109	1.6848	1.7625	1.8442	1.9302	2.0205	2.1155
75th	Percentile	6.36%	5.06%	4.64%	4.45%	4.34%	4.27%	4.23%	4.20%	4.23%	4.26%	4.28%	4.30%	4.32%	4.34%	4.36%	4.37%
	Index	1.0636	1.1173	1.1692	1.2212	1.2742	1.3287	1.3849	1.4431	1.5041	1.5682	1.6353	1.7056	1.7793	1.8565	1.9374	2.0221
70th	Percentile	6.10%	4.82%	4.40%	4.20%	4.09%	4.02%	3.98%	3.94%	3.97%	3.99%	4.00%	4.02%	4.04%	4.05%	4.06%	4.08%
	Index	1.0610	1.1122	1.1611	1.2099	1.2594	1.3101	1.3622	1.4159	1.4720	1.5307	1.5920	1.6560	1.7229	1.7926	1.8655	1.9415
65th	Percentile	5.87%	4.59%	4.18%	3.98%	3.86%	3.79%	3.74%	3.70%	3.72%	3.74%	3.75%	3.76%	3.77%	3.78%	3.79%	3.80%
	Index	1.0587	1.1074	1.1536	1.1995	1.2458	1.2930	1.3414	1.3911	1.4428	1.4967	1.5528	1.6112	1.6720	1.7352	1.8010	1.8695
60th	Percentile	5.65%	4.38%	3.97%	3.76%	3.64%	3.57%	3.51%	3.48%	3.49%	3.50%	3.51%	3.51%	3.52%	3.53%	3.53%	3.54%
	Index	1.0565	1.1028	1.1465	1.1897	1.2331	1.2771	1.3219	1.3679	1.4156	1.4651	1.5165	1.5698	1.6250	1.6824	1.7418	1.8035
55th	Percentile	5.44%	4.18%	3.76%	3.56%	3.43%	3.35%	3.30%	3.26%	3.26%	3.27%	3.27%	3.28%	3.28%	3.28%	3.29%	3.29%
	Index	1.0544	1.0984	1.1397	1.1803	1.2208	1.2617	1.3033	1.3458	1.3897	1.4351	1.4820	1.5306	1.5807	1.6326	1.6863	1.7417
50th	Percentile	5.23%	3.98%	3.56%	3.35%	3.23%	3.14%	3.08%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%	3.04%
	Index	1.0523	1.0941	1.1330	1.1710	1.2088	1.2468	1.2853	1.3243	1.3646	1.4061	1.4488	1.4929	1.5383	1.5850	1.6332	1.6829
45th	Percentile	5.02%	3.78%	3.36%	3.15%	3.02%	2.93%	2.87%	2.82%	2.82%	2.81%	2.81%	2.81%	2.80%	2.80%	2.80%	2.79%
	Index	1.0502	1.0898	1.1264	1.1618	1.1969	1.2320	1.2674	1.3032	1.3399	1.3776	1.4163	1.4560	1.4968	1.5387	1.5817	1.6259
40th	Percentile	4.80%	3.57%	3.15%	2.94%	2.81%	2.72%	2.65%	2.60%	2.59%	2.58%	2.57%	2.57%	2.56%	2.55%	2.55%	2.54%
	Index	1.0480	1.0854	1.1197	1.1526	1.1849	1.2172	1.2495	1.2820	1.3152	1.3492	1.3839	1.4194	1.4558	1.4929	1.5309	1.5698
35th	Percentile	4.58%	3.36%	2.94%	2.73%	2.59%	2.50%	2.43%	2.38%	2.36%	2.35%	2.33%	2.32%	2.31%	2.30%	2.29%	2.28%
	Index	1.0458	1.0809	1.1127	1.1430	1.1727	1.2020	1.2312	1.2604	1.2901	1.3204	1.3512	1.3825	1.4144	1.4470	1.4801	1.5138
30th	Percentile	4.35%	3.14%	2.72%	2.50%	2.36%	2.26%	2.19%	2.14%	2.11%	2.09%	2.08%	2.06%	2.04%	2.03%	2.02%	2.01%
	Index	1.0435	1.0762	1.1054	1.1331	1.1598	1.1861	1.2121	1.2380	1.2642	1.2906	1.3174	1.3446	1.3721	1.3999	1.4282	1.4568
25th	Percentile	4.10%	2.90%	2.48%	2.26%	2.11%	2.01%	1.94%	1.88%	1.85%	1.82%	1.80%	1.78%	1.76%	1.74%	1.72%	1.71%
	Index	1.0410	1.0711	1.0976	1.1224	1.1461	1.1692	1.1918	1.2142	1.2367	1.2592	1.2819	1.3047	1.3276	1.3508	1.3741	1.3975
20th	Percentile	3.81%	2.63%	2.21%	1.98%	1.84%	1.73%	1.65%	1.59%	1.55%	1.52%	1.49%	1.47%	1.44%	1.42%	1.40%	1.38%
	Index	1.0381	1.0654	1.0890	1.1106	1.1310	1.1506	1.1696	1.1882	1.2067	1.2250	1.2433	1.2615	1.2797	1.2979	1.3161	1.3342
15th	Percentile	3.49%	2.32%	1.90%	1.67%	1.52%	1.41%	1.32%	1.25%	1.21%	1.17%	1.13%	1.10%	1.07%	1.04%	1.02%	0.99%
	Index	1.0349	1.0589	1.0789	1.0969	1.1136	1.1292	1.1442	1.1585	1.1725	1.1862	1.1997	1.2129	1.2259	1.2387	1.2514	1.2638
10th	Percentile	3.08%	1.92%	1.50%	1.27%	1.11%	1.00%	0.91%	0.83%	0.78%	0.73%	0.68%	0.64%	0.61%	0.57%	0.54%	0.51%
	Index	1.0308	1.0506	1.0664	1.0799	1.0919	1.1028	1.1128	1.1220	1.1308	1.1390	1.1468	1.1542	1.1612	1.1678	1.1741	1.1801
5th	Percentile	2.47%	1.34%	0.92%	0.68%	0.51%	0.39%	0.29%	0.20%	0.14%	0.07%	0.02%	-0.04%	-0.08%	-0.13%	-0.17%	-0.21%
	Index	1.0247	1.0384	1.0480	1.0551	1.0605	1.0646	1.0677	1.0699	1.0713	1.0721	1.0723	1.0719	1.0710	1.0696	1.0678	1.0657

Projected Non-Nuclear Escalation Rates and Indexes at Savannah River Site (SRS)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.70%	6.30%	5.88%	5.69%	5.60%	5.55%	5.53%	5.51%	5.58%	5.64%	5.69%	5.74%	5.79%	5.83%	5.87%	5.90%
	Index	1.0770	1.1449	1.2121	1.2811	1.3528	1.4279	1.5068	1.5899	1.6787	1.7733	1.8743	1.9819	2.0966	2.2188	2.3489	2.4875
90th	Percentile	7.11%	5.75%	5.32%	5.13%	5.03%	4.98%	4.95%	4.93%	4.98%	5.02%	5.07%	5.10%	5.14%	5.17%	5.20%	5.23%
	Index	1.0711	1.1327	1.1930	1.2542	1.3173	1.3829	1.4513	1.5228	1.5986	1.6790	1.7640	1.8540	1.9493	2.0501	2.1567	2.2695
85th	Percentile	6.72%	5.37%	4.95%	4.76%	4.65%	4.59%	4.55%	4.53%	4.57%	4.61%	4.64%	4.67%	4.70%	4.73%	4.75%	4.77%
	Index	1.0672	1.1245	1.1802	1.2363	1.2938	1.3532	1.4148	1.4789	1.5466	1.6179	1.6930	1.7721	1.8554	1.9431	2.0355	2.1326
80th	Percentile	6.40%	5.08%	4.65%	4.46%	4.35%	4.28%	4.24%	4.21%	4.25%	4.28%	4.31%	4.33%	4.35%	4.38%	4.40%	4.41%
	Index	1.0640	1.1180	1.1700	1.2222	1.2754	1.3300	1.3864	1.4449	1.5063	1.5707	1.6384	1.7093	1.7838	1.8618	1.9437	2.0294
75th	Percentile	6.13%	4.82%	4.40%	4.20%	4.09%	4.02%	3.98%	3.94%	3.97%	4.00%	4.02%	4.04%	4.06%	4.07%	4.09%	4.10%
	Index	1.0613	1.1125	1.1614	1.2102	1.2597	1.3103	1.3624	1.4162	1.4724	1.5313	1.5928	1.6571	1.7244	1.7946	1.8680	1.9446
70th	Percentile	5.89%	4.59%	4.17%	3.97%	3.86%	3.78%	3.74%	3.70%	3.72%	3.74%	3.76%	3.77%	3.79%	3.80%	3.81%	3.83%
	Index	1.0589	1.1075	1.1537	1.1995	1.2458	1.2929	1.3412	1.3908	1.4426	1.4966	1.5529	1.6115	1.6726	1.7362	1.8024	1.8713
65th	Percentile	5.66%	4.38%	3.96%	3.76%	3.64%	3.56%	3.51%	3.48%	3.49%	3.51%	3.52%	3.53%	3.54%	3.55%	3.56%	3.57%
	Index	1.0566	1.1029	1.1466	1.1897	1.2330	1.2769	1.3218	1.3677	1.4155	1.4651	1.5167	1.5703	1.6259	1.6836	1.7435	1.8057
60th	Percentile	5.45%	4.18%	3.76%	3.55%	3.43%	3.36%	3.30%	3.26%	3.27%	3.28%	3.29%	3.30%	3.31%	3.31%	3.32%	3.32%
	Index	1.0545	1.0985	1.1398	1.1804	1.2209	1.2619	1.3036	1.3461	1.3902	1.4358	1.4831	1.5320	1.5826	1.6351	1.6893	1.7455
55th	Percentile	5.24%	3.98%	3.57%	3.36%	3.24%	3.16%	3.10%	3.06%	3.06%	3.07%	3.07%	3.07%	3.08%	3.08%	3.08%	3.09%
	Index	1.0524	1.0943	1.1334	1.1714	1.2093	1.2475	1.2861	1.3255	1.3661	1.4080	1.4512	1.4958	1.5419	1.5894	1.6384	1.6890
50th	Percentile	5.04%	3.79%	3.37%	3.17%	3.04%	2.96%	2.90%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%	2.85%
	Index	1.0504	1.0902	1.1270	1.1627	1.1980	1.2335	1.2692	1.3054	1.3427	1.3810	1.4204	1.4610	1.5027	1.5456	1.5897	1.6350
45th	Percentile	4.84%	3.60%	3.18%	2.97%	2.85%	2.76%	2.70%	2.65%	2.65%	2.64%	2.64%	2.63%	2.63%	2.63%	2.62%	2.62%
	Index	1.0484	1.0861	1.1207	1.1540	1.1868	1.2196	1.2525	1.2856	1.3197	1.3545	1.3902	1.4269	1.4644	1.5029	1.5423	1.5827
40th	Percentile	4.63%	3.40%	2.99%	2.78%	2.65%	2.56%	2.49%	2.44%	2.43%	2.43%	2.42%	2.41%	2.40%	2.40%	2.39%	2.38%
	Index	1.0463	1.0819	1.1142	1.1452	1.1755	1.2056	1.2356	1.2658	1.2966	1.3281	1.3602	1.3929	1.4264	1.4606	1.4955	1.5312
35th	Percentile	4.42%	3.20%	2.79%	2.57%	2.44%	2.35%	2.28%	2.23%	2.22%	2.20%	2.19%	2.18%	2.17%	2.16%	2.15%	2.14%
	Index	1.0442	1.0776	1.1076	1.1362	1.1639	1.1913	1.2184	1.2456	1.2732	1.3012	1.3297	1.3587	1.3881	1.4181	1.4486	1.4796
30th	Percentile	4.19%	2.99%	2.58%	2.36%	2.23%	2.13%	2.06%	2.00%	1.98%	1.97%	1.95%	1.93%	1.92%	1.91%	1.89%	1.88%
	Index	1.0419	1.0731	1.1007	1.1267	1.1518	1.1763	1.2006	1.2246	1.2489	1.2735	1.2983	1.3234	1.3488	1.3745	1.4006	1.4269
25th	Percentile	3.95%	2.76%	2.35%	2.13%	1.99%	1.89%	1.82%	1.76%	1.74%	1.71%	1.69%	1.67%	1.65%	1.64%	1.62%	1.60%
	Index	1.0395	1.0682	1.0933	1.1166	1.1388	1.1604	1.1815	1.2023	1.2232	1.2441	1.2652	1.2863	1.3075	1.3289	1.3504	1.3721
20th	Percentile	3.68%	2.51%	2.09%	1.87%	1.73%	1.63%	1.55%	1.49%	1.46%	1.43%	1.40%	1.38%	1.35%	1.33%	1.31%	1.30%
	Index	1.0368	1.0628	1.0850	1.1053	1.1245	1.1428	1.1606	1.1779	1.1951	1.2122	1.2291	1.2461	1.2629	1.2798	1.2966	1.3134
15th	Percentile	3.36%	2.21%	1.80%	1.57%	1.43%	1.32%	1.24%	1.18%	1.14%	1.10%	1.07%	1.03%	1.01%	0.98%	0.96%	0.93%
	Index	1.0336	1.0565	1.0754	1.0924	1.1080	1.1227	1.1366	1.1500	1.1630	1.1758	1.1884	1.2006	1.2127	1.2246	1.2363	1.2479
10th	Percentile	2.97%	1.83%	1.42%	1.20%	1.05%	0.94%	0.85%	0.78%	0.73%	0.68%	0.64%	0.60%	0.57%	0.54%	0.51%	0.48%
	Index	1.0297	1.0486	1.0635	1.0762	1.0875	1.0977	1.1071	1.1157	1.1238	1.1315	1.1388	1.1457	1.1522	1.1584	1.1643	1.1699
5th	Percentile	2.38%	1.28%	0.87%	0.64%	0.48%	0.36%	0.27%	0.19%	0.13%	0.07%	0.02%	-0.03%	-0.08%	-0.12%	-0.16%	-0.19%
	Index	1.0238	1.0369	1.0459	1.0526	1.0577	1.0616	1.0645	1.0665	1.0679	1.0686	1.0687	1.0684	1.0676	1.0663	1.0646	1.0626

Projected Life-Extension Programs Escalation Rates and Indexes at Savannah River Site (SRS)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.82%	6.43%	6.01%	5.83%	5.74%	5.70%	5.67%	5.66%	5.73%	5.79%	5.85%	5.90%	5.94%	5.99%	6.02%	6.06%
	Index	1.0782	1.1475	1.2165	1.2874	1.3613	1.4388	1.5205	1.6066	1.6987	1.7971	1.9022	2.0144	2.1341	2.2618	2.3981	2.5434
90th	Percentile	7.22%	5.86%	5.45%	5.26%	5.16%	5.11%	5.08%	5.06%	5.11%	5.16%	5.20%	5.24%	5.28%	5.31%	5.34%	5.37%
	Index	1.0722	1.1351	1.1969	1.2598	1.3249	1.3925	1.4632	1.5373	1.6159	1.6993	1.7877	1.8815	1.9808	2.0859	2.1974	2.3154
85th	Percentile	6.82%	5.48%	5.06%	4.87%	4.77%	4.71%	4.68%	4.65%	4.70%	4.73%	4.77%	4.80%	4.83%	4.86%	4.88%	4.90%
	Index	1.0682	1.1268	1.1838	1.2415	1.3007	1.3620	1.4257	1.4920	1.5621	1.6361	1.7141	1.7964	1.8831	1.9746	2.0709	2.1725
80th	Percentile	6.50%	5.18%	4.76%	4.57%	4.46%	4.40%	4.36%	4.33%	4.37%	4.40%	4.42%	4.45%	4.47%	4.49%	4.51%	4.53%
	Index	1.0650	1.1201	1.1735	1.2271	1.2818	1.3381	1.3964	1.4569	1.5205	1.5873	1.6575	1.7313	1.8087	1.8900	1.9753	2.0649
75th	Percentile	6.22%	4.92%	4.50%	4.30%	4.19%	4.13%	4.08%	4.05%	4.08%	4.11%	4.13%	4.15%	4.17%	4.18%	4.20%	4.22%
	Index	1.0622	1.1145	1.1647	1.2148	1.2657	1.3179	1.3717	1.4273	1.4856	1.5465	1.6104	1.6772	1.7470	1.8201	1.8966	1.9765
70th	Percentile	5.98%	4.68%	4.27%	4.07%	3.95%	3.88%	3.84%	3.80%	3.82%	3.84%	3.86%	3.88%	3.89%	3.91%	3.92%	3.93%
	Index	1.0598	1.1094	1.1568	1.2038	1.2514	1.3000	1.3499	1.4012	1.4548	1.5107	1.5691	1.6299	1.6933	1.7595	1.8284	1.9002
65th	Percentile	5.75%	4.47%	4.05%	3.85%	3.73%	3.66%	3.61%	3.57%	3.59%	3.60%	3.61%	3.63%	3.64%	3.65%	3.66%	3.66%
	Index	1.0575	1.1047	1.1495	1.1937	1.2383	1.2836	1.3299	1.3774	1.4268	1.4782	1.5316	1.5872	1.6449	1.7049	1.7672	1.8320
60th	Percentile	5.53%	4.26%	3.85%	3.64%	3.52%	3.44%	3.39%	3.35%	3.36%	3.37%	3.38%	3.39%	3.40%	3.40%	3.41%	3.41%
	Index	1.0553	1.1003	1.1426	1.1842	1.2259	1.2682	1.3112	1.3551	1.4007	1.4479	1.4969	1.5476	1.6002	1.6546	1.7110	1.7694
55th	Percentile	5.32%	4.06%	3.65%	3.44%	3.32%	3.24%	3.18%	3.14%	3.15%	3.15%	3.15%	3.16%	3.16%	3.16%	3.17%	3.17%
	Index	1.0532	1.0960	1.1360	1.1751	1.2141	1.2534	1.2933	1.3339	1.3758	1.4192	1.4639	1.5102	1.5579	1.6072	1.6582	1.7107
50th	Percentile	5.12%	3.87%	3.45%	3.24%	3.12%	3.03%	2.98%	2.93%	2.93%	2.93%	2.93%	2.93%	2.93%	2.93%	2.93%	2.93%
	Index	1.0512	1.0918	1.1295	1.1661	1.2025	1.2390	1.2759	1.3133	1.3518	1.3914	1.4322	1.4742	1.5174	1.5619	1.6077	1.6548
45th	Percentile	4.91%	3.67%	3.26%	3.05%	2.92%	2.83%	2.77%	2.72%	2.72%	2.71%	2.71%	2.71%	2.70%	2.70%	2.70%	2.69%
	Index	1.0491	1.0876	1.1230	1.1572	1.1910	1.2247	1.2587	1.2929	1.3280	1.3641	1.4010	1.4389	1.4778	1.5177	1.5586	1.6006
40th	Percentile	4.70%	3.47%	3.06%	2.84%	2.71%	2.63%	2.56%	2.51%	2.50%	2.49%	2.48%	2.47%	2.47%	2.46%	2.46%	2.45%
	Index	1.0470	1.0834	1.1165	1.1483	1.1794	1.2104	1.2414	1.2725	1.3043	1.3368	1.3700	1.4039	1.4386	1.4740	1.5102	1.5472
35th	Percentile	4.48%	3.27%	2.85%	2.64%	2.50%	2.41%	2.34%	2.29%	2.28%	2.26%	2.25%	2.24%	2.23%	2.22%	2.21%	2.20%
	Index	1.0448	1.0790	1.1098	1.1390	1.1675	1.1957	1.2237	1.2517	1.2802	1.3092	1.3386	1.3686	1.3990	1.4300	1.4616	1.4937
30th	Percentile	4.26%	3.05%	2.64%	2.42%	2.28%	2.19%	2.12%	2.06%	2.04%	2.02%	2.00%	1.99%	1.97%	1.96%	1.95%	1.93%
	Index	1.0426	1.0744	1.1027	1.1293	1.1551	1.1804	1.2053	1.2302	1.2552	1.2806	1.3062	1.3322	1.3584	1.3850	1.4120	1.4393
25th	Percentile	4.01%	2.82%	2.40%	2.18%	2.04%	1.94%	1.87%	1.81%	1.78%	1.76%	1.74%	1.72%	1.70%	1.68%	1.66%	1.65%
	Index	1.0401	1.0694	1.0951	1.1190	1.1418	1.1640	1.1858	1.2073	1.2288	1.2504	1.2721	1.2939	1.3159	1.3380	1.3602	1.3826
20th	Percentile	3.74%	2.56%	2.14%	1.92%	1.78%	1.67%	1.60%	1.53%	1.50%	1.47%	1.44%	1.41%	1.39%	1.37%	1.35%	1.33%
	Index	1.0374	1.0639	1.0867	1.1075	1.1272	1.1461	1.1643	1.1822	1.1999	1.2175	1.2350	1.2525	1.2699	1.2873	1.3047	1.3220
15th	Percentile	3.42%	2.25%	1.84%	1.61%	1.47%	1.36%	1.28%	1.21%	1.17%	1.13%	1.09%	1.06%	1.03%	1.01%	0.98%	0.96%
	Index	1.0342	1.0575	1.0769	1.0943	1.1103	1.1254	1.1397	1.1535	1.1670	1.1801	1.1931	1.2057	1.2182	1.2305	1.2426	1.2545
10th	Percentile	3.01%	1.87%	1.46%	1.23%	1.07%	0.96%	0.87%	0.80%	0.75%	0.70%	0.66%	0.62%	0.59%	0.55%	0.52%	0.49%
	Index	1.0301	1.0494	1.0647	1.0778	1.0894	1.0998	1.1094	1.1183	1.1267	1.1346	1.1421	1.1492	1.1559	1.1623	1.1684	1.1741
5th	Percentile	2.42%	1.30%	0.89%	0.66%	0.50%	0.37%	0.28%	0.20%	0.13%	0.07%	0.02%	-0.03%	-0.08%	-0.12%	-0.16%	-0.20%
	Index	1.0242	1.0375	1.0468	1.0537	1.0589	1.0628	1.0658	1.0679	1.0693	1.0700	1.0702	1.0698	1.0690	1.0677	1.0660	1.0638

