Data Report: PG&E 10-Year Electrical Undergrounding Plan

Sacramento – The Office of Energy Infrastructure Safety (Energy Safety) received the Pacific Gas and Electric (PG&E) 10-Year Electrical Undergrounding Plan (EUP) on September 30, 2026. Energy Safety has developed the attached Data Report summarizing the data provided in PG&E's EUP.

This report is provided for informational purposes only. The information presented in this data report is based solely on the data provided by PG&E in its EUP and has not been independently verified or checked for accuracy by Energy Safety. The data used in this report may be found on e-Filing at: https://efiling.energysafety.ca.gov/Lists/DocketLog.aspx?docketnumber=EUP-PGE Ref # 18697 (original submission) and 18757 (revised tables 8, 12, 14 and 15).

Stakeholders may direct any questions pertaining to the underlying data to PG&E by submitting a data request to EUPinfo@PGE.com.

For more information about the **Office of Energy Infrastructure Safety**:
www.energysafety.ca.gov



OFFICE OF ENERGY INFRASTRUCTURE SAFETY

PG&E EUP DATA REPORT

October 2026

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Chapter 1. Plan Statistics

1.1 Plan Information

Figure 1.1: Plan Information Table

Plan ID	Utility Name	Name	Start Date	End Date	Plan Submission Date	High-Risk Threshold (Overall Utility Risk per Overhead Mile)	Ignition Tail Risk Threshold (Million per Ignition)	High Frequency Outage Program Threshold (Outage Minutes per Year)
EUP-01	PG&E	PG&E EUP-01	1/1/2028	12/31/2037	9/30/2026	$29,879	$52.437	5,559

This information is taken directly from Table 1 in PG&E's data submission.

1.2 Summary of Size & Risk Metrics

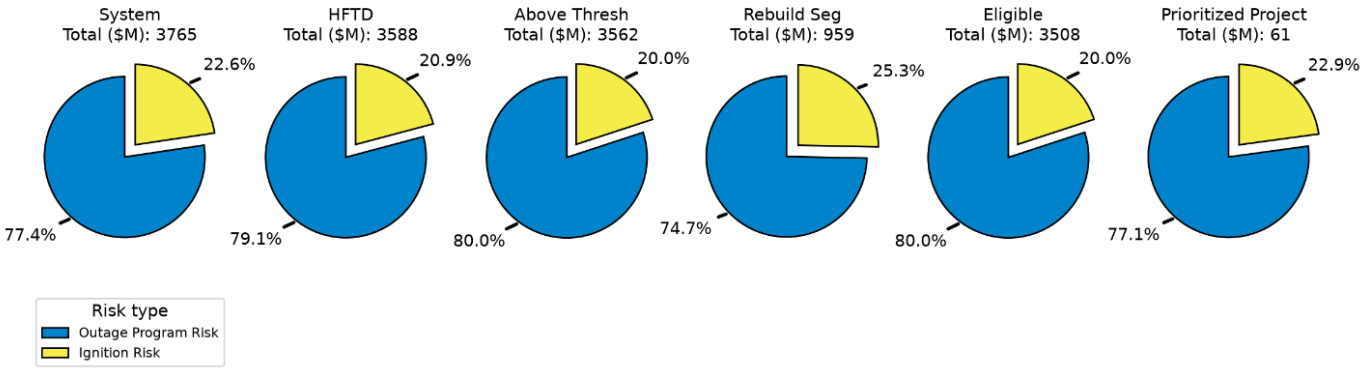
Figure 1.2: Summary of Size and Risk Metrics Table

Level	Number of Circuit Segments	Number of Miles	Number of Risk Miles	Existing Overall Risk ($M per year)	Wildfire Risk ($M per year)	Outage Program Risk ($M per year)
In System	11,482	80,632	27,658	3,765.61	852.85	2,912.76
HFTD Intersecting	3,650	33,130	25,381	3,588.52	748.67	2,839.85
Above Thresholds	2,975	28,751	21,120	3,562.18	711.28	2,850.91
WF Rebuild Designated (T6)	844	9,384	8,107	959.41	242.93	716.48
Eligible	2,917	28,089	20,883	3,508.40	700.16	2,808.23
Eligible (HFTD only)	2,913	28,023	20,816	3,502.73	698.87	2,803.86
Projects	28	253	223	621.98	14.16	47.82

Provides size and risk metrics for circuit segments that fall into the following categories: PG&E's electric distribution system, HFTD regions that exceed the risk thresholds, wildfire rebuild areas, eligible projects, and prioritized projects. Note: The Above Thresholds row only checks risk threshold eligibility, not HFTD status eligibility. Risk Miles means HFTD + HFRA length.

1.3 Breakdown of Risk Factors

Figure 1.3: Breakdown of Risk Factors (Annual totals)



This information shows outage program risks and ignition risks for circuit segments that fall into the following categories: PG&E's electric distribution system, HFTD regions that exceed the risk thresholds, wildfire rebuild areas, eligible projects, and prioritized projects.

1.4 Risk Breakdown

Figure 1.4: Risk Breakdown

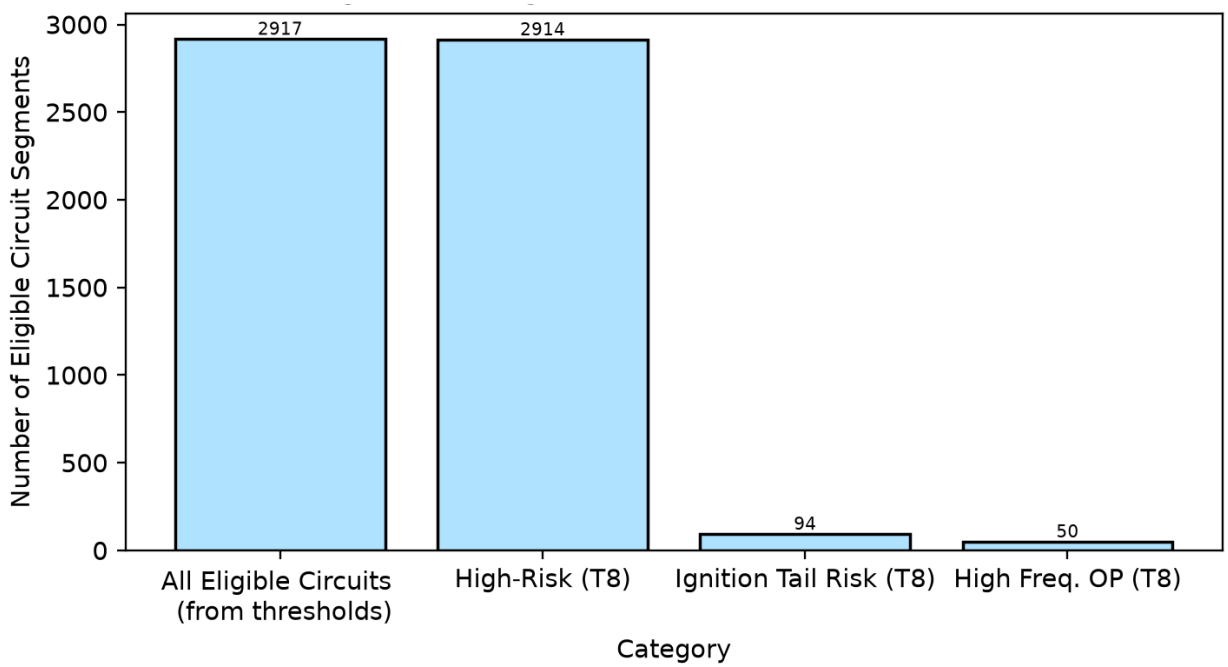
Risk Category	Threshold Value[1]	% CS by mile	% of Risk Miles	Risk Eligible Circuit Segments	Risk and Geo Eligible (Passed Screen 1)	Confirmed Projects (Passed Screen 3)	Overall Utility Risk in Million $ (Confirmed Projects)	Mileage (Confirmed Projects)	Average Overall Utility Risk in Million $/Mile (Confirmed Projects)
High-Risk	29,879	34.82	75.46	2,917	2,914	28	61.98	253.49	0.245
Ignition Tail Risk	52.437	0.96	2.66	94	94	2	6.55	42.53	0.154
High Frequency Outage Program Risk	5,559	1.00	2.43	50	50	2	5.63	21.17	0.266