Projected Nuclear Escalation Rates and Indexes at Pantex Plant															as of 05/01/2023		
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	6.20%	4.67%	4.17%	3.93%	3.79%	3.71%	3.66%	3.62%	3.67%	3.70%	3.74%	3.77%	3.80%	3.83%	3.85%	3.88%
	Index	1.0620	1.1117	1.1580	1.2035	1.2492	1.2956	1.3430	1.3916	1.4426	1.4961	1.5520	1.6105	1.6717	1.7357	1.8026	1.8725
90th	Percentile	5.73%	4.26%	3.78%	3.54%	3.41%	3.33%	3.27%	3.24%	3.27%	3.30%	3.33%	3.35%	3.38%	3.40%	3.42%	3.43%
	Index	1.0573	1.1024	1.1440	1.1846	1.2250	1.2658	1.3072	1.3495	1.3936	1.4396	1.4875	1.5374	1.5893	1.6432	1.6994	1.7577
85th	Percentile	5.41%	3.98%	3.51%	3.28%	3.15%	3.07%	3.01%	2.97%	3.00%	3.03%	3.05%	3.07%	3.09%	3.11%	3.12%	3.14%
	Index	1.0541	1.0961	1.1346	1.1719	1.2088	1.2460	1.2835	1.3217	1.3614	1.4026	1.4454	1.4898	1.5358	1.5834	1.6329	1.6841
80th	Percentile	5.16%	3.76%	3.30%	3.08%	2.95%	2.87%	2.81%	2.77%	2.79%	2.81%	2.83%	2.85%	2.86%	2.87%	2.89%	2.90%
	Index	1.0516	1.0911	1.1272	1.1619	1.1961	1.2304	1.2650	1.3000	1.3363	1.3738	1.4127	1.4529	1.4944	1.5374	1.5818	1.6276
75th	Percentile	4.94%	3.57%	3.12%	2.90%	2.77%	2.69%	2.63%	2.59%	2.61%	2.63%	2.64%	2.65%	2.66%	2.68%	2.69%	2.70%
	Index	1.0494	1.0869	1.1208	1.1534	1.1853	1.2172	1.2492	1.2816	1.3150	1.3496	1.3852	1.4219	1.4598	1.4989	1.5391	1.5806
70th	Percentile	4.74%	3.40%	2.96%	2.74%	2.61%	2.53%	2.47%	2.43%	2.45%	2.46%	2.47%	2.48%	2.49%	2.50%	2.51%	2.51%
	Index	1.0474	1.0831	1.1152	1.1457	1.1757	1.2054	1.2353	1.2653	1.2962	1.3281	1.3609	1.3946	1.4293	1.4650	1.5017	1.5395
65th	Percentile	4.56%	3.25%	2.81%	2.59%	2.47%	2.38%	2.33%	2.28%	2.29%	2.30%	2.31%	2.32%	2.33%	2.33%	2.34%	2.34%
	Index	1.0456	1.0796	1.1099	1.1387	1.1668	1.1946	1.2224	1.2503	1.2790	1.3085	1.3387	1.3698	1.4016	1.4343	1.4678	1.5022
60th	Percentile	4.39%	3.10%	2.67%	2.45%	2.33%	2.24%	2.19%	2.14%	2.15%	2.16%	2.16%	2.17%	2.17%	2.18%	2.18%	2.18%
	Index	1.0439	1.0762	1.1050	1.1321	1.1584	1.1844	1.2103	1.2363	1.2629	1.2901	1.3180	1.3465	1.3758	1.4057	1.4363	1.4677
55th	Percentile	4.22%	2.95%	2.53%	2.32%	2.19%	2.11%	2.05%	2.01%	2.01%	2.01%	2.02%	2.02%	2.02%	2.02%	2.03%	2.03%
	Index	1.0422	1.0730	1.1002	1.1257	1.1504	1.1747	1.1987	1.2228	1.2474	1.2725	1.2982	1.3244	1.3512	1.3785	1.4065	1.4350
50th	Percentile	4.06%	2.81%	2.39%	2.19%	2.06%	1.98%	1.92%	1.87%	1.87%	1.87%	1.87%	1.87%	1.87%	1.87%	1.87%	1.87%
	Index	1.0406	1.0699	1.0955	1.1194	1.1425	1.1651	1.1874	1.2097	1.2324	1.2555	1.2790	1.3030	1.3274	1.3523	1.3776	1.4035
45th	Percentile	3.90%	2.67%	2.26%	2.05%	1.93%	1.85%	1.79%	1.74%	1.74%	1.73%	1.73%	1.73%	1.73%	1.73%	1.72%	1.72%
	Index	1.0390	1.0667	1.0908	1.1132	1.1346	1.1556	1.1762	1.1967	1.2175	1.2386	1.2601	1.2819	1.3040	1.3265	1.3494	1.3726
40th	Percentile	3.73%	2.52%	2.12%	1.92%	1.79%	1.71%	1.65%	1.60%	1.60%	1.59%	1.59%	1.58%	1.58%	1.57%	1.57%	1.57%
	Index	1.0373	1.0635	1.0860	1.1069	1.1267	1.1460	1.1649	1.1836	1.2025	1.2217	1.2411	1.2607	1.2806	1.3008	1.3212	1.3419
35th	Percentile	3.56%	2.37%	1.98%	1.78%	1.66%	1.57%	1.51%	1.46%	1.46%	1.45%	1.44%	1.43%	1.42%	1.42%	1.41%	1.41%
	Index	1.0356	1.0602	1.0811	1.1004	1.1186	1.1362	1.1533	1.1702	1.1872	1.2044	1.2217	1.2392	1.2568	1.2747	1.2926	1.3108
30th	Percentile	3.38%	2.22%	1.83%	1.63%	1.51%	1.43%	1.36%	1.32%	1.30%	1.29%	1.28%	1.27%	1.26%	1.25%	1.24%	1.24%
	Index	1.0338	1.0567	1.0760	1.0936	1.1100	1.1259	1.1412	1.1562	1.1713	1.1864	1.2016	1.2169	1.2322	1.2477	1.2632	1.2788
25th	Percentile	3.18%	2.05%	1.67%	1.47%	1.35%	1.27%	1.21%	1.16%	1.14%	1.12%	1.11%	1.10%	1.09%	1.07%	1.06%	1.05%
	Index	1.0318	1.0529	1.0705	1.0862	1.1009	1.1148	1.1283	1.1413	1.1544	1.1673	1.1803	1.1932	1.2062	1.2191	1.2321	1.2451
20th	Percentile	2.96%	1.86%	1.49%	1.29%	1.17%	1.09%	1.03%	0.98%	0.96%	0.94%	0.92%	0.90%	0.89%	0.88%	0.86%	0.85%
	Index	1.0296	1.0488	1.0644	1.0781	1.0908	1.1027	1.1140	1.1249	1.1357	1.1464	1.1569	1.1674	1.1778	1.1881	1.1983	1.2085
15th	Percentile	2.71%	1.64%	1.28%	1.09%	0.97%	0.89%	0.82%	0.77%	0.75%	0.72%	0.70%	0.68%	0.66%	0.64%	0.63%	0.61%
	Index	1.0271	1.0439	1.0572	1.0687	1.0791	1.0886	1.0976	1.1061	1.1143	1.1224	1.1302	1.1379	1.1454	1.1528	1.1600	1.1672
10th	Percentile	2.39%	1.36%	1.01%	0.83%	0.71%	0.63%	0.56%	0.51%	0.48%	0.45%	0.42%	0.40%	0.37%	0.35%	0.33%	0.32%
	Index	1.0239	1.0378	1.0483	1.0570	1.0645	1.0712	1.0772	1.0827	1.0879	1.0928	1.0974	1.1018	1.1059	1.1098	1.1135	1.1170
5th	Percentile	1.92%	0.95%	0.62%	0.44%	0.33%	0.24%	0.18%	0.13%	0.08%	0.04%	0.01%	-0.02%	-0.05%	-0.08%	-0.10%	-0.13%
	Index	1.0192	1.0288	1.0352	1.0398	1.0432	1.0457	1.0476	1.0489	1.0498	1.0503	1.0504	1.0502	1.0496	1.0488	1.0477	1.0464

Projected Non-Nuclear Escalation Rates and Indexes at Pantex Plant															as of 05/01/2023		
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.03%	5.58%	5.12%	4.91%	4.80%	4.73%	4.69%	4.67%	4.73%	4.78%	4.82%	4.86%	4.90%	4.94%	4.97%	5.00%
	Index	1.0703	1.1300	1.1878	1.2461	1.3059	1.3677	1.4319	1.4988	1.5697	1.6447	1.7240	1.8079	1.8965	1.9901	2.0890	2.1935
90th	Percentile	6.50%	5.09%	4.64%	4.43%	4.31%	4.24%	4.20%	4.17%	4.22%	4.26%	4.29%	4.32%	4.35%	4.38%	4.41%	4.43%
	Index	1.0650	1.1191	1.1710	1.2228	1.2756	1.3297	1.3856	1.4434	1.5043	1.5683	1.6356	1.7064	1.7807	1.8587	1.9406	2.0265
85th	Percentile	6.13%	4.76%	4.31%	4.10%	3.99%	3.91%	3.87%	3.84%	3.87%	3.91%	3.93%	3.96%	3.98%	4.01%	4.03%	4.05%
	Index	1.0613	1.1118	1.1597	1.2073	1.2554	1.3046	1.3550	1.4070	1.4615	1.5186	1.5784	1.6409	1.7062	1.7746	1.8460	1.9207
80th	Percentile	5.85%	4.49%	4.05%	3.84%	3.73%	3.65%	3.60%	3.57%	3.60%	3.63%	3.65%	3.67%	3.69%	3.71%	3.72%	3.74%
	Index	1.0585	1.1060	1.1508	1.1951	1.2396	1.2849	1.3312	1.3787	1.4284	1.4801	1.5342	1.5905	1.6491	1.7103	1.7740	1.8403
75th	Percentile	5.60%	4.27%	3.83%	3.62%	3.50%	3.43%	3.38%	3.34%	3.37%	3.39%	3.40%	3.42%	3.44%	3.45%	3.46%	3.48%
	Index	1.0560	1.1010	1.1432	1.1846	1.2261	1.2682	1.3110	1.3548	1.4004	1.4478	1.4971	1.5484	1.6016	1.6568	1.7142	1.7738
70th	Percentile	5.38%	4.06%	3.63%	3.42%	3.30%	3.23%	3.17%	3.14%	3.15%	3.17%	3.19%	3.20%	3.21%	3.22%	3.23%	3.24%
	Index	1.0538	1.0966	1.1364	1.1753	1.2142	1.2533	1.2931	1.3337	1.3757	1.4194	1.4646	1.5114	1.5599	1.6102	1.6622	1.7161
65th	Percentile	5.17%	3.88%	3.45%	3.24%	3.12%	3.04%	2.98%	2.95%	2.96%	2.97%	2.98%	2.99%	3.00%	3.01%	3.02%	3.02%
	Index	1.0517	1.0925	1.1302	1.1668	1.2032	1.2397	1.2767	1.3143	1.3532	1.3934	1.4350	1.4779	1.5222	1.5680	1.6153	1.6642
60th	Percentile	4.98%	3.70%	3.27%	3.07%	2.94%	2.86%	2.81%	2.76%	2.77%	2.78%	2.79%	2.80%	2.80%	2.81%	2.81%	2.82%
	Index	1.0498	1.0886	1.1242	1.1587	1.1928	1.2269	1.2613	1.2962	1.3322	1.3692	1.4074	1.4467	1.4873	1.5290	1.5720	1.6162
55th	Percentile	4.79%	3.52%	3.10%	2.90%	2.77%	2.69%	2.63%	2.59%	2.59%	2.60%	2.60%	2.61%	2.61%	2.61%	2.61%	2.62%
	Index	1.0479	1.0848	1.1185	1.1509	1.1828	1.2146	1.2466	1.2789	1.3121	1.3462	1.3812	1.4172	1.4541	1.4921	1.5311	1.5711
50th	Percentile	4.60%	3.35%	2.94%	2.73%	2.60%	2.52%	2.46%	2.42%	2.42%	2.42%	2.42%	2.42%	2.42%	2.42%	2.42%	2.42%
	Index	1.0460	1.0811	1.1129	1.1433	1.1730	1.2026	1.2322	1.2620	1.2925	1.3238	1.3558	1.3886	1.4222	1.4566	1.4918	1.5279
45th	Percentile	4.42%	3.18%	2.77%	2.56%	2.44%	2.35%	2.29%	2.25%	2.24%	2.24%	2.23%	2.23%	2.23%	2.23%	2.22%	2.22%
	Index	1.0442	1.0774	1.1073	1.1357	1.1634	1.1907	1.2180	1.2454	1.2733	1.3018	1.3309	1.3606	1.3909	1.4218	1.4534	1.4857
40th	Percentile	4.23%	3.01%	2.60%	2.39%	2.27%	2.18%	2.12%	2.07%	2.06%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%	2.02%
	Index	1.0423	1.0737	1.1016	1.1280	1.1536	1.1787	1.2037	1.2286	1.2540	1.2797	1.3059	1.3326	1.3597	1.3873	1.4154	1.4440
35th	Percentile	4.03%	2.83%	2.43%	2.22%	2.09%	2.00%	1.94%	1.89%	1.88%	1.87%	1.85%	1.85%	1.84%	1.83%	1.82%	1.81%
	Index	1.0403	1.0698	1.0958	1.1201	1.1435	1.1665	1.1891	1.2115	1.2343	1.2573	1.2806	1.3043	1.3282	1.3525	1.3771	1.4021
30th	Percentile	3.83%	2.65%	2.24%	2.04%	1.91%	1.82%	1.75%	1.70%	1.68%	1.67%	1.65%	1.64%	1.63%	1.62%	1.60%	1.60%
	Index	1.0383	1.0658	1.0897	1.1119	1.1330	1.1536	1.1738	1.1938	1.2138	1.2341	1.2544	1.2750	1.2957	1.3166	1.3378	1.3591
25th	Percentile	3.61%	2.44%	2.04%	1.84%	1.71%	1.62%	1.55%	1.49%	1.47%	1.45%	1.43%	1.42%	1.40%	1.39%	1.37%	1.36%
	Index	1.0361	1.0614	1.0831	1.1030	1.1218	1.1399	1.1576	1.1748	1.1921	1.2094	1.2267	1.2441	1.2615	1.2790	1.2965	1.3141
20th	Percentile	3.36%	2.22%	1.82%	1.62%	1.48%	1.39%	1.32%	1.26%	1.24%	1.21%	1.19%	1.17%	1.15%	1.13%	1.11%	1.10%
	Index	1.0336	1.0565	1.0758	1.0932	1.1094	1.1248	1.1397	1.1541	1.1683	1.1825	1.1965	1.2105	1.2244	1.2382	1.2520	1.2657
15th	Percentile	3.07%	1.95%	1.57%	1.36%	1.22%	1.13%	1.06%	1.00%	0.96%	0.93%	0.90%	0.88%	0.85%	0.83%	0.81%	0.79%
	Index	1.0307	1.0509	1.0673	1.0818	1.0951	1.1074	1.1191	1.1303	1.1411	1.1518	1.1621	1.1723	1.1823	1.1922	1.2018	1.2113
10th	Percentile	2.71%	1.62%	1.24%	1.03%	0.90%	0.80%	0.72%	0.66%	0.62%	0.58%	0.54%	0.51%	0.48%	0.46%	0.43%	0.41%
	Index	1.0271	1.0438	1.0567	1.0676	1.0772	1.0858	1.0937	1.1009	1.1077	1.1141	1.1202	1.1259	1.1314	1.1365	1.1414	1.1461
5th	Percentile	2.17%	1.13%	0.76%	0.55%	0.41%	0.31%	0.23%	0.16%	0.11%	0.06%	0.01%	-0.03%	-0.07%	-0.10%	-0.13%	-0.16%
	Index	1.0217	1.0333	1.0412	1.0469	1.0512	1.0545	1.0569	1.0586	1.0598	1.0604	1.0605	1.0602	1.0595	1.0585	1.0571	1.0553

Projected Life-Extension Programs Escalation Rates and Indexes at Pantex Plant														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	6.53%	5.03%	4.54%	4.32%	4.19%	4.12%	4.07%	4.04%	4.09%	4.13%	4.17%	4.20%	4.24%	4.27%	4.29%	4.32%
	Index	1.0653	1.1189	1.1698	1.2202	1.2714	1.3237	1.3775	1.4332	1.4917	1.5533	1.6181	1.6861	1.7575	1.8325	1.9112	1.9937
90th	Percentile	6.03%	4.59%	4.12%	3.89%	3.77%	3.69%	3.64%	3.61%	3.65%	3.68%	3.71%	3.74%	3.76%	3.79%	3.81%	3.83%
	Index	1.0603	1.1090	1.1546	1.1996	1.2448	1.2907	1.3377	1.3860	1.4365	1.4893	1.5446	1.6023	1.6626	1.7255	1.7912	1.8598
85th	Percentile	5.70%	4.29%	3.83%	3.61%	3.48%	3.40%	3.35%	3.32%	3.35%	3.37%	3.40%	3.42%	3.44%	3.46%	3.48%	3.50%
	Index	1.0570	1.1023	1.1445	1.1858	1.2271	1.2689	1.3114	1.3549	1.4002	1.4475	1.4967	1.5479	1.6012	1.6566	1.7143	1.7742
80th	Percentile	5.43%	4.05%	3.60%	3.38%	3.26%	3.18%	3.12%	3.09%	3.11%	3.13%	3.15%	3.17%	3.19%	3.20%	3.22%	3.23%
	Index	1.0543	1.0970	1.1365	1.1749	1.2132	1.2517	1.2908	1.3306	1.3720	1.4150	1.4596	1.5059	1.5539	1.6037	1.6553	1.7088
75th	Percentile	5.20%	3.85%	3.40%	3.19%	3.06%	2.98%	2.93%	2.89%	2.91%	2.93%	2.94%	2.96%	2.97%	2.98%	2.99%	3.00%
	Index	1.0520	1.0925	1.1297	1.1657	1.2013	1.2372	1.2734	1.3101	1.3482	1.3877	1.4285	1.4707	1.5144	1.5596	1.6063	1.6545
70th	Percentile	4.99%	3.67%	3.23%	3.01%	2.89%	2.81%	2.75%	2.71%	2.73%	2.74%	2.75%	2.76%	2.77%	2.78%	2.79%	2.80%
	Index	1.0499	1.0884	1.1235	1.1574	1.1908	1.2242	1.2579	1.2919	1.3272	1.3635	1.4011	1.4398	1.4797	1.5209	1.5634	1.6072
65th	Percentile	4.80%	3.50%	3.06%	2.85%	2.72%	2.64%	2.59%	2.55%	2.56%	2.57%	2.58%	2.58%	2.59%	2.60%	2.61%	2.61%
	Index	1.0480	1.0847	1.1179	1.1497	1.1811	1.2123	1.2436	1.2753	1.3079	1.3415	1.3761	1.4116	1.4482	1.4859	1.5246	1.5644
60th	Percentile	4.62%	3.33%	2.91%	2.70%	2.57%	2.49%	2.43%	2.39%	2.40%	2.40%	2.41%	2.42%	2.42%	2.42%	2.43%	2.43%
	Index	1.0462	1.0811	1.1125	1.1425	1.1719	1.2011	1.2303	1.2597	1.2899	1.3209	1.3527	1.3854	1.4189	1.4533	1.4886	1.5248
55th	Percentile	4.45%	3.18%	2.76%	2.55%	2.42%	2.34%	2.28%	2.24%	2.24%	2.25%	2.25%	2.25%	2.25%	2.26%	2.26%	2.26%
	Index	1.0445	1.0777	1.1074	1.1356	1.1631	1.1903	1.2175	1.2447	1.2726	1.3012	1.3305	1.3604	1.3911	1.4225	1.4546	1.4874
50th	Percentile	4.28%	3.03%	2.61%	2.40%	2.28%	2.19%	2.13%	2.09%	2.09%	2.09%	2.09%	2.09%	2.09%	2.09%	2.09%	2.09%
	Index	1.0428	1.0743	1.1023	1.1288	1.1545	1.1798	1.2050	1.2302	1.2559	1.2821	1.3089	1.3362	1.3642	1.3927	1.4218	1.4515
45th	Percentile	4.10%	2.87%	2.46%	2.25%	2.13%	2.05%	1.99%	1.94%	1.94%	1.93%	1.93%	1.93%	1.93%	1.92%	1.92%	1.92%
	Index	1.0410	1.0709	1.0973	1.1220	1.1459	1.1694	1.1926	1.2157	1.2393	1.2633	1.2876	1.3125	1.3377	1.3635	1.3897	1.4163
40th	Percentile	3.93%	2.72%	2.31%	2.11%	1.98%	1.90%	1.84%	1.79%	1.78%	1.78%	1.77%	1.76%	1.76%	1.75%	1.75%	1.75%
	Index	1.0393	1.0675	1.0922	1.1152	1.1373	1.1589	1.1801	1.2012	1.2226	1.2444	1.2664	1.2887	1.3114	1.3344	1.3577	1.3814
35th	Percentile	3.75%	2.56%	2.16%	1.95%	1.83%	1.74%	1.68%	1.63%	1.62%	1.61%	1.60%	1.59%	1.59%	1.58%	1.57%	1.57%
	Index	1.0375	1.0640	1.0869	1.1081	1.1284	1.1481	1.1674	1.1864	1.2057	1.2251	1.2447	1.2646	1.2846	1.3049	1.3255	1.3462
30th	Percentile	3.56%	2.39%	1.99%	1.79%	1.67%	1.58%	1.52%	1.47%	1.45%	1.44%	1.43%	1.42%	1.41%	1.40%	1.39%	1.38%
	Index	1.0356	1.0603	1.0814	1.1008	1.1191	1.1368	1.1540	1.1710	1.1880	1.2051	1.2223	1.2396	1.2570	1.2745	1.2922	1.3100
25th	Percentile	3.35%	2.20%	1.82%	1.62%	1.49%	1.40%	1.34%	1.29%	1.27%	1.25%	1.24%	1.22%	1.21%	1.20%	1.19%	1.17%
	Index	1.0335	1.0563	1.0755	1.0928	1.1091	1.1247	1.1398	1.1545	1.1692	1.1838	1.1985	1.2131	1.2278	1.2425	1.2572	1.2720
20th	Percentile	3.12%	2.00%	1.62%	1.42%	1.30%	1.21%	1.14%	1.09%	1.07%	1.05%	1.03%	1.01%	0.99%	0.98%	0.96%	0.95%
	Index	1.0312	1.0518	1.0689	1.0841	1.0981	1.1114	1.1241	1.1364	1.1485	1.1605	1.1724	1.1843	1.1960	1.2077	1.2193	1.2308
15th	Percentile	2.85%	1.76%	1.39%	1.19%	1.07%	0.98%	0.91%	0.86%	0.83%	0.80%	0.78%	0.76%	0.74%	0.72%	0.70%	0.68%
	Index	1.0285	1.0467	1.0612	1.0739	1.0854	1.0960	1.1061	1.1156	1.1249	1.1339	1.1427	1.1514	1.1599	1.1682	1.1764	1.1845
10th	Percentile	2.52%	1.46%	1.10%	0.91%	0.78%	0.70%	0.63%	0.57%	0.53%	0.50%	0.47%	0.44%	0.42%	0.39%	0.37%	0.35%
	Index	1.0252	1.0402	1.0516	1.0612	1.0695	1.0770	1.0837	1.0899	1.0957	1.1012	1.1064	1.1113	1.1159	1.1203	1.1245	1.1284
5th	Percentile	2.02%	1.02%	0.67%	0.49%	0.36%	0.27%	0.20%	0.14%	0.09%	0.05%	0.01%	-0.02%	-0.06%	-0.09%	-0.12%	-0.14%
	Index	1.0202	1.0306	1.0376	1.0426	1.0464	1.0492	1.0513	1.0528	1.0537	1.0543	1.0544	1.0541	1.0535	1.0526	1.0514	1.0499

Projected Nuclear Escalation Rates and Indexes at Y-12 National Security Complex (Y-12)															as of 05/01/2023		
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.04%	5.59%	5.13%	4.92%	4.81%	4.75%	4.71%	4.69%	4.74%	4.79%	4.84%	4.88%	4.92%	4.95%	4.98%	5.02%
	Index	1.0704	1.1303	1.1882	1.2467	1.3067	1.3687	1.4331	1.5003	1.5714	1.6467	1.7264	1.8106	1.8997	1.9937	2.0931	2.1981
90th	Percentile	6.51%	5.10%	4.65%	4.44%	4.32%	4.26%	4.21%	4.19%	4.23%	4.27%	4.31%	4.34%	4.37%	4.39%	4.42%	4.44%
	Index	1.0651	1.1194	1.1714	1.2234	1.2763	1.3306	1.3866	1.4447	1.5058	1.5701	1.6377	1.7087	1.7834	1.8617	1.9440	2.0304
85th	Percentile	6.14%	4.77%	4.32%	4.11%	4.00%	3.93%	3.88%	3.85%	3.89%	3.92%	3.95%	3.97%	4.00%	4.02%	4.04%	4.06%
	Index	1.0614	1.1120	1.1601	1.2078	1.2561	1.3054	1.3560	1.4082	1.4629	1.5202	1.5802	1.6430	1.7086	1.7773	1.8490	1.9240
80th	Percentile	5.86%	4.50%	4.06%	3.85%	3.74%	3.66%	3.61%	3.58%	3.61%	3.64%	3.66%	3.68%	3.70%	3.72%	3.73%	3.75%
	Index	1.0586	1.1062	1.1512	1.1955	1.2402	1.2856	1.3321	1.3798	1.4296	1.4816	1.5358	1.5924	1.6513	1.7127	1.7767	1.8433
75th	Percentile	5.61%	4.28%	3.84%	3.63%	3.51%	3.44%	3.39%	3.35%	3.38%	3.40%	3.41%	3.43%	3.45%	3.46%	3.47%	3.49%
	Index	1.0561	1.1012	1.1435	1.1851	1.2267	1.2689	1.3118	1.3558	1.4016	1.4492	1.4987	1.5501	1.6035	1.6591	1.7167	1.7766
70th	Percentile	5.39%	4.07%	3.64%	3.43%	3.31%	3.24%	3.18%	3.15%	3.16%	3.18%	3.19%	3.21%	3.22%	3.23%	3.24%	3.25%
	Index	1.0539	1.0968	1.1367	1.1757	1.2147	1.2540	1.2939	1.3346	1.3768	1.4206	1.4660	1.5130	1.5617	1.6122	1.6645	1.7186
65th	Percentile	5.18%	3.88%	3.46%	3.25%	3.13%	3.05%	2.99%	2.95%	2.97%	2.98%	2.99%	3.00%	3.01%	3.02%	3.02%	3.03%
	Index	1.0518	1.0927	1.1304	1.1672	1.2036	1.2403	1.2775	1.3152	1.3542	1.3946	1.4363	1.4794	1.5239	1.5699	1.6174	1.6664
60th	Percentile	4.99%	3.70%	3.28%	3.07%	2.95%	2.87%	2.81%	2.77%	2.78%	2.79%	2.80%	2.80%	2.81%	2.81%	2.82%	2.82%
	Index	1.0499	1.0888	1.1245	1.1590	1.1932	1.2275	1.2620	1.2970	1.3331	1.3703	1.4086	1.4481	1.4888	1.5307	1.5739	1.6183
55th	Percentile	4.80%	3.53%	3.11%	2.90%	2.78%	2.70%	2.64%	2.60%	2.60%	2.61%	2.61%	2.61%	2.62%	2.62%	2.62%	2.62%
	Index	1.0480	1.0850	1.1187	1.1512	1.1832	1.2152	1.2472	1.2796	1.3129	1.3472	1.3823	1.4184	1.4555	1.4937	1.5328	1.5730
50th	Percentile	4.61%	3.36%	2.95%	2.74%	2.61%	2.53%	2.47%	2.42%	2.43%	2.43%	2.43%	2.43%	2.43%	2.43%	2.43%	2.43%
	Index	1.0461	1.0813	1.1131	1.1436	1.1735	1.2031	1.2328	1.2627	1.2934	1.3247	1.3569	1.3898	1.4235	1.4580	1.4934	1.5296
45th	Percentile	4.43%	3.19%	2.78%	2.57%	2.44%	2.36%	2.30%	2.25%	2.25%	2.24%	2.24%	2.24%	2.24%	2.23%	2.23%	2.23%
	Index	1.0443	1.0776	1.1075	1.1360	1.1637	1.1912	1.2186	1.2460	1.2740	1.3026	1.3318	1.3616	1.3921	1.4231	1.4549	1.4873
40th	Percentile	4.24%	3.02%	2.61%	2.40%	2.27%	2.19%	2.12%	2.08%	2.07%	2.06%	2.05%	2.05%	2.04%	2.04%	2.03%	2.03%
	Index	1.0424	1.0738	1.1018	1.1283	1.1539	1.1792	1.2042	1.2292	1.2547	1.2805	1.3068	1.3336	1.3608	1.3885	1.4167	1.4454
35th	Percentile	4.04%	2.84%	2.43%	2.23%	2.10%	2.01%	1.94%	1.89%	1.88%	1.87%	1.86%	1.85%	1.84%	1.83%	1.83%	1.82%
	Index	1.0404	1.0700	1.0960	1.1204	1.1439	1.1669	1.1896	1.2121	1.2349	1.2580	1.2814	1.3051	1.3292	1.3536	1.3783	1.4033
30th	Percentile	3.84%	2.65%	2.25%	2.04%	1.91%	1.82%	1.76%	1.70%	1.69%	1.67%	1.66%	1.64%	1.63%	1.62%	1.61%	1.60%
	Index	1.0384	1.0659	1.0899	1.1121	1.1334	1.1540	1.1743	1.1943	1.2144	1.2347	1.2552	1.2758	1.2966	1.3176	1.3388	1.3602
25th	Percentile	3.61%	2.45%	2.05%	1.84%	1.71%	1.62%	1.55%	1.50%	1.48%	1.45%	1.44%	1.42%	1.40%	1.39%	1.38%	1.36%
	Index	1.0361	1.0615	1.0833	1.1032	1.1221	1.1403	1.1579	1.1753	1.1926	1.2100	1.2273	1.2448	1.2622	1.2798	1.2974	1.3151
20th	Percentile	3.37%	2.22%	1.83%	1.62%	1.49%	1.39%	1.32%	1.27%	1.24%	1.21%	1.19%	1.17%	1.15%	1.13%	1.12%	1.10%
	Index	1.0337	1.0566	1.0759	1.0934	1.1096	1.1251	1.1400	1.1545	1.1688	1.1830	1.1970	1.2110	1.2250	1.2389	1.2527	1.2665
15th	Percentile	3.08%	1.96%	1.57%	1.36%	1.23%	1.13%	1.06%	1.00%	0.97%	0.93%	0.91%	0.88%	0.86%	0.83%	0.81%	0.79%
	Index	1.0308	1.0510	1.0675	1.0820	1.0953	1.1077	1.1194	1.1306	1.1415	1.1521	1.1626	1.1728	1.1828	1.1927	1.2024	1.2119
10th	Percentile	2.72%	1.63%	1.24%	1.04%	0.90%	0.80%	0.72%	0.66%	0.62%	0.58%	0.55%	0.51%	0.48%	0.46%	0.43%	0.41%
	Index	1.0272	1.0439	1.0568	1.0678	1.0774	1.0860	1.0939	1.1012	1.1080	1.1144	1.1205	1.1263	1.1317	1.1369	1.1418	1.1464
5th	Percentile	2.18%	1.13%	0.76%	0.55%	0.42%	0.31%	0.23%	0.16%	0.11%	0.06%	0.01%	-0.03%	-0.07%	-0.10%	-0.13%	-0.16%
	Index	1.0218	1.0334	1.0412	1.0470	1.0513	1.0546	1.0571	1.0588	1.0599	1.0605	1.0607	1.0604	1.0597	1.0586	1.0572	1.0555