This table shows the project level thresholds and percentages of circuit segments that fall into each risk category relative to the system.

[1] High-Risk Threshold in $ of Overall Utility Risk per Overhead Mile. Ignition Tail Risk Threshold in Million $ per Ignition. High Frequency Outage Program Threshold in Outage Minutes per Year.

1.5 Eligible Circuits Breakdown

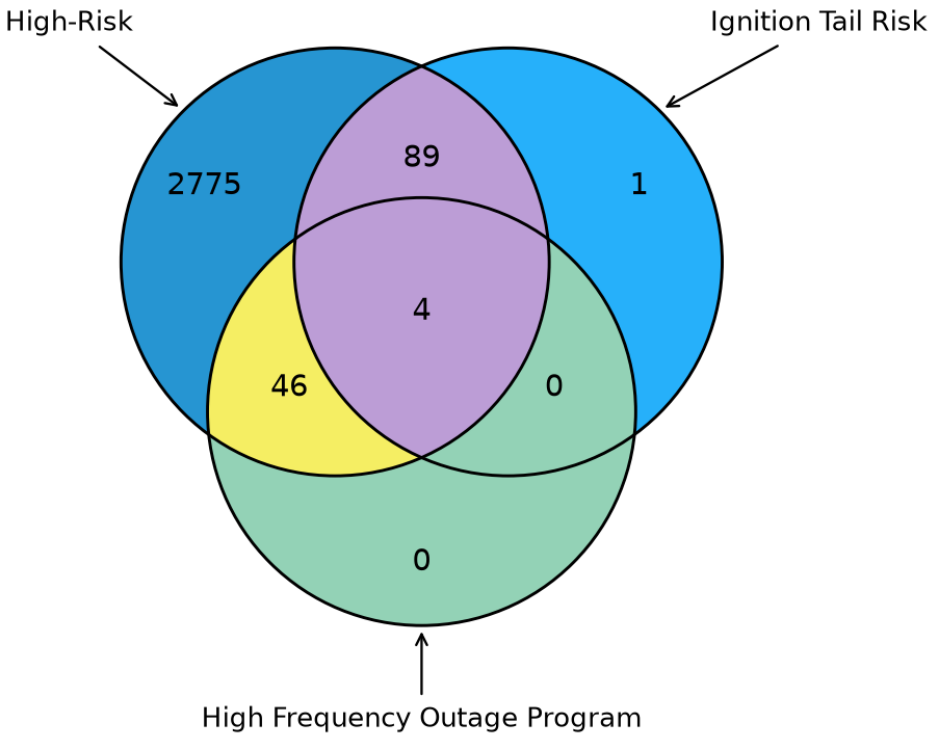
Figure 1.5: Eligible Circuits Breakdown (Counts)



This figure shows all eligible circuit segments by their risk category type(s). Note that some circuit segments fall into multiple categories, so the total number of eligible circuit segments does not equal the sum of circuit segments in each risk category type.

1.6 Circuit Eligibility Breakdown by Risk Category

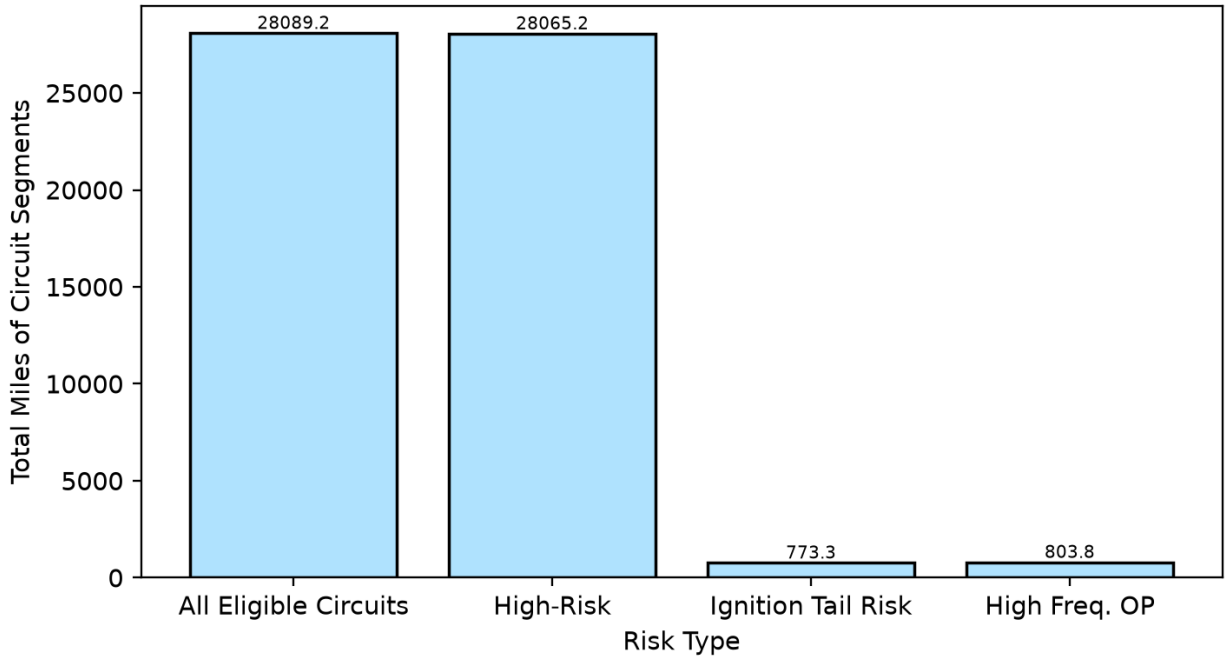
Figure 1.6: Circuit Eligibility Breakdown, Eligible Segments by Risk Category



This figure shows all eligible circuit segments by their risk category type(s). Circuit segments that fall into multiple risk categories will overlap into multiple circles.