Projected Non-Nuclear Escalation Rates and Indexes at Y-12 National Security Complex (Y-12)													as of 05/01/2023				
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.90%	6.52%	6.10%	5.92%	5.84%	5.79%	5.77%	5.76%	5.83%	5.89%	5.95%	6.00%	6.05%	6.09%	6.13%	6.17%
	Index	1.0790	1.1493	1.2194	1.2916	1.3670	1.4461	1.5296	1.6177	1.7121	1.8130	1.9209	2.0362	2.1593	2.2908	2.4313	2.5812
90th	Percentile	7.29%	5.94%	5.53%	5.34%	5.25%	5.19%	5.16%	5.15%	5.20%	5.25%	5.29%	5.33%	5.37%	5.40%	5.44%	5.46%
	Index	1.0729	1.1367	1.1995	1.2636	1.3299	1.3990	1.4712	1.5470	1.6275	1.7129	1.8036	1.8998	2.0019	2.1101	2.2247	2.3463
85th	Percentile	6.89%	5.56%	5.14%	4.95%	4.85%	4.79%	4.76%	4.73%	4.78%	4.82%	4.85%	4.88%	4.91%	4.94%	4.97%	4.99%
	Index	1.0689	1.1283	1.1862	1.2450	1.3053	1.3679	1.4329	1.5008	1.5725	1.6483	1.7282	1.8126	1.9017	1.9957	2.0948	2.1993
80th	Percentile	6.56%	5.25%	4.83%	4.64%	4.53%	4.47%	4.43%	4.41%	4.44%	4.47%	4.50%	4.53%	4.55%	4.57%	4.59%	4.61%
	Index	1.0656	1.1216	1.1758	1.2303	1.2861	1.3436	1.4031	1.4649	1.5300	1.5984	1.6704	1.7460	1.8254	1.9089	1.9966	2.0887
75th	Percentile	6.29%	4.98%	4.57%	4.37%	4.26%	4.20%	4.15%	4.12%	4.15%	4.18%	4.20%	4.22%	4.24%	4.26%	4.27%	4.29%
	Index	1.0629	1.1158	1.1668	1.2178	1.2697	1.3230	1.3779	1.4348	1.4943	1.5567	1.6221	1.6906	1.7623	1.8373	1.9158	1.9980
70th	Percentile	6.04%	4.75%	4.33%	4.13%	4.02%	3.95%	3.90%	3.87%	3.89%	3.91%	3.93%	3.95%	3.96%	3.97%	3.99%	4.00%
	Index	1.0604	1.1107	1.1588	1.2067	1.2552	1.3048	1.3557	1.4081	1.4629	1.5202	1.5799	1.6422	1.7072	1.7751	1.8458	1.9196
65th	Percentile	5.81%	4.53%	4.11%	3.91%	3.79%	3.72%	3.67%	3.63%	3.65%	3.67%	3.68%	3.69%	3.70%	3.71%	3.72%	3.73%
	Index	1.0581	1.1060	1.1514	1.1965	1.2419	1.2881	1.3353	1.3839	1.4344	1.4869	1.5416	1.5985	1.6577	1.7192	1.7832	1.8496
60th	Percentile	5.59%	4.32%	3.90%	3.70%	3.58%	3.50%	3.45%	3.41%	3.42%	3.43%	3.44%	3.45%	3.45%	3.46%	3.47%	3.47%
	Index	1.0559	1.1015	1.1445	1.1868	1.2293	1.2724	1.3163	1.3612	1.4077	1.4560	1.5061	1.5581	1.6119	1.6677	1.7255	1.7854
55th	Percentile	5.38%	4.12%	3.70%	3.50%	3.37%	3.29%	3.24%	3.19%	3.20%	3.21%	3.21%	3.21%	3.22%	3.22%	3.22%	3.23%
	Index	1.0538	1.0972	1.1378	1.1775	1.2173	1.2573	1.2980	1.3395	1.3824	1.4267	1.4725	1.5198	1.5687	1.6192	1.6714	1.7253
50th	Percentile	5.17%	3.92%	3.50%	3.29%	3.17%	3.09%	3.03%	2.98%	2.98%	2.98%	2.98%	2.98%	2.98%	2.98%	2.98%	2.98%
	Index	1.0517	1.0929	1.1312	1.1685	1.2055	1.2427	1.2803	1.3185	1.3578	1.3983	1.4400	1.4830	1.5272	1.5728	1.6197	1.6680
45th	Percentile	4.96%	3.72%	3.30%	3.09%	2.97%	2.88%	2.82%	2.77%	2.77%	2.76%	2.76%	2.75%	2.75%	2.75%	2.74%	2.74%
	Index	1.0496	1.0887	1.1246	1.1594	1.1938	1.2282	1.2628	1.2978	1.3336	1.3705	1.4082	1.4470	1.4868	1.5276	1.5695	1.6125
40th	Percentile	4.75%	3.52%	3.10%	2.89%	2.76%	2.67%	2.60%	2.55%	2.54%	2.53%	2.53%	2.52%	2.51%	2.50%	2.50%	2.49%
	Index	1.0475	1.0843	1.1180	1.1503	1.1820	1.2136	1.2452	1.2770	1.3095	1.3427	1.3766	1.4112	1.4467	1.4829	1.5200	1.5578
35th	Percentile	4.53%	3.31%	2.89%	2.68%	2.55%	2.45%	2.38%	2.33%	2.32%	2.30%	2.29%	2.28%	2.27%	2.26%	2.25%	2.24%
	Index	1.0453	1.0799	1.1112	1.1409	1.1700	1.1987	1.2272	1.2558	1.2849	1.3145	1.3445	1.3751	1.4063	1.4380	1.4703	1.5032
30th	Percentile	4.30%	3.09%	2.67%	2.46%	2.32%	2.22%	2.15%	2.10%	2.07%	2.05%	2.04%	2.02%	2.01%	1.99%	1.98%	1.97%
	Index	1.0430	1.0752	1.1040	1.1311	1.1573	1.1831	1.2085	1.2339	1.2595	1.2853	1.3115	1.3380	1.3649	1.3921	1.4196	1.4476
25th	Percentile	4.05%	2.85%	2.44%	2.22%	2.08%	1.98%	1.90%	1.84%	1.81%	1.79%	1.77%	1.75%	1.73%	1.71%	1.69%	1.68%
	Index	1.0405	1.0702	1.0963	1.1206	1.1439	1.1665	1.1886	1.2105	1.2325	1.2546	1.2767	1.2990	1.3214	1.3440	1.3668	1.3897
20th	Percentile	3.77%	2.59%	2.17%	1.95%	1.81%	1.70%	1.62%	1.56%	1.52%	1.49%	1.46%	1.44%	1.42%	1.39%	1.37%	1.35%
	Index	1.0377	1.0646	1.0878	1.1090	1.1290	1.1482	1.1668	1.1850	1.2031	1.2211	1.2389	1.2568	1.2746	1.2923	1.3100	1.3278
15th	Percentile	3.45%	2.28%	1.87%	1.64%	1.49%	1.38%	1.30%	1.23%	1.19%	1.15%	1.11%	1.08%	1.05%	1.03%	1.00%	0.98%
	Index	1.0345	1.0581	1.0779	1.0955	1.1118	1.1272	1.1418	1.1559	1.1696	1.1830	1.1962	1.2091	1.2219	1.2344	1.2467	1.2589
10th	Percentile	3.04%	1.90%	1.48%	1.25%	1.09%	0.98%	0.89%	0.82%	0.76%	0.71%	0.67%	0.63%	0.60%	0.56%	0.53%	0.50%
	Index	1.0304	1.0500	1.0655	1.0788	1.0906	1.1012	1.1110	1.1201	1.1286	1.1367	1.1443	1.1515	1.1584	1.1649	1.1711	1.1770
5th	Percentile	2.44%	1.32%	0.91%	0.67%	0.50%	0.38%	0.28%	0.20%	0.13%	0.07%	0.02%	-0.03%	-0.08%	-0.12%	-0.16%	-0.20%
	Index	1.0244	1.0380	1.0474	1.0543	1.0596	1.0637	1.0667	1.0688	1.0702	1.0710	1.0712	1.0708	1.0699	1.0686	1.0669	1.0647

Projected Life-Extension Programs Escalation Rates and Indexes at Y-12 National Security Complex (Y-12)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	6.47%	4.97%	4.48%	4.25%	4.12%	4.04%	3.99%	3.96%	4.01%	4.05%	4.09%	4.12%	4.16%	4.19%	4.21%	4.24%
	Index	1.0647	1.1176	1.1676	1.2172	1.2673	1.3185	1.3711	1.4254	1.4826	1.5427	1.6057	1.6720	1.7415	1.8143	1.8908	1.9709
90th	Percentile	5.98%	4.53%	4.05%	3.83%	3.70%	3.62%	3.57%	3.54%	3.58%	3.61%	3.64%	3.67%	3.69%	3.71%	3.74%	3.76%
	Index	1.0598	1.1078	1.1527	1.1968	1.2411	1.2861	1.3321	1.3792	1.4285	1.4801	1.5339	1.5902	1.6489	1.7101	1.7740	1.8406
85th	Percentile	5.64%	4.23%	3.77%	3.55%	3.42%	3.34%	3.29%	3.25%	3.28%	3.31%	3.34%	3.36%	3.38%	3.40%	3.41%	3.43%
	Index	1.0564	1.1012	1.1427	1.1832	1.2237	1.2646	1.3062	1.3487	1.3930	1.4392	1.4872	1.5371	1.5890	1.6430	1.6990	1.7573
80th	Percentile	5.38%	4.00%	3.55%	3.33%	3.20%	3.12%	3.07%	3.03%	3.05%	3.07%	3.09%	3.11%	3.13%	3.14%	3.16%	3.17%
	Index	1.0538	1.0959	1.1348	1.1725	1.2100	1.2478	1.2860	1.3250	1.3654	1.4074	1.4509	1.4961	1.5429	1.5913	1.6416	1.6936
75th	Percentile	5.15%	3.80%	3.35%	3.13%	3.01%	2.93%	2.87%	2.83%	2.85%	2.87%	2.89%	2.90%	2.91%	2.93%	2.94%	2.95%
	Index	1.0515	1.0915	1.1280	1.1634	1.1984	1.2335	1.2689	1.3048	1.3421	1.3806	1.4205	1.4617	1.5043	1.5483	1.5937	1.6407
70th	Percentile	4.95%	3.62%	3.18%	2.96%	2.84%	2.76%	2.70%	2.66%	2.67%	2.69%	2.70%	2.71%	2.72%	2.73%	2.74%	2.75%
	Index	1.0495	1.0874	1.1220	1.1552	1.1880	1.2207	1.2537	1.2870	1.3214	1.3570	1.3936	1.4314	1.4703	1.5105	1.5519	1.5945
65th	Percentile	4.76%	3.45%	3.02%	2.80%	2.68%	2.60%	2.54%	2.50%	2.51%	2.52%	2.53%	2.54%	2.54%	2.55%	2.56%	2.56%
	Index	1.0476	1.0837	1.1164	1.1477	1.1784	1.2090	1.2397	1.2707	1.3026	1.3354	1.3691	1.4039	1.4396	1.4763	1.5140	1.5528
60th	Percentile	4.58%	3.29%	2.86%	2.65%	2.53%	2.44%	2.39%	2.34%	2.35%	2.36%	2.36%	2.37%	2.37%	2.38%	2.38%	2.39%
	Index	1.0458	1.0802	1.1112	1.1406	1.1694	1.1980	1.2266	1.2554	1.2849	1.3152	1.3463	1.3782	1.4109	1.4445	1.4789	1.5142
55th	Percentile	4.41%	3.14%	2.72%	2.51%	2.38%	2.30%	2.24%	2.20%	2.20%	2.20%	2.21%	2.21%	2.21%	2.21%	2.22%	2.22%
	Index	1.0441	1.0768	1.1061	1.1338	1.1608	1.1874	1.2140	1.2407	1.2680	1.2959	1.3245	1.3537	1.3837	1.4143	1.4456	1.4777
50th	Percentile	4.24%	2.99%	2.57%	2.36%	2.24%	2.15%	2.09%	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%	2.05%
	Index	1.0424	1.0735	1.1011	1.1271	1.1523	1.1771	1.2017	1.2264	1.2515	1.2772	1.3034	1.3301	1.3574	1.3852	1.4136	1.4426
45th	Percentile	4.07%	2.84%	2.42%	2.22%	2.09%	2.01%	1.95%	1.90%	1.90%	1.90%	1.89%	1.89%	1.89%	1.89%	1.88%	1.88%
	Index	1.0407	1.0702	1.0961	1.1204	1.1439	1.1668	1.1896	1.2122	1.2353	1.2587	1.2825	1.3068	1.3315	1.3566	1.3822	1.4082
40th	Percentile	3.89%	2.68%	2.28%	2.07%	1.95%	1.86%	1.80%	1.75%	1.75%	1.74%	1.74%	1.73%	1.73%	1.72%	1.72%	1.71%
	Index	1.0389	1.0668	1.0911	1.1137	1.1353	1.1565	1.1773	1.1980	1.2189	1.2402	1.2617	1.2835	1.3057	1.3282	1.3510	1.3741
35th	Percentile	3.71%	2.52%	2.12%	1.92%	1.80%	1.71%	1.65%	1.60%	1.59%	1.58%	1.57%	1.56%	1.56%	1.55%	1.54%	1.54%
	Index	1.0371	1.0633	1.0859	1.1067	1.1266	1.1459	1.1648	1.1834	1.2023	1.2213	1.2405	1.2599	1.2795	1.2993	1.3194	1.3397
30th	Percentile	3.52%	2.36%	1.96%	1.76%	1.64%	1.55%	1.49%	1.44%	1.43%	1.41%	1.40%	1.39%	1.38%	1.37%	1.36%	1.35%
	Index	1.0352	1.0596	1.0804	1.0994	1.1174	1.1348	1.1517	1.1682	1.1849	1.2016	1.2185	1.2354	1.2524	1.2696	1.2868	1.3042
25th	Percentile	3.32%	2.17%	1.79%	1.59%	1.47%	1.38%	1.32%	1.27%	1.25%	1.23%	1.21%	1.20%	1.19%	1.17%	1.16%	1.15%
	Index	1.0332	1.0557	1.0745	1.0916	1.1076	1.1229	1.1377	1.1521	1.1664	1.1808	1.1951	1.2094	1.2238	1.2382	1.2526	1.2670
20th	Percentile	3.09%	1.97%	1.59%	1.40%	1.27%	1.19%	1.12%	1.07%	1.05%	1.03%	1.01%	0.99%	0.97%	0.96%	0.94%	0.93%
	Index	1.0309	1.0513	1.0680	1.0830	1.0968	1.1098	1.1222	1.1343	1.1462	1.1579	1.1696	1.1811	1.1926	1.2040	1.2154	1.2267
15th	Percentile	2.83%	1.74%	1.37%	1.17%	1.05%	0.96%	0.90%	0.84%	0.82%	0.79%	0.77%	0.74%	0.72%	0.70%	0.69%	0.67%
	Index	1.0283	1.0462	1.0605	1.0729	1.0842	1.0947	1.1045	1.1138	1.1229	1.1318	1.1404	1.1489	1.1572	1.1654	1.1734	1.1813
10th	Percentile	2.49%	1.44%	1.08%	0.89%	0.77%	0.68%	0.61%	0.56%	0.52%	0.49%	0.46%	0.43%	0.41%	0.39%	0.36%	0.34%
	Index	1.0249	1.0397	1.0510	1.0604	1.0686	1.0759	1.0825	1.0886	1.0943	1.0996	1.1047	1.1095	1.1141	1.1184	1.1224	1.1263
5th	Percentile	2.00%	1.01%	0.66%	0.48%	0.36%	0.27%	0.20%	0.14%	0.09%	0.05%	0.01%	-0.02%	-0.06%	-0.09%	-0.11%	-0.14%
	Index	1.0200	1.0303	1.0371	1.0421	1.0458	1.0486	1.0506	1.0521	1.0530	1.0535	1.0537	1.0534	1.0528	1.0519	1.0507	1.0493

Projected Nuclear Escalation Rates and Indexes at Kansas City National Security Campus (KCNSC)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	6.78%	5.30%	4.82%	4.61%	4.49%	4.42%	4.37%	4.35%	4.40%	4.45%	4.49%	4.53%	4.56%	4.59%	4.62%	4.65%
	Index	1.0678	1.1243	1.1786	1.2329	1.2882	1.3451	1.4039	1.4650	1.5294	1.5974	1.6691	1.7447	1.8243	1.9081	1.9964	2.0893
90th	Percentile	6.26%	4.83%	4.37%	4.15%	4.03%	3.96%	3.91%	3.88%	3.93%	3.96%	3.99%	4.02%	4.05%	4.08%	4.10%	4.12%
	Index	1.0626	1.1139	1.1626	1.2109	1.2598	1.3097	1.3609	1.4138	1.4693	1.5275	1.5885	1.6525	1.7194	1.7895	1.8629	1.9397
85th	Percentile	5.91%	4.52%	4.06%	3.85%	3.73%	3.65%	3.60%	3.57%	3.61%	3.63%	3.66%	3.68%	3.71%	3.73%	3.75%	3.76%
	Index	1.0591	1.1070	1.1519	1.1963	1.2409	1.2862	1.3326	1.3802	1.4300	1.4819	1.5362	1.5928	1.6518	1.7134	1.7776	1.8445
80th	Percentile	5.63%	4.27%	3.82%	3.61%	3.49%	3.41%	3.36%	3.32%	3.35%	3.37%	3.40%	3.42%	3.43%	3.45%	3.47%	3.48%
	Index	1.0563	1.1014	1.1435	1.1848	1.2261	1.2679	1.3104	1.3540	1.3993	1.4466	1.4957	1.5468	1.5999	1.6551	1.7124	1.7720
75th	Percentile	5.40%	4.05%	3.61%	3.40%	3.28%	3.20%	3.15%	3.11%	3.13%	3.15%	3.17%	3.18%	3.20%	3.21%	3.22%	3.24%
	Index	1.0540	1.0967	1.1363	1.1749	1.2134	1.2523	1.2917	1.3318	1.3736	1.4168	1.4617	1.5083	1.5565	1.6065	1.6583	1.7119
70th	Percentile	5.18%	3.86%	3.43%	3.21%	3.09%	3.01%	2.96%	2.92%	2.94%	2.95%	2.96%	2.98%	2.99%	3.00%	3.01%	3.02%
	Index	1.0518	1.0924	1.1298	1.1661	1.2022	1.2384	1.2750	1.3122	1.3507	1.3906	1.4318	1.4744	1.5185	1.5640	1.6110	1.6596
65th	Percentile	4.98%	3.68%	3.25%	3.04%	2.92%	2.84%	2.78%	2.74%	2.75%	2.77%	2.77%	2.78%	2.79%	2.80%	2.81%	2.81%
	Index	1.0498	1.0885	1.1239	1.1581	1.1918	1.2257	1.2597	1.2943	1.3299	1.3667	1.4046	1.4437	1.4840	1.5256	1.5684	1.6125
60th	Percentile	4.80%	3.51%	3.09%	2.88%	2.75%	2.67%	2.61%	2.57%	2.58%	2.59%	2.60%	2.60%	2.61%	2.61%	2.62%	2.62%
	Index	1.0480	1.0848	1.1183	1.1504	1.1821	1.2137	1.2454	1.2774	1.3104	1.3443	1.3792	1.4151	1.4520	1.4899	1.5289	1.5690
55th	Percentile	4.61%	3.35%	2.93%	2.72%	2.59%	2.51%	2.45%	2.41%	2.41%	2.42%	2.42%	2.42%	2.43%	2.43%	2.43%	2.43%
	Index	1.0461	1.0812	1.1128	1.1431	1.1727	1.2022	1.2317	1.2613	1.2918	1.3230	1.3551	1.3879	1.4216	1.4561	1.4916	1.5279
50th	Percentile	4.44%	3.19%	2.77%	2.56%	2.44%	2.35%	2.29%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%	2.25%
	Index	1.0444	1.0776	1.1075	1.1359	1.1635	1.1909	1.2183	1.2457	1.2737	1.3024	1.3317	1.3616	1.3923	1.4236	1.4556	1.4884
45th	Percentile	4.26%	3.03%	2.61%	2.41%	2.28%	2.20%	2.14%	2.09%	2.09%	2.08%	2.08%	2.08%	2.07%	2.07%	2.07%	2.07%
	Index	1.0426	1.0741	1.1022	1.1287	1.1544	1.1798	1.2050	1.2302	1.2558	1.2820	1.3086	1.3358	1.3635	1.3918	1.4205	1.4499
40th	Percentile	4.08%	2.86%	2.45%	2.25%	2.12%	2.04%	1.97%	1.93%	1.92%	1.91%	1.91%	1.90%	1.89%	1.89%	1.88%	1.88%
	Index	1.0408	1.0705	1.0968	1.1214	1.1452	1.1686	1.1916	1.2146	1.2379	1.2616	1.2856	1.3100	1.3348	1.3601	1.3857	1.4117
35th	Percentile	3.89%	2.69%	2.29%	2.08%	1.96%	1.87%	1.81%	1.76%	1.75%	1.74%	1.73%	1.72%	1.71%	1.70%	1.69%	1.69%
	Index	1.0389	1.0668	1.0913	1.1140	1.1358	1.1570	1.1779	1.1987	1.2196	1.2408	1.2622	1.2838	1.3058	1.3280	1.3505	1.3733
30th	Percentile	3.69%	2.51%	2.12%	1.91%	1.78%	1.70%	1.63%	1.58%	1.56%	1.55%	1.54%	1.52%	1.51%	1.50%	1.49%	1.48%
	Index	1.0369	1.0630	1.0854	1.1062	1.1259	1.1450	1.1637	1.1821	1.2006	1.2192	1.2379	1.2568	1.2758	1.2950	1.3143	1.3338
25th	Percentile	3.48%	2.32%	1.93%	1.72%	1.60%	1.51%	1.44%	1.39%	1.37%	1.35%	1.33%	1.32%	1.30%	1.29%	1.28%	1.27%
	Index	1.0348	1.0588	1.0792	1.0978	1.1153	1.1321	1.1484	1.1644	1.1803	1.1963	1.2122	1.2282	1.2442	1.2602	1.2763	1.2925
20th	Percentile	3.24%	2.11%	1.72%	1.52%	1.39%	1.30%	1.23%	1.18%	1.15%	1.13%	1.11%	1.09%	1.07%	1.05%	1.04%	1.02%
	Index	1.0324	1.0541	1.0722	1.0885	1.1036	1.1179	1.1317	1.1450	1.1582	1.1712	1.1842	1.1970	1.2098	1.2225	1.2352	1.2478
15th	Percentile	2.96%	1.86%	1.48%	1.27%	1.15%	1.05%	0.98%	0.93%	0.90%	0.87%	0.84%	0.82%	0.79%	0.77%	0.75%	0.74%
	Index	1.0296	1.0487	1.0642	1.0778	1.0901	1.1016	1.1124	1.1227	1.1328	1.1426	1.1522	1.1616	1.1708	1.1799	1.1888	1.1975
10th	Percentile	2.61%	1.54%	1.17%	0.97%	0.84%	0.75%	0.67%	0.61%	0.57%	0.54%	0.51%	0.48%	0.45%	0.42%	0.40%	0.38%
	Index	1.0261	1.0419	1.0541	1.0643	1.0733	1.0813	1.0886	1.0953	1.1016	1.1075	1.1131	1.1184	1.1234	1.1282	1.1327	1.1370
5th	Percentile	2.10%	1.07%	0.72%	0.52%	0.39%	0.29%	0.21%	0.15%	0.10%	0.05%	0.01%	-0.03%	-0.06%	-0.09%	-0.12%	-0.15%
	Index	1.0210	1.0319	1.0393	1.0447	1.0487	1.0518	1.0540	1.0556	1.0567	1.0573	1.0574	1.0571	1.0565	1.0555	1.0542	1.0526

Projected Non-Nuclear Escalation Rates and Indexes at Kansas City National Security Campus (KCNSC)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	6.51%	5.01%	4.52%	4.30%	4.17%	4.09%	4.05%	4.01%	4.06%	4.11%	4.14%	4.18%	4.21%	4.24%	4.27%	4.30%
	Index	1.0651	1.1185	1.1691	1.2193	1.2702	1.3222	1.3756	1.4309	1.4890	1.5501	1.6144	1.6819	1.7527	1.8271	1.9051	1.9869
90th	Percentile	6.02%	4.57%	4.10%	3.87%	3.75%	3.67%	3.62%	3.59%	3.62%	3.66%	3.69%	3.72%	3.74%	3.76%	3.79%	3.81%
	Index	1.0602	1.1086	1.1541	1.1988	1.2437	1.2894	1.3360	1.3839	1.4341	1.4866	1.5414	1.5987	1.6585	1.7209	1.7861	1.8541
85th	Percentile	5.68%	4.27%	3.81%	3.59%	3.46%	3.39%	3.33%	3.30%	3.33%	3.36%	3.38%	3.40%	3.42%	3.44%	3.46%	3.48%
	Index	1.0568	1.1020	1.1440	1.1850	1.2261	1.2676	1.3099	1.3531	1.3981	1.4450	1.4939	1.5447	1.5976	1.6526	1.7097	1.7691
80th	Percentile	5.41%	4.04%	3.58%	3.36%	3.24%	3.16%	3.11%	3.07%	3.09%	3.12%	3.14%	3.15%	3.17%	3.19%	3.20%	3.21%
	Index	1.0541	1.0967	1.1360	1.1742	1.2122	1.2505	1.2894	1.3289	1.3701	1.4127	1.4570	1.5030	1.5506	1.6000	1.6512	1.7043
75th	Percentile	5.19%	3.83%	3.39%	3.17%	3.05%	2.97%	2.91%	2.87%	2.89%	2.91%	2.93%	2.94%	2.95%	2.97%	2.98%	2.99%
	Index	1.0519	1.0922	1.1292	1.1650	1.2005	1.2361	1.2720	1.3086	1.3464	1.3856	1.4261	1.4680	1.5114	1.5562	1.6025	1.6504
70th	Percentile	4.98%	3.65%	3.21%	3.00%	2.87%	2.79%	2.73%	2.69%	2.71%	2.72%	2.74%	2.75%	2.76%	2.77%	2.78%	2.79%
	Index	1.0498	1.0881	1.1231	1.1567	1.1900	1.2232	1.2566	1.2905	1.3255	1.3616	1.3988	1.4373	1.4769	1.5178	1.5600	1.6034
65th	Percentile	4.79%	3.48%	3.05%	2.84%	2.71%	2.63%	2.57%	2.53%	2.54%	2.55%	2.56%	2.57%	2.58%	2.58%	2.59%	2.60%
	Index	1.0479	1.0844	1.1175	1.1491	1.1803	1.2113	1.2425	1.2739	1.3063	1.3397	1.3740	1.4093	1.4456	1.4830	1.5214	1.5610
60th	Percentile	4.61%	3.32%	2.89%	2.68%	2.56%	2.48%	2.42%	2.38%	2.38%	2.39%	2.40%	2.40%	2.41%	2.41%	2.42%	2.42%
	Index	1.0461	1.0808	1.1121	1.1420	1.1712	1.2002	1.2292	1.2584	1.2884	1.3192	1.3508	1.3832	1.4165	1.4507	1.4857	1.5217
55th	Percentile	4.44%	3.17%	2.74%	2.53%	2.41%	2.33%	2.27%	2.23%	2.23%	2.23%	2.24%	2.24%	2.24%	2.24%	2.25%	2.25%
	Index	1.0444	1.0774	1.1070	1.1351	1.1624	1.1895	1.2165	1.2435	1.2712	1.2996	1.3287	1.3584	1.3889	1.4200	1.4519	1.4845
50th	Percentile	4.26%	3.01%	2.60%	2.39%	2.26%	2.18%	2.12%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%	2.08%
	Index	1.0426	1.0741	1.1020	1.1283	1.1538	1.1790	1.2040	1.2290	1.2546	1.2806	1.3072	1.3344	1.3621	1.3904	1.4193	1.4488
45th	Percentile	4.09%	2.86%	2.45%	2.24%	2.12%	2.04%	1.97%	1.93%	1.93%	1.92%	1.92%	1.91%	1.91%	1.91%	1.91%	1.91%
	Index	1.0409	1.0707	1.0969	1.1216	1.1453	1.1686	1.1917	1.2147	1.2381	1.2619	1.2861	1.3108	1.3359	1.3614	1.3874	1.4139
40th	Percentile	3.92%	2.71%	2.30%	2.10%	1.97%	1.89%	1.83%	1.78%	1.77%	1.77%	1.76%	1.75%	1.75%	1.74%	1.74%	1.74%
	Index	1.0392	1.0673	1.0919	1.1147	1.1367	1.1582	1.1793	1.2003	1.2215	1.2431	1.2650	1.2872	1.3097	1.3325	1.3557	1.3793
35th	Percentile	3.74%	2.55%	2.15%	1.94%	1.82%	1.73%	1.67%	1.62%	1.61%	1.60%	1.59%	1.59%	1.58%	1.57%	1.56%	1.56%
	Index	1.0374	1.0638	1.0866	1.1077	1.1279	1.1474	1.1666	1.1855	1.2046	1.2239	1.2435	1.2632	1.2831	1.3033	1.3236	1.3443
30th	Percentile	3.55%	2.38%	1.98%	1.78%	1.66%	1.57%	1.51%	1.46%	1.44%	1.43%	1.42%	1.41%	1.40%	1.39%	1.38%	1.37%
	Index	1.0355	1.0601	1.0811	1.1004	1.1186	1.1362	1.1533	1.1702	1.1871	1.2041	1.2211	1.2383	1.2556	1.2731	1.2906	1.3083
25th	Percentile	3.34%	2.20%	1.81%	1.61%	1.48%	1.40%	1.33%	1.28%	1.26%	1.25%	1.23%	1.22%	1.20%	1.19%	1.18%	1.17%
	Index	1.0334	1.0561	1.0752	1.0925	1.1087	1.1242	1.1392	1.1538	1.1683	1.1829	1.1975	1.2120	1.2266	1.2412	1.2558	1.2705
20th	Percentile	3.11%	1.99%	1.61%	1.41%	1.29%	1.20%	1.14%	1.09%	1.06%	1.04%	1.02%	1.00%	0.99%	0.97%	0.96%	0.94%
	Index	1.0311	1.0517	1.0686	1.0837	1.0977	1.1109	1.1235	1.1357	1.1478	1.1597	1.1716	1.1833	1.1950	1.2066	1.2181	1.2296
15th	Percentile	2.85%	1.76%	1.38%	1.19%	1.06%	0.98%	0.91%	0.86%	0.83%	0.80%	0.78%	0.75%	0.73%	0.71%	0.70%	0.68%
	Index	1.0285	1.0465	1.0610	1.0736	1.0850	1.0956	1.1056	1.1151	1.1243	1.1333	1.1421	1.1507	1.1591	1.1674	1.1755	1.1835
10th	Percentile	2.51%	1.46%	1.10%	0.90%	0.78%	0.69%	0.62%	0.57%	0.53%	0.50%	0.47%	0.44%	0.41%	0.39%	0.37%	0.35%
	Index	1.0251	1.0401	1.0515	1.0610	1.0692	1.0766	1.0833	1.0895	1.0953	1.1007	1.1059	1.1107	1.1154	1.1197	1.1239	1.1278
5th	Percentile	2.01%	1.02%	0.67%	0.48%	0.36%	0.27%	0.20%	0.14%	0.09%	0.05%	0.01%	-0.02%	-0.06%	-0.09%	-0.11%	-0.14%
	Index	1.0201	1.0305	1.0374	1.0424	1.0462	1.0490	1.0511	1.0526	1.0535	1.0541	1.0542	1.0539	1.0533	1.0524	1.0512	1.0497

Projected Life-Extension Programs Escalation Rates and Indexes at Kansas City National Security Campus (KCNSC)															as of 05/01/2023		
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	8.35%	7.01%	6.62%	6.46%	6.39%	6.35%	6.34%	6.34%	6.42%	6.48%	6.55%	6.60%	6.65%	6.70%	6.74%	6.78%
	Index	1.0835	1.1595	1.2363	1.3161	1.4001	1.4891	1.5835	1.6839	1.7919	1.9082	2.0330	2.1673	2.3114	2.4663	2.6326	2.8112
90th	Percentile	7.71%	6.40%	6.00%	5.83%	5.74%	5.70%	5.67%	5.66%	5.72%	5.78%	5.82%	5.87%	5.91%	5.94%	5.98%	6.01%
	Index	1.0771	1.1460	1.2148	1.2855	1.3593	1.4368	1.5183	1.6043	1.6961	1.7941	1.8986	2.0100	2.1288	2.2553	2.3902	2.5339
85th	Percentile	7.28%	5.98%	5.58%	5.40%	5.31%	5.25%	5.22%	5.21%	5.26%	5.30%	5.34%	5.37%	5.41%	5.44%	5.46%	5.49%
	Index	1.0728	1.1370	1.2004	1.2652	1.3323	1.4024	1.4756	1.5525	1.6341	1.7207	1.8126	1.9100	2.0132	2.1226	2.2386	2.3615
80th	Percentile	6.94%	5.65%	5.24%	5.06%	4.96%	4.90%	4.87%	4.85%	4.89%	4.92%	4.95%	4.98%	5.01%	5.03%	5.05%	5.07%
	Index	1.0694	1.1298	1.1891	1.2492	1.3112	1.3755	1.4424	1.5124	1.5862	1.6643	1.7467	1.8337	1.9255	2.0224	2.1245	2.2323
75th	Percentile	6.65%	5.36%	4.96%	4.77%	4.66%	4.60%	4.56%	4.54%	4.57%	4.59%	4.62%	4.64%	4.66%	4.68%	4.70%	4.72%
	Index	1.0665	1.1237	1.1794	1.2356	1.2933	1.3528	1.4145	1.4786	1.5462	1.6172	1.6919	1.7705	1.8531	1.9398	2.0310	2.1269
70th	Percentile	6.39%	5.11%	4.70%	4.51%	4.40%	4.33%	4.29%	4.26%	4.28%	4.30%	4.32%	4.34%	4.36%	4.37%	4.39%	4.40%
	Index	1.0639	1.1182	1.1708	1.2235	1.2773	1.3327	1.3898	1.4489	1.5110	1.5760	1.6441	1.7155	1.7902	1.8684	1.9504	2.0362
65th	Percentile	6.14%	4.87%	4.46%	4.26%	4.15%	4.08%	4.03%	4.00%	4.02%	4.03%	4.05%	4.06%	4.07%	4.08%	4.09%	4.10%
	Index	1.0614	1.1131	1.1628	1.2124	1.2627	1.3142	1.3672	1.4219	1.4790	1.5386	1.6009	1.6659	1.7337	1.8044	1.8783	1.9553
60th	Percentile	5.91%	4.65%	4.24%	4.03%	3.92%	3.84%	3.79%	3.75%	3.76%	3.77%	3.78%	3.79%	3.80%	3.81%	3.81%	3.82%
	Index	1.0591	1.1083	1.1553	1.2019	1.2490	1.2970	1.3461	1.3966	1.4492	1.5039	1.5608	1.6200	1.6816	1.7456	1.8122	1.8814
55th	Percentile	5.69%	4.43%	4.02%	3.81%	3.69%	3.61%	3.56%	3.51%	3.52%	3.53%	3.53%	3.54%	3.54%	3.54%	3.55%	3.55%
	Index	1.0569	1.1037	1.1480	1.1918	1.2358	1.2804	1.3259	1.3725	1.4209	1.4710	1.5229	1.5767	1.6326	1.6904	1.7503	1.8125
50th	Percentile	5.47%	4.22%	3.80%	3.59%	3.47%	3.38%	3.33%	3.28%	3.28%	3.28%	3.28%	3.28%	3.28%	3.28%	3.28%	3.28%
	Index	1.0547	1.0992	1.1409	1.1819	1.2229	1.2643	1.3064	1.3492	1.3935	1.4392	1.4864	1.5352	1.5856	1.6376	1.6914	1.7469
45th	Percentile	5.25%	4.00%	3.59%	3.37%	3.25%	3.16%	3.09%	3.05%	3.04%	3.04%	3.03%	3.03%	3.02%	3.02%	3.02%	3.01%
	Index	1.0525	1.0946	1.1339	1.1721	1.2102	1.2484	1.2870	1.3262	1.3666	1.4081	1.4508	1.4947	1.5399	1.5864	1.6343	1.6835
40th	Percentile	5.02%	3.79%	3.37%	3.15%	3.02%	2.93%	2.86%	2.81%	2.80%	2.79%	2.78%	2.77%	2.76%	2.76%	2.75%	2.74%
	Index	1.0502	1.0900	1.1267	1.1622	1.1973	1.2323	1.2676	1.3032	1.3397	1.3770	1.4153	1.4545	1.4947	1.5359	1.5781	1.6213
35th	Percentile	4.79%	3.56%	3.14%	2.92%	2.78%	2.69%	2.62%	2.56%	2.55%	2.53%	2.52%	2.50%	2.49%	2.48%	2.47%	2.46%
	Index	1.0479	1.0852	1.1193	1.1520	1.1841	1.2160	1.2478	1.2798	1.3124	1.3456	1.3795	1.4140	1.4493	1.4852	1.5219	1.5594
30th	Percentile	4.55%	3.33%	2.90%	2.68%	2.54%	2.44%	2.36%	2.31%	2.28%	2.26%	2.24%	2.22%	2.21%	2.19%	2.18%	2.16%
	Index	1.0455	1.0803	1.1116	1.1414	1.1704	1.1989	1.2272	1.2555	1.2842	1.3132	1.3426	1.3725	1.4028	1.4335	1.4647	1.4964
25th	Percentile	4.28%	3.07%	2.65%	2.42%	2.27%	2.17%	2.09%	2.03%	2.00%	1.97%	1.94%	1.92%	1.90%	1.88%	1.86%	1.84%
	Index	1.0428	1.0749	1.1033	1.1300	1.1557	1.1807	1.2054	1.2298	1.2543	1.2790	1.3039	1.3289	1.3542	1.3796	1.4053	1.4312
20th	Percentile	3.99%	2.79%	2.36%	2.13%	1.98%	1.87%	1.78%	1.72%	1.68%	1.64%	1.61%	1.58%	1.56%	1.53%	1.51%	1.49%
	Index	1.0399	1.0689	1.0941	1.1174	1.1395	1.1607	1.1814	1.2017	1.2218	1.2419	1.2619	1.2819	1.3018	1.3218	1.3418	1.3617
15th	Percentile	3.65%	2.46%	2.02%	1.79%	1.63%	1.52%	1.43%	1.35%	1.31%	1.26%	1.22%	1.19%	1.16%	1.13%	1.10%	1.07%
	Index	1.0365	1.0620	1.0835	1.1028	1.1208	1.1378	1.1540	1.1696	1.1849	1.1999	1.2145	1.2290	1.2432	1.2572	1.2711	1.2847
10th	Percentile	3.22%	2.04%	1.60%	1.36%	1.20%	1.07%	0.98%	0.90%	0.84%	0.79%	0.74%	0.70%	0.66%	0.62%	0.58%	0.55%
	Index	1.0322	1.0533	1.0702	1.0847	1.0977	1.1095	1.1203	1.1303	1.1398	1.1488	1.1572	1.1653	1.1729	1.1802	1.1871	1.1936
5th	Percentile	2.58%	1.42%	0.98%	0.73%	0.55%	0.42%	0.31%	0.22%	0.15%	0.08%	0.02%	-0.04%	-0.09%	-0.14%	-0.18%	-0.22%
	Index	1.0258	1.0404	1.0506	1.0583	1.0641	1.0686	1.0719	1.0742	1.0758	1.0766	1.0768	1.0764	1.0755	1.0740	1.0721	1.0697