1.7 Eligible Circuit Miles Breakdown by Risk Category

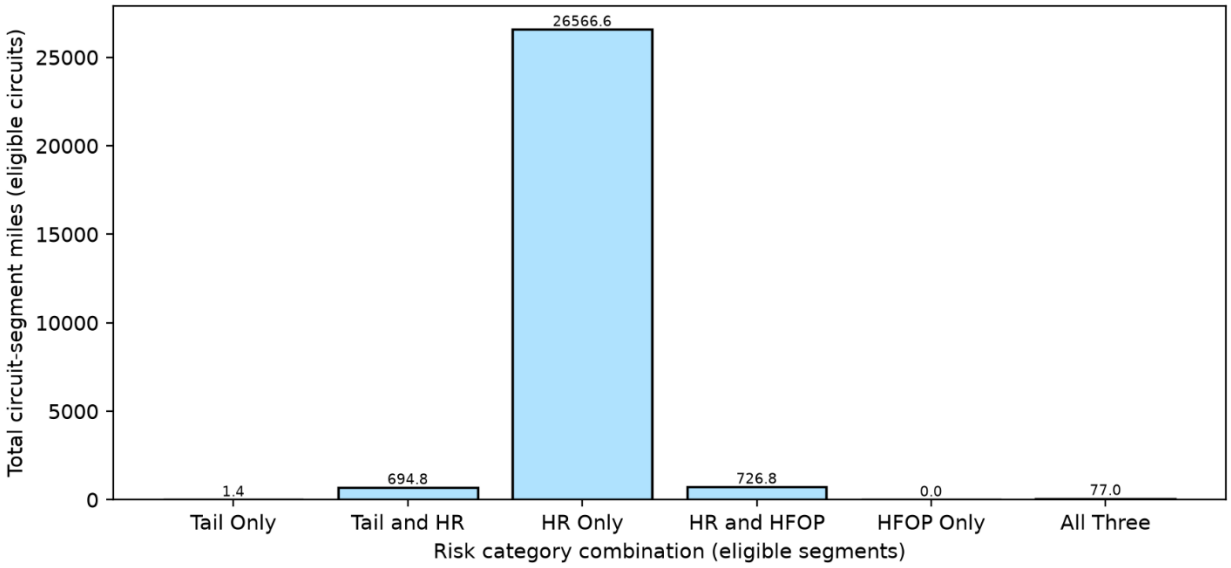
Figure 1.7 Eligible Circuit Miles Breakdown by Risk Category



Breakdown of total mileage of all eligible circuit segments by their risk category type. Note that some circuit segments fall into multiple categories, so the total number of eligible circuit segments' mileage does not equal the sum of all the mileage in each risk category type.

1.8 Eligible Circuit Miles Breakdown by Risk Type

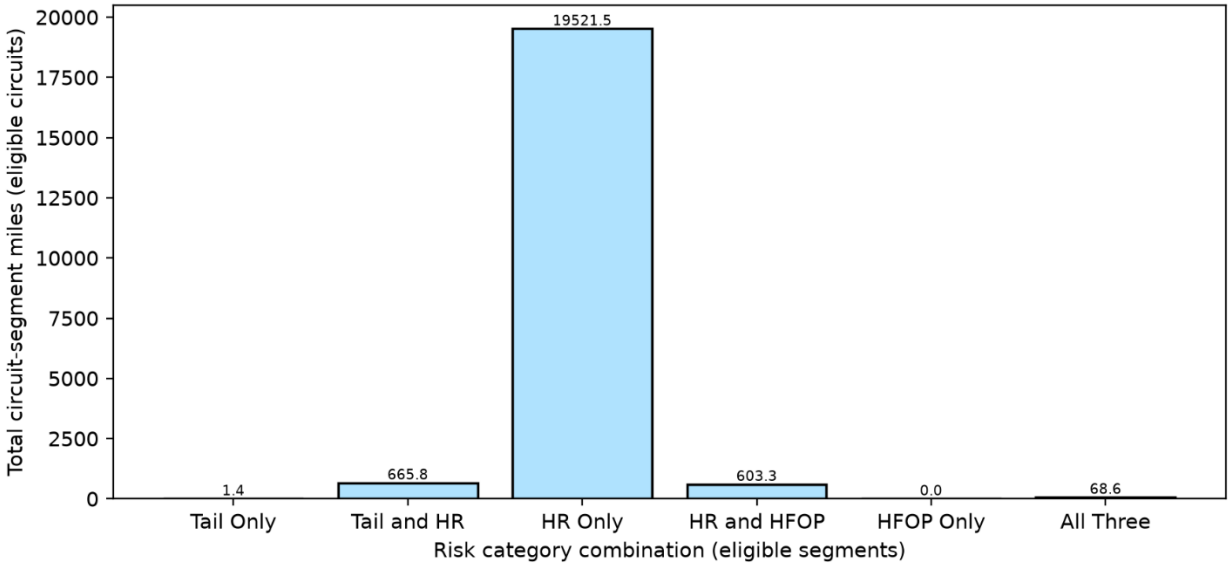
Figure 1.8: Eligible Circuit Miles Breakdown by Risk Type



This bar chart shows eligible circuit segment mileage broken out by each possible combination of the three risk categories (High-Risk, Ignition Tail Risk, High Frequency Outage Program). Risk category membership is taken from the Circuit Segment Risk Score Table and can include multiple categories per segment. Each bar reports total miles (sum of circuit_segment_length) for the labeled combination.