Projected Nuclear Escalation Rates and Indexes at Lawrence Livermore National Lab (LLNL)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	9.14%	7.87%	7.52%	7.39%	7.33%	7.32%	7.32%	7.34%	7.43%	7.50%	7.57%	7.64%	7.70%	7.75%	7.80%	7.85%
	Index	1.0914	1.1773	1.2658	1.3593	1.4590	1.5658	1.6804	1.8037	1.9376	2.0830	2.2408	2.4120	2.5976	2.7990	3.0174	3.2543
90th	Percentile	8.44%	7.18%	6.81%	6.66%	6.59%	6.56%	6.55%	6.55%	6.62%	6.68%	6.74%	6.79%	6.84%	6.88%	6.92%	6.96%
	Index	1.0844	1.1623	1.2414	1.3241	1.4114	1.5041	1.6027	1.7077	1.8208	1.9425	2.0735	2.2142	2.3656	2.5283	2.7032	2.8913
85th	Percentile	7.97%	6.71%	6.33%	6.17%	6.09%	6.05%	6.03%	6.03%	6.08%	6.13%	6.18%	6.22%	6.25%	6.29%	6.32%	6.35%
	Index	1.0797	1.1522	1.2251	1.3008	1.3801	1.4636	1.5519	1.6455	1.7456	1.8526	1.9671	2.0894	2.2200	2.3597	2.5088	2.6682
80th	Percentile	7.60%	6.34%	5.95%	5.79%	5.70%	5.65%	5.62%	5.61%	5.65%	5.69%	5.73%	5.76%	5.79%	5.82%	5.85%	5.87%
	Index	1.0760	1.1442	1.2123	1.2824	1.3555	1.4321	1.5126	1.5974	1.6878	1.7839	1.8861	1.9947	2.1103	2.2331	2.3637	2.5025
75th	Percentile	7.28%	6.02%	5.63%	5.45%	5.36%	5.30%	5.27%	5.25%	5.28%	5.32%	5.35%	5.37%	5.40%	5.42%	5.44%	5.46%
	Index	1.0728	1.1373	1.2014	1.2669	1.3348	1.4055	1.4796	1.5572	1.6395	1.7267	1.8190	1.9167	2.0202	2.1296	2.2455	2.3681
70th	Percentile	6.99%	5.73%	5.34%	5.15%	5.05%	4.99%	4.95%	4.92%	4.95%	4.98%	5.00%	5.02%	5.04%	5.06%	5.07%	5.09%
	Index	1.0699	1.1312	1.1916	1.2530	1.3163	1.3820	1.4504	1.5219	1.5973	1.6768	1.7606	1.8490	1.9422	2.0405	2.1440	2.2531
65th	Percentile	6.72%	5.47%	5.07%	4.88%	4.77%	4.70%	4.66%	4.63%	4.65%	4.67%	4.68%	4.70%	4.71%	4.72%	4.74%	4.75%
	Index	1.0672	1.1256	1.1826	1.2403	1.2994	1.3605	1.4239	1.4897	1.5589	1.6317	1.7081	1.7883	1.8725	1.9610	2.0539	2.1513
60th	Percentile	6.47%	5.22%	4.81%	4.61%	4.50%	4.43%	4.38%	4.34%	4.36%	4.37%	4.38%	4.39%	4.40%	4.41%	4.41%	4.42%
	Index	1.0647	1.1202	1.1741	1.2283	1.2835	1.3404	1.3990	1.4598	1.5234	1.5899	1.6595	1.7323	1.8085	1.8882	1.9716	2.0587
55th	Percentile	6.22%	4.97%	4.56%	4.36%	4.24%	4.16%	4.11%	4.07%	4.07%	4.08%	4.09%	4.09%	4.10%	4.10%	4.10%	4.11%
	Index	1.0622	1.1151	1.1659	1.2167	1.2683	1.3211	1.3754	1.4313	1.4896	1.5504	1.6137	1.6797	1.7485	1.8202	1.8949	1.9727
50th	Percentile	5.98%	4.73%	4.32%	4.11%	3.98%	3.90%	3.84%	3.80%	3.80%	3.80%	3.80%	3.80%	3.80%	3.80%	3.80%	3.80%
	Index	1.0598	1.1100	1.1579	1.2055	1.2535	1.3024	1.3524	1.4038	1.4571	1.5124	1.5698	1.6294	1.6913	1.7555	1.8222	1.8913
45th	Percentile	5.74%	4.49%	4.07%	3.86%	3.73%	3.64%	3.57%	3.53%	3.52%	3.51%	3.51%	3.50%	3.50%	3.49%	3.49%	3.49%
	Index	1.0574	1.1049	1.1499	1.1943	1.2388	1.2839	1.3298	1.3767	1.4251	1.4752	1.5270	1.5805	1.6358	1.6929	1.7520	1.8131
40th	Percentile	5.50%	4.25%	3.82%	3.60%	3.47%	3.37%	3.30%	3.25%	3.24%	3.23%	3.22%	3.21%	3.20%	3.19%	3.18%	3.17%
	Index	1.0550	1.0998	1.1419	1.1830	1.2240	1.2653	1.3071	1.3496	1.3933	1.4383	1.4845	1.5321	1.5811	1.6315	1.6834	1.7368
35th	Percentile	5.24%	4.00%	3.57%	3.34%	3.20%	3.10%	3.03%	2.97%	2.95%	2.93%	2.91%	2.90%	2.88%	2.87%	2.86%	2.85%
	Index	1.0524	1.0945	1.1336	1.1714	1.2089	1.2464	1.2841	1.3222	1.3611	1.4010	1.4418	1.4836	1.5263	1.5702	1.6150	1.6610
30th	Percentile	4.98%	3.73%	3.30%	3.06%	2.92%	2.81%	2.73%	2.67%	2.64%	2.62%	2.59%	2.57%	2.55%	2.54%	2.52%	2.50%
	Index	1.0498	1.0890	1.1248	1.1593	1.1931	1.2266	1.2601	1.2937	1.3279	1.3626	1.3980	1.4339	1.4705	1.5078	1.5458	1.5846
25th	Percentile	4.69%	3.45%	3.00%	2.76%	2.61%	2.50%	2.41%	2.34%	2.31%	2.28%	2.25%	2.22%	2.20%	2.18%	2.15%	2.13%
	Index	1.0469	1.0830	1.1155	1.1463	1.1763	1.2056	1.2347	1.2637	1.2929	1.3223	1.3520	1.3821	1.4124	1.4432	1.4743	1.5057
20th	Percentile	4.37%	3.13%	2.68%	2.43%	2.27%	2.15%	2.06%	1.98%	1.94%	1.90%	1.86%	1.83%	1.80%	1.77%	1.75%	1.72%
	Index	1.0437	1.0763	1.1052	1.1320	1.1577	1.1826	1.2070	1.2309	1.2548	1.2787	1.3025	1.3264	1.3503	1.3742	1.3982	1.4223
15th	Percentile	3.99%	2.76%	2.30%	2.04%	1.87%	1.75%	1.65%	1.57%	1.51%	1.46%	1.42%	1.38%	1.34%	1.30%	1.27%	1.24%
	Index	1.0399	1.0686	1.0932	1.1155	1.1364	1.1562	1.1753	1.1937	1.2117	1.2294	1.2469	1.2640	1.2809	1.2977	1.3142	1.3305
10th	Percentile	3.52%	2.29%	1.82%	1.56%	1.37%	1.24%	1.13%	1.04%	0.97%	0.91%	0.85%	0.80%	0.76%	0.72%	0.68%	0.64%
	Index	1.0352	1.0589	1.0782	1.0950	1.1100	1.1238	1.1364	1.1482	1.1594	1.1699	1.1799	1.1894	1.1984	1.2070	1.2151	1.2229
5th	Percentile	2.83%	1.60%	1.12%	0.83%	0.63%	0.48%	0.36%	0.26%	0.17%	0.09%	0.02%	-0.04%	-0.10%	-0.16%	-0.21%	-0.26%
	Index	1.0283	1.0447	1.0563	1.0651	1.0719	1.0770	1.0809	1.0836	1.0855	1.0864	1.0867	1.0862	1.0851	1.0834	1.0811	1.0783

Projected Non-Nuclear Escalation Rates and Indexes at Lawrence Livermore National Lab (LLNL)															as of 05/01/2023		
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	8.40%	7.06%	6.67%	6.51%	6.44%	6.41%	6.40%	6.40%	6.48%	6.54%	6.61%	6.66%	6.71%	6.76%	6.81%	6.85%
	Index	1.0840	1.1605	1.2380	1.3186	1.4035	1.4935	1.5890	1.6907	1.8002	1.9180	2.0446	2.1809	2.3273	2.4846	2.6537	2.8354
90th	Percentile	7.76%	6.44%	6.05%	5.87%	5.79%	5.75%	5.73%	5.72%	5.78%	5.83%	5.88%	5.92%	5.96%	6.00%	6.03%	6.07%
	Index	1.0776	1.1470	1.2163	1.2878	1.3623	1.4406	1.5231	1.6102	1.7032	1.8025	1.9084	2.0214	2.1420	2.2705	2.4074	2.5535
85th	Percentile	7.32%	6.02%	5.62%	5.44%	5.35%	5.30%	5.27%	5.26%	5.31%	5.35%	5.39%	5.42%	5.45%	5.49%	5.51%	5.54%
	Index	1.0732	1.1379	1.2018	1.2673	1.3351	1.4059	1.4800	1.5578	1.6404	1.7282	1.8212	1.9200	2.0247	2.1358	2.2535	2.3784
80th	Percentile	6.98%	5.69%	5.29%	5.10%	5.00%	4.95%	4.91%	4.89%	4.93%	4.97%	5.00%	5.03%	5.05%	5.08%	5.10%	5.12%
	Index	1.0698	1.1307	1.1904	1.2512	1.3138	1.3787	1.4465	1.5172	1.5920	1.6711	1.7546	1.8427	1.9358	2.0341	2.1378	2.2473
75th	Percentile	6.69%	5.40%	5.00%	4.81%	4.70%	4.64%	4.60%	4.58%	4.61%	4.64%	4.66%	4.69%	4.71%	4.73%	4.74%	4.76%
	Index	1.0669	1.1245	1.1807	1.2374	1.2957	1.3558	1.4182	1.4831	1.5515	1.6234	1.6991	1.7787	1.8624	1.9505	2.0430	2.1403
70th	Percentile	6.42%	5.15%	4.74%	4.54%	4.44%	4.37%	4.33%	4.30%	4.32%	4.34%	4.36%	4.38%	4.40%	4.41%	4.43%	4.44%
	Index	1.0642	1.1190	1.1720	1.2252	1.2796	1.3355	1.3933	1.4531	1.5159	1.5817	1.6507	1.7230	1.7987	1.8781	1.9612	2.0482
65th	Percentile	6.18%	4.91%	4.50%	4.30%	4.19%	4.12%	4.07%	4.03%	4.05%	4.07%	4.08%	4.10%	4.11%	4.12%	4.13%	4.14%
	Index	1.0618	1.1139	1.1640	1.2140	1.2648	1.3169	1.3705	1.4258	1.4835	1.5439	1.6069	1.6728	1.7415	1.8132	1.8881	1.9663
60th	Percentile	5.94%	4.68%	4.27%	4.07%	3.95%	3.88%	3.82%	3.79%	3.80%	3.81%	3.82%	3.83%	3.84%	3.84%	3.85%	3.86%
	Index	1.0594	1.1090	1.1564	1.2034	1.2510	1.2995	1.3491	1.4002	1.4534	1.5088	1.5664	1.6264	1.6887	1.7536	1.8211	1.8914
55th	Percentile	5.72%	4.46%	4.05%	3.84%	3.72%	3.64%	3.59%	3.55%	3.55%	3.56%	3.56%	3.57%	3.57%	3.58%	3.58%	3.58%
	Index	1.0572	1.1044	1.1491	1.1932	1.2377	1.2828	1.3288	1.3759	1.4248	1.4755	1.5281	1.5826	1.6391	1.6977	1.7585	1.8214
50th	Percentile	5.50%	4.25%	3.83%	3.62%	3.50%	3.41%	3.36%	3.31%	3.31%	3.31%	3.31%	3.31%	3.31%	3.31%	3.31%	3.31%
	Index	1.0550	1.0998	1.1419	1.1833	1.2247	1.2665	1.3090	1.3523	1.3971	1.4434	1.4912	1.5406	1.5916	1.6443	1.6987	1.7550
45th	Percentile	5.28%	4.03%	3.61%	3.40%	3.27%	3.19%	3.12%	3.07%	3.07%	3.06%	3.06%	3.06%	3.05%	3.05%	3.04%	3.04%
	Index	1.0528	1.0952	1.1348	1.1734	1.2118	1.2504	1.2895	1.3291	1.3699	1.4119	1.4551	1.4996	1.5453	1.5924	1.6409	1.6908
40th	Percentile	5.05%	3.81%	3.39%	3.18%	3.04%	2.95%	2.89%	2.84%	2.82%	2.81%	2.80%	2.80%	2.79%	2.78%	2.77%	2.77%
	Index	1.0505	1.0906	1.1276	1.1634	1.1988	1.2342	1.2699	1.3059	1.3428	1.3805	1.4193	1.4589	1.4996	1.5413	1.5840	1.6279
35th	Percentile	4.82%	3.59%	3.17%	2.95%	2.81%	2.71%	2.64%	2.59%	2.57%	2.55%	2.54%	2.53%	2.51%	2.50%	2.49%	2.48%
	Index	1.0482	1.0858	1.1202	1.1532	1.1856	1.2177	1.2499	1.2822	1.3152	1.3488	1.3830	1.4180	1.4537	1.4900	1.5272	1.5651
30th	Percentile	4.57%	3.35%	2.93%	2.70%	2.56%	2.46%	2.39%	2.33%	2.30%	2.28%	2.26%	2.24%	2.23%	2.21%	2.20%	2.18%
	Index	1.0457	1.0808	1.1124	1.1424	1.1717	1.2005	1.2291	1.2577	1.2867	1.3160	1.3458	1.3760	1.4066	1.4378	1.4694	1.5014
25th	Percentile	4.31%	3.09%	2.67%	2.44%	2.29%	2.19%	2.11%	2.04%	2.01%	1.99%	1.96%	1.94%	1.92%	1.90%	1.88%	1.86%
	Index	1.0431	1.0753	1.1040	1.1309	1.1568	1.1821	1.2071	1.2317	1.2566	1.2815	1.3066	1.3320	1.3575	1.3832	1.4092	1.4355
20th	Percentile	4.01%	2.81%	2.38%	2.14%	1.99%	1.88%	1.80%	1.73%	1.69%	1.66%	1.63%	1.60%	1.57%	1.55%	1.52%	1.50%
	Index	1.0401	1.0693	1.0948	1.1182	1.1405	1.1620	1.1829	1.2034	1.2237	1.2440	1.2642	1.2844	1.3046	1.3248	1.3450	1.3652
15th	Percentile	3.67%	2.47%	2.04%	1.80%	1.64%	1.53%	1.44%	1.37%	1.32%	1.27%	1.24%	1.20%	1.17%	1.14%	1.11%	1.08%
	Index	1.0367	1.0623	1.0840	1.1036	1.1217	1.1388	1.1552	1.1710	1.1864	1.2016	1.2164	1.2310	1.2454	1.2596	1.2735	1.2873
10th	Percentile	3.24%	2.05%	1.62%	1.37%	1.21%	1.08%	0.99%	0.90%	0.85%	0.79%	0.75%	0.70%	0.66%	0.62%	0.59%	0.56%
	Index	1.0324	1.0536	1.0706	1.0853	1.0984	1.1103	1.1212	1.1314	1.1409	1.1500	1.1586	1.1667	1.1744	1.1817	1.1887	1.1953
5th	Percentile	2.60%	1.43%	0.99%	0.73%	0.56%	0.42%	0.31%	0.22%	0.15%	0.08%	0.02%	-0.04%	-0.09%	-0.14%	-0.18%	-0.22%
	Index	1.0260	1.0407	1.0510	1.0587	1.0646	1.0690	1.0724	1.0748	1.0764	1.0772	1.0774	1.0770	1.0760	1.0745	1.0726	1.0702