1.9 Eligible Risk Miles Breakdown by Risk Type

Figure 1.9: Eligible Risk Miles Breakdown by Risk type



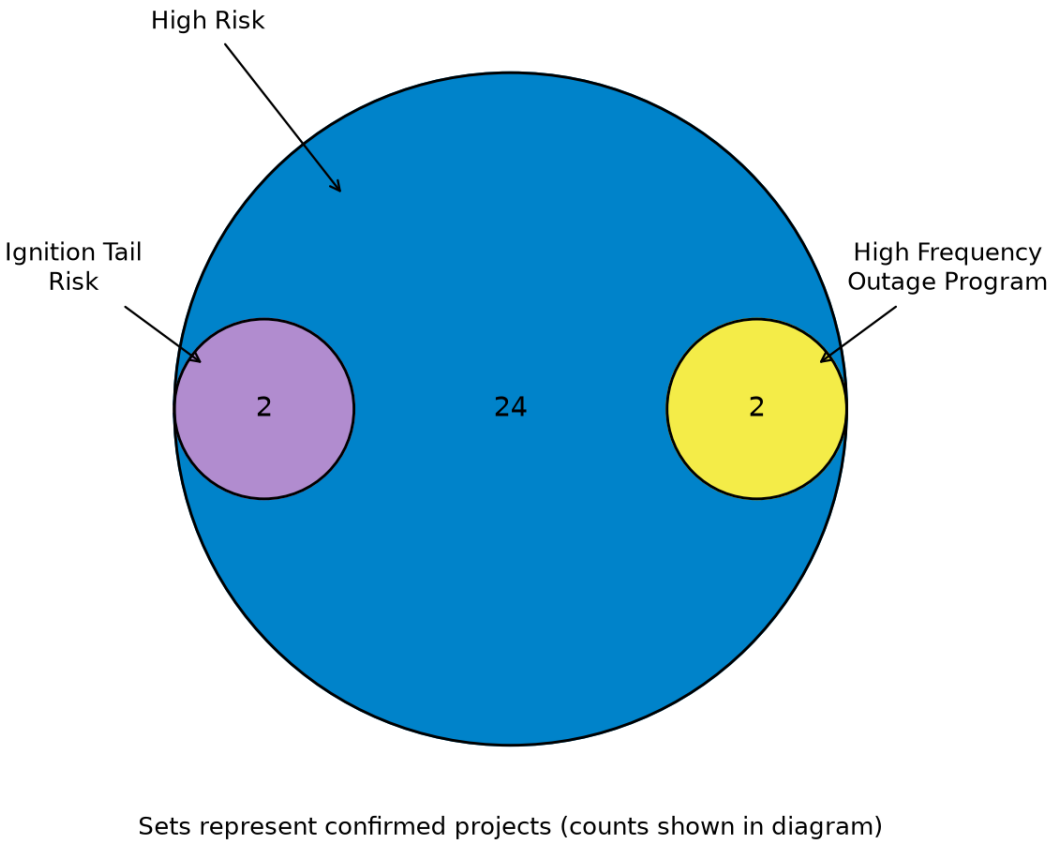
Same as above, but for risk miles instead of total circuit segment length.

Chapter 2. Portfolio Information

In this chapter, we break down the risk and mileage for projects found in PG&E's Portfolio based on where they fall into one or more risk categories: High-Risk, Ignition Tail Risk, High Frequency Outage Program Risk.