Projected Life-Extension Programs Escalation Rates and Indexes at Lawrence Livermore National Lab (LLNL)													as of 05/01/2023				
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	9.70%	8.48%	8.16%	8.05%	8.01%	8.01%	8.02%	8.05%	8.14%	8.23%	8.31%	8.38%	8.44%	8.50%	8.56%	8.61%
	Index	1.0970	1.1901	1.2871	1.3907	1.5021	1.6225	1.7526	1.8937	2.0479	2.2165	2.4006	2.6017	2.8214	3.0613	3.3233	3.6095
90th	Percentile	8.96%	7.73%	7.39%	7.26%	7.20%	7.18%	7.18%	7.19%	7.27%	7.33%	7.39%	7.45%	7.50%	7.54%	7.59%	7.63%
	Index	1.0896	1.1739	1.2607	1.3522	1.4496	1.5537	1.6653	1.7850	1.9147	2.0551	2.2070	2.3713	2.5491	2.7415	2.9495	3.1745
85th	Percentile	8.46%	7.23%	6.87%	6.73%	6.66%	6.63%	6.61%	6.61%	6.67%	6.73%	6.78%	6.82%	6.86%	6.90%	6.93%	6.97%
	Index	1.0846	1.1630	1.2430	1.3266	1.4149	1.5087	1.6084	1.7148	1.8292	1.9522	2.0845	2.2266	2.3794	2.5435	2.7199	2.9094
80th	Percentile	8.06%	6.83%	6.46%	6.30%	6.22%	6.18%	6.16%	6.15%	6.20%	6.24%	6.28%	6.32%	6.35%	6.38%	6.41%	6.44%
	Index	1.0806	1.1545	1.2291	1.3065	1.3879	1.4737	1.5645	1.6607	1.7637	1.8738	1.9916	2.1174	2.2520	2.3958	2.5494	2.7136
75th	Percentile	7.72%	6.49%	6.11%	5.94%	5.85%	5.80%	5.77%	5.76%	5.80%	5.83%	5.86%	5.89%	5.92%	5.94%	5.97%	5.99%
	Index	1.0772	1.1471	1.2172	1.2895	1.3650	1.4442	1.5276	1.6155	1.7091	1.8088	1.9149	2.0277	2.1477	2.2754	2.4111	2.5555
70th	Percentile	7.42%	6.18%	5.79%	5.61%	5.52%	5.46%	5.43%	5.40%	5.43%	5.46%	5.49%	5.51%	5.53%	5.55%	5.57%	5.58%
	Index	1.0742	1.1406	1.2066	1.2744	1.3447	1.4181	1.4951	1.5758	1.6614	1.7522	1.8483	1.9501	2.0579	2.1721	2.2930	2.4210
65th	Percentile	7.14%	5.89%	5.50%	5.31%	5.21%	5.14%	5.10%	5.07%	5.10%	5.12%	5.14%	5.15%	5.17%	5.18%	5.19%	5.21%
	Index	1.0714	1.1345	1.1969	1.2605	1.3261	1.3943	1.4655	1.5398	1.6183	1.7011	1.7885	1.8806	1.9778	2.0803	2.1883	2.3023
60th	Percentile	6.87%	5.62%	5.22%	5.03%	4.92%	4.84%	4.80%	4.76%	4.78%	4.79%	4.80%	4.81%	4.82%	4.83%	4.84%	4.85%
	Index	1.0687	1.1287	1.1877	1.2474	1.3087	1.3721	1.4379	1.5063	1.5783	1.6539	1.7334	1.8168	1.9044	1.9965	2.0931	2.1947
55th	Percentile	6.61%	5.36%	4.95%	4.75%	4.63%	4.55%	4.50%	4.46%	4.47%	4.48%	4.48%	4.49%	4.49%	4.50%	4.50%	4.50%
	Index	1.0661	1.1232	1.1788	1.2348	1.2920	1.3508	1.4116	1.4745	1.5404	1.6094	1.6815	1.7569	1.8359	1.9184	2.0048	2.0951
50th	Percentile	6.35%	5.10%	4.68%	4.48%	4.35%	4.27%	4.21%	4.16%	4.16%	4.16%	4.16%	4.16%	4.16%	4.16%	4.16%	4.16%
	Index	1.0635	1.1178	1.1701	1.2225	1.2757	1.3301	1.3861	1.4438	1.5040	1.5666	1.6319	1.6998	1.7706	1.8444	1.9212	2.0012
45th	Percentile	6.09%	4.84%	4.42%	4.20%	4.07%	3.98%	3.92%	3.87%	3.86%	3.85%	3.85%	3.84%	3.84%	3.83%	3.83%	3.83%
	Index	1.0609	1.1123	1.1615	1.2103	1.2596	1.3097	1.3610	1.4137	1.4683	1.5249	1.5835	1.6444	1.7075	1.7730	1.8408	1.9113
40th	Percentile	5.83%	4.58%	4.15%	3.93%	3.79%	3.69%	3.62%	3.57%	3.55%	3.54%	3.53%	3.52%	3.51%	3.50%	3.49%	3.48%
	Index	1.0583	1.1068	1.1527	1.1980	1.2434	1.2893	1.3360	1.3836	1.4328	1.4835	1.5358	1.5898	1.6455	1.7030	1.7624	1.8238
35th	Percentile	5.57%	4.31%	3.87%	3.64%	3.49%	3.39%	3.31%	3.25%	3.23%	3.21%	3.19%	3.18%	3.16%	3.15%	3.14%	3.12%
	Index	1.0557	1.1011	1.1438	1.1854	1.2268	1.2684	1.3105	1.3531	1.3969	1.4417	1.4878	1.5351	1.5836	1.6335	1.6847	1.7373
30th	Percentile	5.28%	4.02%	3.58%	3.34%	3.18%	3.08%	2.99%	2.93%	2.90%	2.87%	2.84%	2.82%	2.80%	2.78%	2.76%	2.75%
	Index	1.0528	1.0952	1.1344	1.1722	1.2095	1.2467	1.2840	1.3216	1.3599	1.3989	1.4387	1.4793	1.5207	1.5630	1.6062	1.6503
25th	Percentile	4.98%	3.71%	3.26%	3.01%	2.85%	2.73%	2.64%	2.57%	2.53%	2.50%	2.47%	2.44%	2.41%	2.39%	2.36%	2.34%
	Index	1.0498	1.0888	1.1243	1.1581	1.1911	1.2237	1.2560	1.2883	1.3210	1.3540	1.3874	1.4212	1.4554	1.4902	1.5254	1.5611
20th	Percentile	4.64%	3.37%	2.91%	2.65%	2.48%	2.35%	2.26%	2.18%	2.13%	2.08%	2.05%	2.01%	1.98%	1.95%	1.92%	1.89%
	Index	1.0464	1.0816	1.1131	1.1426	1.1709	1.1984	1.2255	1.2522	1.2788	1.3055	1.3322	1.3589	1.3858	1.4127	1.4398	1.4670
15th	Percentile	4.24%	2.97%	2.50%	2.23%	2.05%	1.91%	1.80%	1.72%	1.66%	1.60%	1.55%	1.51%	1.47%	1.43%	1.40%	1.36%
	Index	1.0424	1.0734	1.1001	1.1246	1.1476	1.1696	1.1907	1.2111	1.2312	1.2509	1.2704	1.2896	1.3085	1.3272	1.3458	1.3641
10th	Percentile	3.74%	2.47%	1.98%	1.69%	1.50%	1.35%	1.24%	1.14%	1.06%	1.00%	0.94%	0.88%	0.83%	0.78%	0.74%	0.70%
	Index	1.0374	1.0630	1.0840	1.1024	1.1189	1.1341	1.1481	1.1611	1.1735	1.1852	1.1963	1.2069	1.2169	1.2264	1.2355	1.2442
5th	Percentile	3.00%	1.72%	1.21%	0.91%	0.69%	0.53%	0.39%	0.28%	0.19%	0.10%	0.02%	-0.05%	-0.11%	-0.17%	-0.23%	-0.28%
	Index	1.0300	1.0477	1.0604	1.0700	1.0774	1.0831	1.0873	1.0904	1.0924	1.0935	1.0937	1.0932	1.0920	1.0901	1.0876	1.0845

Projected Nuclear Escalation Rates and Indexes at Nevada Nuclear Security Site (NNS)															as of 05/01/2023		
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.13%	5.68%	5.23%	5.02%	4.91%	4.85%	4.81%	4.79%	4.85%	4.90%	4.95%	4.99%	5.03%	5.07%	5.10%	5.13%
	Index	1.0713	1.1322	1.1913	1.2511	1.3126	1.3762	1.4425	1.5116	1.5850	1.6627	1.7450	1.8321	1.9242	2.0217	2.1248	2.2338
90th	Percentile	6.59%	5.18%	4.73%	4.53%	4.42%	4.35%	4.31%	4.28%	4.33%	4.37%	4.40%	4.44%	4.47%	4.49%	4.52%	4.54%
	Index	1.0659	1.1211	1.1742	1.2273	1.2815	1.3373	1.3949	1.4546	1.5176	1.5839	1.6536	1.7270	1.8041	1.8852	1.9704	2.0600
85th	Percentile	6.22%	4.84%	4.40%	4.20%	4.08%	4.01%	3.97%	3.94%	3.98%	4.01%	4.04%	4.06%	4.09%	4.11%	4.13%	4.15%
	Index	1.0622	1.1136	1.1627	1.2115	1.2609	1.3115	1.3635	1.4172	1.4735	1.5326	1.5945	1.6592	1.7270	1.7980	1.8723	1.9500
80th	Percentile	5.93%	4.58%	4.14%	3.93%	3.82%	3.74%	3.70%	3.66%	3.69%	3.72%	3.74%	3.77%	3.79%	3.80%	3.82%	3.84%
	Index	1.0593	1.1077	1.1536	1.1990	1.2447	1.2913	1.3390	1.3881	1.4394	1.4929	1.5488	1.6071	1.6680	1.7314	1.7976	1.8665
75th	Percentile	5.68%	4.35%	3.91%	3.71%	3.59%	3.51%	3.46%	3.43%	3.45%	3.47%	3.49%	3.51%	3.53%	3.54%	3.55%	3.57%
	Index	1.0568	1.1027	1.1458	1.1883	1.2309	1.2742	1.3183	1.3635	1.4106	1.4596	1.5106	1.5636	1.6188	1.6761	1.7357	1.7976
70th	Percentile	5.45%	4.14%	3.71%	3.50%	3.38%	3.31%	3.25%	3.22%	3.24%	3.25%	3.27%	3.28%	3.29%	3.31%	3.32%	3.33%
	Index	1.0545	1.0982	1.1389	1.1788	1.2187	1.2590	1.3000	1.3418	1.3852	1.4303	1.4770	1.5255	1.5757	1.6278	1.6818	1.7377
65th	Percentile	5.24%	3.95%	3.52%	3.31%	3.19%	3.12%	3.06%	3.02%	3.04%	3.05%	3.06%	3.07%	3.08%	3.09%	3.09%	3.10%
	Index	1.0524	1.0940	1.1325	1.1701	1.2074	1.2450	1.2831	1.3219	1.3621	1.4036	1.4465	1.4909	1.5368	1.5842	1.6333	1.6839
60th	Percentile	5.05%	3.77%	3.34%	3.14%	3.01%	2.93%	2.88%	2.84%	2.85%	2.85%	2.86%	2.87%	2.87%	2.88%	2.88%	2.89%
	Index	1.0505	1.0900	1.1265	1.1618	1.1968	1.2319	1.2674	1.3033	1.3404	1.3787	1.4181	1.4588	1.5007	1.5439	1.5884	1.6343
55th	Percentile	4.85%	3.59%	3.17%	2.96%	2.84%	2.76%	2.70%	2.66%	2.66%	2.67%	2.67%	2.67%	2.68%	2.68%	2.68%	2.68%
	Index	1.0485	1.0862	1.1206	1.1538	1.1866	1.2193	1.2522	1.2855	1.3197	1.3549	1.3911	1.4283	1.4665	1.5058	1.5461	1.5876
50th	Percentile	4.67%	3.42%	3.00%	2.79%	2.67%	2.58%	2.52%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%	2.48%
	Index	1.0467	1.0824	1.1149	1.1461	1.1766	1.2070	1.2375	1.2682	1.2997	1.3319	1.3650	1.3988	1.4335	1.4691	1.5056	1.5429
45th	Percentile	4.48%	3.24%	2.83%	2.62%	2.50%	2.41%	2.35%	2.30%	2.30%	2.30%	2.29%	2.29%	2.29%	2.28%	2.28%	2.28%
	Index	1.0448	1.0787	1.1092	1.1383	1.1667	1.1949	1.2229	1.2511	1.2799	1.3093	1.3393	1.3699	1.4013	1.4333	1.4660	1.4994
40th	Percentile	4.29%	3.07%	2.66%	2.45%	2.32%	2.24%	2.17%	2.12%	2.12%	2.11%	2.10%	2.09%	2.09%	2.08%	2.08%	2.07%
	Index	1.0429	1.0749	1.1034	1.1305	1.1567	1.1826	1.2083	1.2339	1.2600	1.2866	1.3136	1.3412	1.3692	1.3977	1.4267	1.4563
35th	Percentile	4.09%	2.89%	2.48%	2.27%	2.14%	2.05%	1.99%	1.94%	1.93%	1.91%	1.90%	1.89%	1.88%	1.88%	1.87%	1.86%
	Index	1.0409	1.0709	1.0975	1.1224	1.1465	1.1700	1.1933	1.2164	1.2398	1.2636	1.2876	1.3120	1.3367	1.3618	1.3872	1.4130
30th	Percentile	3.88%	2.70%	2.29%	2.08%	1.95%	1.86%	1.80%	1.74%	1.73%	1.71%	1.69%	1.68%	1.67%	1.66%	1.65%	1.64%
	Index	1.0388	1.0668	1.0913	1.1140	1.1357	1.1569	1.1776	1.1982	1.2188	1.2397	1.2607	1.2819	1.3033	1.3249	1.3467	1.3687
25th	Percentile	3.66%	2.49%	2.09%	1.88%	1.75%	1.66%	1.59%	1.53%	1.51%	1.49%	1.47%	1.45%	1.44%	1.42%	1.41%	1.39%
	Index	1.0366	1.0624	1.0846	1.1049	1.1242	1.1429	1.1610	1.1788	1.1965	1.2144	1.2322	1.2501	1.2680	1.2861	1.3042	1.3224
20th	Percentile	3.41%	2.26%	1.86%	1.65%	1.52%	1.43%	1.35%	1.30%	1.27%	1.24%	1.22%	1.20%	1.18%	1.16%	1.14%	1.13%
	Index	1.0341	1.0574	1.0771	1.0949	1.1116	1.1274	1.1427	1.1575	1.1721	1.1867	1.2012	1.2155	1.2298	1.2441	1.2583	1.2725
15th	Percentile	3.12%	1.99%	1.60%	1.39%	1.25%	1.16%	1.08%	1.02%	0.99%	0.96%	0.93%	0.90%	0.88%	0.85%	0.83%	0.81%
	Index	1.0312	1.0517	1.0685	1.0833	1.0969	1.1096	1.1216	1.1331	1.1443	1.1552	1.1659	1.1764	1.1867	1.1968	1.2068	1.2166
10th	Percentile	2.75%	1.65%	1.27%	1.06%	0.92%	0.82%	0.74%	0.68%	0.63%	0.59%	0.56%	0.53%	0.50%	0.47%	0.44%	0.42%
	Index	1.0275	1.0445	1.0577	1.0689	1.0787	1.0875	1.0956	1.1030	1.1100	1.1166	1.1229	1.1288	1.1343	1.1397	1.1447	1.1495
5th	Percentile	2.20%	1.15%	0.78%	0.57%	0.42%	0.32%	0.24%	0.17%	0.11%	0.06%	0.01%	-0.03%	-0.07%	-0.10%	-0.14%	-0.17%
	Index	1.0220	1.0338	1.0418	1.0477	1.0522	1.0555	1.0580	1.0598	1.0609	1.0616	1.0617	1.0614	1.0607	1.0596	1.0582	1.0564

Projected Non-Nuclear Escalation Rates and Indexes at Nevada Nuclear Security Site (NNSS)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	6.95%	5.49%	5.02%	4.81%	4.69%	4.63%	4.59%	4.57%	4.62%	4.67%	4.71%	4.75%	4.79%	4.82%	4.86%	4.89%
	Index	1.0695	1.1282	1.1848	1.2418	1.3001	1.3602	1.4227	1.4876	1.5564	1.6290	1.7058	1.7869	1.8725	1.9629	2.0582	2.1587
90th	Percentile	6.42%	5.00%	4.55%	4.34%	4.22%	4.15%	4.11%	4.08%	4.12%	4.16%	4.19%	4.23%	4.25%	4.28%	4.31%	4.33%
	Index	1.0642	1.1174	1.1683	1.2189	1.2704	1.3231	1.3774	1.4336	1.4927	1.5548	1.6200	1.6885	1.7603	1.8357	1.9147	1.9976
85th	Percentile	6.06%	4.68%	4.23%	4.02%	3.90%	3.83%	3.78%	3.75%	3.79%	3.82%	3.84%	3.87%	3.89%	3.91%	3.93%	3.95%
	Index	1.0606	1.1102	1.1572	1.2037	1.2506	1.2985	1.3476	1.3982	1.4511	1.5065	1.5644	1.6249	1.6882	1.7543	1.8233	1.8954
80th	Percentile	5.78%	4.42%	3.98%	3.77%	3.65%	3.57%	3.52%	3.49%	3.52%	3.54%	3.57%	3.59%	3.61%	3.62%	3.64%	3.65%
	Index	1.0578	1.1045	1.1484	1.1917	1.2351	1.2793	1.3243	1.3706	1.4188	1.4690	1.5214	1.5760	1.6328	1.6920	1.7535	1.8176
75th	Percentile	5.53%	4.20%	3.76%	3.55%	3.43%	3.35%	3.30%	3.27%	3.29%	3.31%	3.33%	3.34%	3.36%	3.37%	3.39%	3.40%
	Index	1.0553	1.0996	1.1410	1.1814	1.2220	1.2629	1.3046	1.3472	1.3915	1.4376	1.4854	1.5351	1.5866	1.6402	1.6957	1.7533
70th	Percentile	5.31%	4.00%	3.56%	3.35%	3.23%	3.16%	3.10%	3.06%	3.08%	3.10%	3.11%	3.13%	3.14%	3.15%	3.16%	3.17%
	Index	1.0531	1.0952	1.1343	1.1723	1.2102	1.2484	1.2871	1.3266	1.3675	1.4099	1.4538	1.4992	1.5462	1.5949	1.6453	1.6974
65th	Percentile	5.11%	3.81%	3.38%	3.17%	3.05%	2.97%	2.92%	2.88%	2.89%	2.90%	2.91%	2.92%	2.93%	2.94%	2.95%	2.95%
	Index	1.0511	1.0912	1.1281	1.1639	1.1994	1.2351	1.2711	1.3077	1.3455	1.3846	1.4249	1.4666	1.5096	1.5540	1.5998	1.6470
60th	Percentile	4.92%	3.64%	3.21%	3.00%	2.88%	2.80%	2.74%	2.70%	2.71%	2.72%	2.73%	2.73%	2.74%	2.74%	2.75%	2.75%
	Index	1.0492	1.0873	1.1223	1.1560	1.1893	1.2225	1.2561	1.2900	1.3250	1.3610	1.3981	1.4363	1.4756	1.5161	1.5577	1.6006
55th	Percentile	4.73%	3.47%	3.05%	2.84%	2.71%	2.63%	2.57%	2.53%	2.54%	2.54%	2.54%	2.55%	2.55%	2.55%	2.55%	2.56%
	Index	1.0473	1.0836	1.1166	1.1483	1.1795	1.2105	1.2417	1.2731	1.3054	1.3385	1.3726	1.4075	1.4434	1.4802	1.5180	1.5568
50th	Percentile	4.55%	3.30%	2.88%	2.67%	2.55%	2.47%	2.41%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%	2.36%
	Index	1.0455	1.0800	1.1111	1.1408	1.1699	1.1988	1.2276	1.2566	1.2863	1.3167	1.3478	1.3797	1.4123	1.4457	1.4798	1.5148
45th	Percentile	4.37%	3.13%	2.72%	2.51%	2.39%	2.30%	2.24%	2.19%	2.19%	2.19%	2.18%	2.18%	2.18%	2.18%	2.17%	2.17%
	Index	1.0437	1.0763	1.1056	1.1334	1.1604	1.1871	1.2137	1.2404	1.2675	1.2952	1.3235	1.3524	1.3818	1.4119	1.4426	1.4739
40th	Percentile	4.18%	2.96%	2.55%	2.35%	2.22%	2.13%	2.07%	2.02%	2.02%	2.01%	2.00%	1.99%	1.99%	1.98%	1.98%	1.97%
	Index	1.0418	1.0727	1.1000	1.1259	1.1508	1.1754	1.1997	1.2240	1.2487	1.2737	1.2992	1.3251	1.3515	1.3783	1.4056	1.4334
35th	Percentile	3.99%	2.79%	2.38%	2.17%	2.05%	1.96%	1.90%	1.85%	1.83%	1.82%	1.81%	1.80%	1.79%	1.79%	1.78%	1.77%
	Index	1.0399	1.0688	1.0943	1.1181	1.1410	1.1634	1.1854	1.2073	1.2294	1.2519	1.2745	1.2975	1.3208	1.3444	1.3683	1.3926
30th	Percentile	3.78%	2.60%	2.20%	1.99%	1.87%	1.78%	1.71%	1.66%	1.64%	1.63%	1.61%	1.60%	1.59%	1.58%	1.57%	1.56%
	Index	1.0378	1.0648	1.0883	1.1100	1.1307	1.1508	1.1705	1.1899	1.2095	1.2292	1.2490	1.2690	1.2892	1.3095	1.3300	1.3508
25th	Percentile	3.56%	2.40%	2.01%	1.80%	1.67%	1.58%	1.51%	1.46%	1.44%	1.42%	1.40%	1.38%	1.37%	1.35%	1.34%	1.33%
	Index	1.0356	1.0605	1.0818	1.1013	1.1197	1.1374	1.1546	1.1714	1.1882	1.2051	1.2219	1.2388	1.2558	1.2728	1.2898	1.3070
20th	Percentile	3.32%	2.18%	1.79%	1.58%	1.45%	1.36%	1.29%	1.23%	1.21%	1.18%	1.16%	1.14%	1.12%	1.10%	1.09%	1.07%
	Index	1.0332	1.0557	1.0746	1.0916	1.1075	1.1226	1.1370	1.1511	1.1650	1.1788	1.1924	1.2060	1.2196	1.2330	1.2464	1.2598
15th	Percentile	3.04%	1.92%	1.54%	1.33%	1.20%	1.10%	1.03%	0.97%	0.94%	0.91%	0.88%	0.86%	0.83%	0.81%	0.79%	0.77%
	Index	1.0304	1.0502	1.0663	1.0805	1.0934	1.1055	1.1169	1.1278	1.1384	1.1487	1.1589	1.1688	1.1785	1.1881	1.1975	1.2068
10th	Percentile	2.68%	1.60%	1.22%	1.01%	0.88%	0.78%	0.71%	0.65%	0.60%	0.57%	0.53%	0.50%	0.47%	0.45%	0.42%	0.40%
	Index	1.0268	1.0432	1.0559	1.0666	1.0759	1.0843	1.0920	1.0991	1.1057	1.1120	1.1179	1.1235	1.1288	1.1338	1.1386	1.1431
5th	Percentile	2.15%	1.11%	0.74%	0.54%	0.41%	0.30%	0.22%	0.16%	0.10%	0.06%	0.01%	-0.03%	-0.06%	-0.10%	-0.13%	-0.16%
	Index	1.0215	1.0329	1.0405	1.0462	1.0504	1.0536	1.0560	1.0577	1.0588	1.0594	1.0595	1.0592	1.0585	1.0575	1.0561	1.0544

Projected Life-Extension Programs Escalation Rates and Indexes at Nevada Nuclear Security Site (NNSS)														as of 05/01/2023			
		2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
95th	Percentile	7.33%	5.90%	5.45%	5.26%	5.15%	5.10%	5.06%	5.05%	5.11%	5.16%	5.21%	5.25%	5.30%	5.33%	5.37%	5.40%
	Index	1.0733	1.1366	1.1986	1.2616	1.3266	1.3942	1.4648	1.5387	1.6173	1.7008	1.7894	1.8835	1.9832	2.0890	2.2011	2.3200
90th	Percentile	6.77%	5.38%	4.94%	4.74%	4.63%	4.57%	4.53%	4.51%	4.56%	4.60%	4.64%	4.67%	4.70%	4.73%	4.76%	4.79%
	Index	1.0677	1.1251	1.1807	1.2367	1.2940	1.3532	1.4145	1.4783	1.5456	1.6167	1.6917	1.7707	1.8539	1.9417	2.0341	2.1314
85th	Percentile	6.39%	5.03%	4.60%	4.39%	4.28%	4.22%	4.17%	4.15%	4.18%	4.22%	4.25%	4.28%	4.30%	4.33%	4.35%	4.37%
	Index	1.0639	1.1174	1.1688	1.2201	1.2724	1.3260	1.3814	1.4386	1.4988	1.5621	1.6284	1.6981	1.7712	1.8478	1.9281	2.0124
80th	Percentile	6.09%	4.75%	4.32%	4.12%	4.00%	3.93%	3.89%	3.86%	3.89%	3.92%	3.94%	3.96%	3.99%	4.00%	4.02%	4.04%
	Index	1.0609	1.1113	1.1594	1.2071	1.2554	1.3048	1.3555	1.4078	1.4626	1.5198	1.5797	1.6424	1.7078	1.7762	1.8477	1.9223
75th	Percentile	5.84%	4.51%	4.08%	3.88%	3.76%	3.69%	3.64%	3.61%	3.64%	3.66%	3.68%	3.70%	3.71%	3.73%	3.74%	3.76%
	Index	1.0584	1.1061	1.1513	1.1960	1.2410	1.2868	1.3337	1.3818	1.4321	1.4844	1.5390	1.5959	1.6552	1.7169	1.7811	1.8480
70th	Percentile	5.60%	4.30%	3.87%	3.67%	3.55%	3.47%	3.42%	3.39%	3.41%	3.43%	3.44%	3.45%	3.47%	3.48%	3.49%	3.50%
	Index	1.0560	1.1014	1.1441	1.1860	1.2281	1.2708	1.3143	1.3588	1.4051	1.4533	1.5033	1.5552	1.6091	1.6651	1.7233	1.7836
65th	Percentile	5.39%	4.10%	3.68%	3.47%	3.35%	3.27%	3.22%	3.18%	3.20%	3.21%	3.22%	3.23%	3.24%	3.25%	3.26%	3.27%
	Index	1.0539	1.0971	1.1374	1.1769	1.2163	1.2561	1.2966	1.3378	1.3806	1.4249	1.4708	1.5183	1.5676	1.6185	1.6712	1.7258
60th	Percentile	5.19%	3.91%	3.49%	3.28%	3.16%	3.08%	3.03%	2.99%	3.00%	3.00%	3.01%	3.02%	3.03%	3.03%	3.04%	3.04%
	Index	1.0519	1.0930	1.1312	1.1683	1.2052	1.2424	1.2800	1.3182	1.3577	1.3985	1.4406	1.4841	1.5290	1.5754	1.6232	1.6726
55th	Percentile	4.99%	3.73%	3.31%	3.10%	2.98%	2.90%	2.84%	2.80%	2.80%	2.81%	2.81%	2.81%	2.82%	2.82%	2.82%	2.83%
	Index	1.0499	1.0891	1.1251	1.1600	1.1945	1.2291	1.2641	1.2994	1.3358	1.3733	1.4119	1.4517	1.4926	1.5347	1.5780	1.6226
50th	Percentile	4.80%	3.55%	3.13%	2.92%	2.80%	2.72%	2.66%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%	2.61%
	Index	1.0480	1.0852	1.1191	1.1519	1.1841	1.2163	1.2486	1.2812	1.3146	1.3490	1.3842	1.4204	1.4575	1.4955	1.5346	1.5747
45th	Percentile	4.60%	3.37%	2.95%	2.75%	2.62%	2.53%	2.47%	2.43%	2.42%	2.42%	2.41%	2.41%	2.41%	2.40%	2.40%	2.40%
	Index	1.0460	1.0813	1.1132	1.1438	1.1737	1.2035	1.2332	1.2631	1.2937	1.3250	1.3570	1.3897	1.4231	1.4574	1.4924	1.5282
40th	Percentile	4.41%	3.19%	2.77%	2.56%	2.44%	2.35%	2.29%	2.24%	2.23%	2.22%	2.21%	2.21%	2.20%	2.19%	2.19%	2.18%
	Index	1.0441	1.0773	1.1072	1.1356	1.1633	1.1906	1.2178	1.2451	1.2728	1.3010	1.3298	1.3591	1.3890	1.4195	1.4505	1.4822
35th	Percentile	4.20%	3.00%	2.59%	2.38%	2.25%	2.16%	2.09%	2.04%	2.03%	2.01%	2.00%	1.99%	1.98%	1.97%	1.97%	1.96%
	Index	1.0420	1.0733	1.1011	1.1272	1.1526	1.1774	1.2021	1.2266	1.2515	1.2767	1.3023	1.3282	1.3546	1.3813	1.4085	1.4361
30th	Percentile	3.99%	2.80%	2.39%	2.18%	2.05%	1.96%	1.89%	1.83%	1.82%	1.80%	1.78%	1.77%	1.76%	1.74%	1.73%	1.72%
	Index	1.0399	1.0690	1.0946	1.1184	1.1413	1.1637	1.1856	1.2074	1.2293	1.2515	1.2738	1.2963	1.3191	1.3421	1.3654	1.3889
25th	Percentile	3.76%	2.58%	2.18%	1.97%	1.83%	1.74%	1.67%	1.61%	1.59%	1.57%	1.55%	1.53%	1.51%	1.50%	1.48%	1.47%
	Index	1.0376	1.0644	1.0876	1.1090	1.1293	1.1490	1.1682	1.1870	1.2058	1.2247	1.2437	1.2627	1.2818	1.3010	1.3202	1.3396
20th	Percentile	3.50%	2.35%	1.94%	1.73%	1.59%	1.50%	1.42%	1.37%	1.33%	1.31%	1.28%	1.26%	1.24%	1.22%	1.20%	1.19%
	Index	1.0350	1.0593	1.0799	1.0986	1.1161	1.1328	1.1489	1.1646	1.1802	1.1956	1.2109	1.2262	1.2414	1.2565	1.2716	1.2867
15th	Percentile	3.20%	2.07%	1.67%	1.45%	1.32%	1.22%	1.14%	1.08%	1.04%	1.01%	0.98%	0.95%	0.92%	0.90%	0.88%	0.85%
	Index	1.0320	1.0534	1.0709	1.0865	1.1008	1.1142	1.1269	1.1390	1.1508	1.1624	1.1737	1.1849	1.1958	1.2065	1.2171	1.2275
10th	Percentile	2.83%	1.72%	1.32%	1.11%	0.96%	0.86%	0.78%	0.71%	0.67%	0.63%	0.59%	0.55%	0.52%	0.49%	0.46%	0.44%
	Index	1.0283	1.0459	1.0597	1.0715	1.0818	1.0911	1.0996	1.1075	1.1149	1.1218	1.1284	1.1347	1.1406	1.1462	1.1515	1.1566
5th	Percentile	2.27%	1.20%	0.81%	0.59%	0.44%	0.34%	0.25%	0.18%	0.12%	0.06%	0.01%	-0.03%	-0.07%	-0.11%	-0.14%	-0.18%
	Index	1.0227	1.0349	1.0433	1.0494	1.0541	1.0576	1.0603	1.0621	1.0634	1.0640	1.0642	1.0639	1.0631	1.0619	1.0604	1.0585

APPENDIX C: USE OF CONFIDENCE LEVELS

1. **INTRODUCTION.** Confidence levels are a statistical concept and can be difficult to understand if one is unfamiliar with the underlying mathematics. This appendix provides a brief introduction and overview of these concepts for a general audience.
2. **REQUIREMENTS.** This appendix applies to cost estimates for capital asset acquisition projects and programs within the National Nuclear Security Administration (NNSA). The Office of Cost Estimating and Program Evaluation (CEPE) must review this appendix annually and update as appropriate.
3. **BACKGROUND.** Prior to completion, all projects and programs carry some amount of risk and uncertainty. This risk and uncertainty are even greater early in project or program development when conceptual design and planning decisions have not been finalized. While expected value, or point, estimates are frequently calculated using standard cost estimating methodologies, the point estimates themselves do not give an indication of the underlying risk and uncertainty in a project or program.

Risk and uncertainty are treated as statistical concepts in cost estimating. Risk tells us there is some probability an event will occur that will either increase or decrease the cost and schedule of an undertaking, and uncertainty tells us that there are fundamental inaccuracies and imprecisions in the information available about cost and schedule that can only be fully resolved at the time of completion.

All risks and uncertainties are assumed to have an underlying probability distribution function (PDF), which provides information on the likelihood of a specific cost and schedule outcome that affects the overall cost and schedule for the project or program. PDFs can have different shapes when plotted. The shape of a PDF is developed by the plotting of data collected on actual outcomes of events and activities that have characteristics of the risk or uncertainty an estimator is interested in. Ideally, the shape of the PDF is identifiable with known mathematical functions, such as the Normal distribution (a.k.a., Gaussian distribution), and the Weibull distribution (Figure). In cases where there is limited data, the triangular distribution is frequently used unless there are qualitative reasons to use a different distribution.

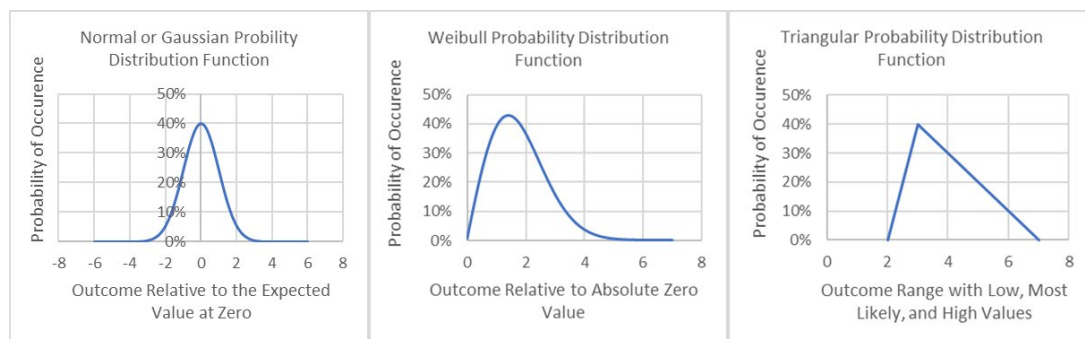


Figure 1. Probability Distribution Function (PDF) Examples

An S-curve is the cumulative distribution function (CDF) for the risk or uncertainty being considered. Typically, to develop an S-curve, the respective PDF probabilities for a risk or uncertainty is summed from left to right of the PDF plot. The resulting S-curve increases from left to right from an initial value of 0% to final value of 100%. The underlying PDF shape can significantly affect the shape of the CDF (Figure).

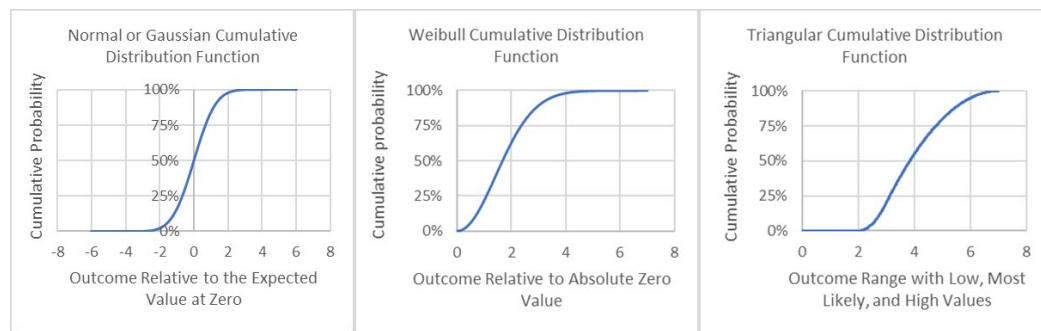


Figure 2. Cumulative Distribution Function (CDF) Examples

The confidence level associated with an outcome (x-axis value) is the cumulative probability value (y-axis value). Since the CDF increases from left to right, and the values of the outcomes also increase from left to right, a lower confidence level will correspond to a lower valued outcome, and a higher confidence level will correspond to a higher value outcome. This means that the specification of low and high confidence levels provides a low to high range of expected outcomes.

The PDFs associated with risk and uncertainties can be combined to form new PDFs. The mathematics for this operation can become cumbersome, so numerical methods using Monte Carlo simulation are generally used to combine PDFs associated with specific risk and uncertainties (Figure 3). Most professional estimating software can perform Monte Carlo simulation to combine PDFs.

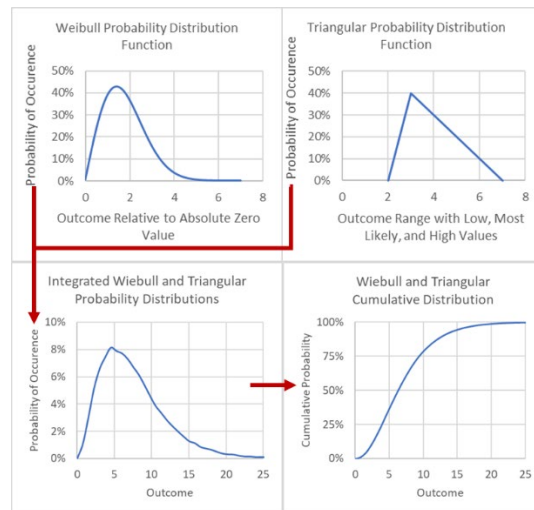


Figure 3. Combining Distributions Example

Most cost estimates consist of calculable elements broken down into some cost structure or work break down structure where each element can be assigned a PDF. These individual PDFs can then be combined using Monte Carlo simulation techniques into a single PDF for the entire estimate. This PDF can then be converted into a CDF, which is the S-curve for the estimate.

Figure shows the CDF probabilities are equivalent to the confidence levels associated with the estimate. The confidence levels are associated with specific outcomes.

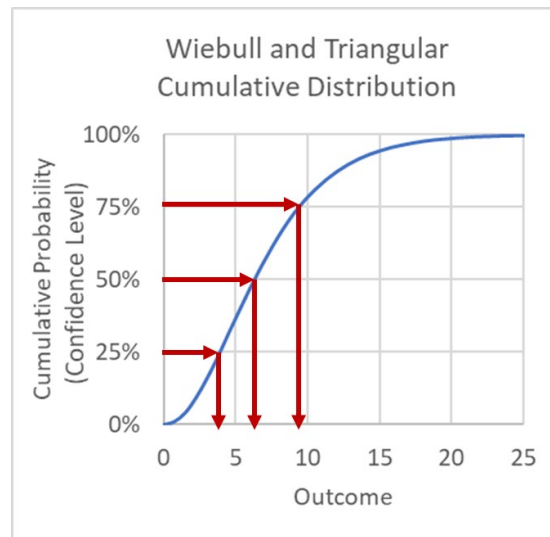


Figure 4. Relationship of Confidence Levels to Expected Outcomes

The S-curve of the outcomes as well as the value of the outcomes are usually unique to the underlying estimate. A project or program can have many different estimates developed by separate organizations reflecting different interpretations of scope, different

available data, and different assumptions and considerations. Reconciliation is the process by which these estimates are compared. Comparison of estimates at commonly used levels of confidence provides a basis for understanding fundamental differences between estimates.

4. APPLICATION. For NNSA cost estimates, the use of confidence levels as a basis of comparison to develop ranges and budget estimates is required with specific ranges for projects and weapons programs given in Appendix A.

While specific cost estimating techniques frequently vary, the expectation is for the calculations and expected values for point estimates to be determinable and identifiable, the estimate follows some structure that can be understood in terms of the scope of work to be performed along with the resources required, and for probability distributions to be used to develop an overall estimate of risk and uncertainty. The estimate with risk and uncertainty included should be representable with an S-curve, and actual cost and schedule data from past performance be incorporated into the estimate.

Generally, the elements of the estimate should convert into a representation of expected cost for work scope (with program management, program support, design, engineering, craft labor, construction, procurement, and material costs identifiable), sunk costs, escalation, other project costs for the contractor, other direct costs for the government, manage reserve based on known and unknown risks, and federal contingency.

Federal contingency, in principle, is determinable by comparison of the project cost estimate and the federal independent cost estimate at the high end of the confidence range; but this is not universally true and may not be immediately determinable prior to reconciliation.

Further information on different techniques and can be found in the GAO *Cost Estimating and Assessment Guide* (GAO-20-195G).