2.1 Project Breakdown

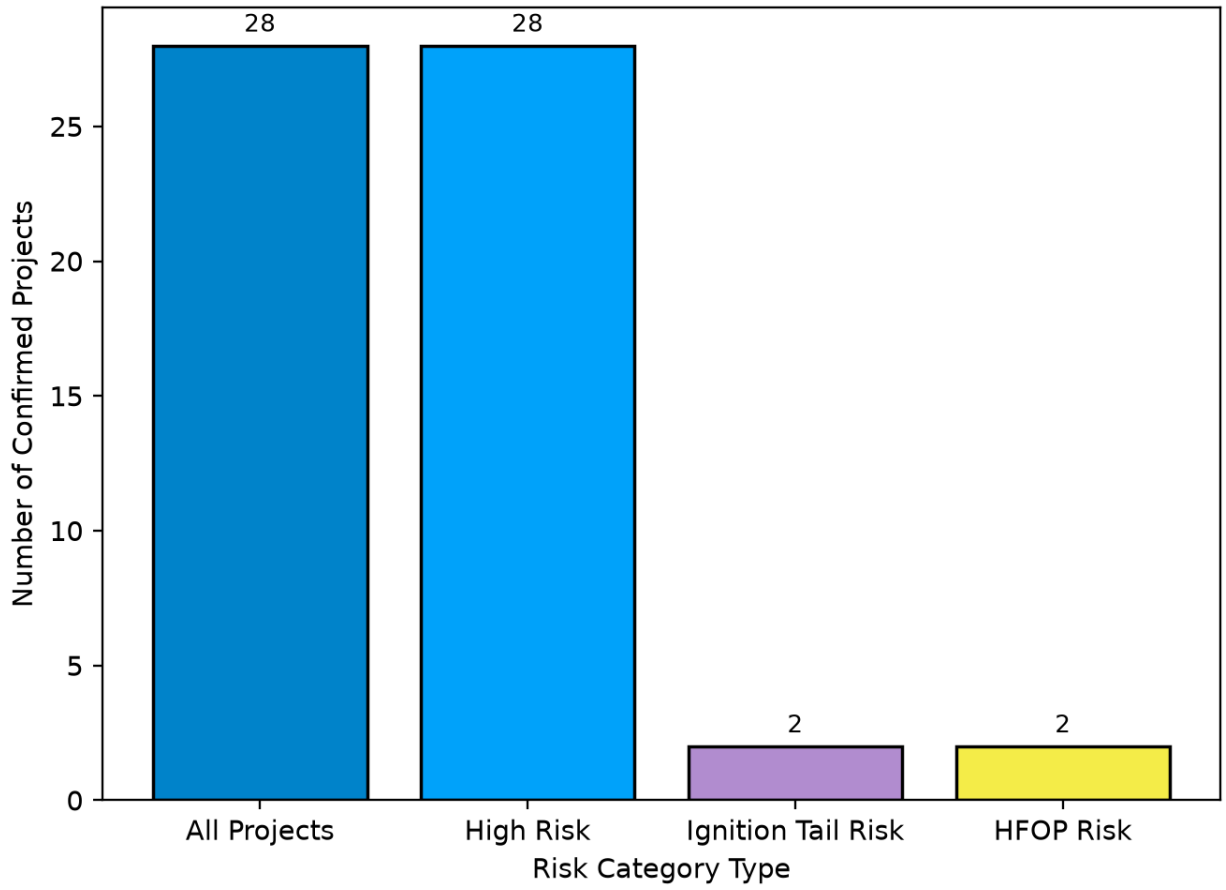
Figure 2.1: Project Breakdown: 28 Total Confirmed Projects



Venn diagram of all confirmed projects by their risk category type(s). Projects that fall into multiple risk categories will overlap into multiple circles. The diagram shows the intersection and unique counts for each category combination.

2.2 Project Type Breakdown

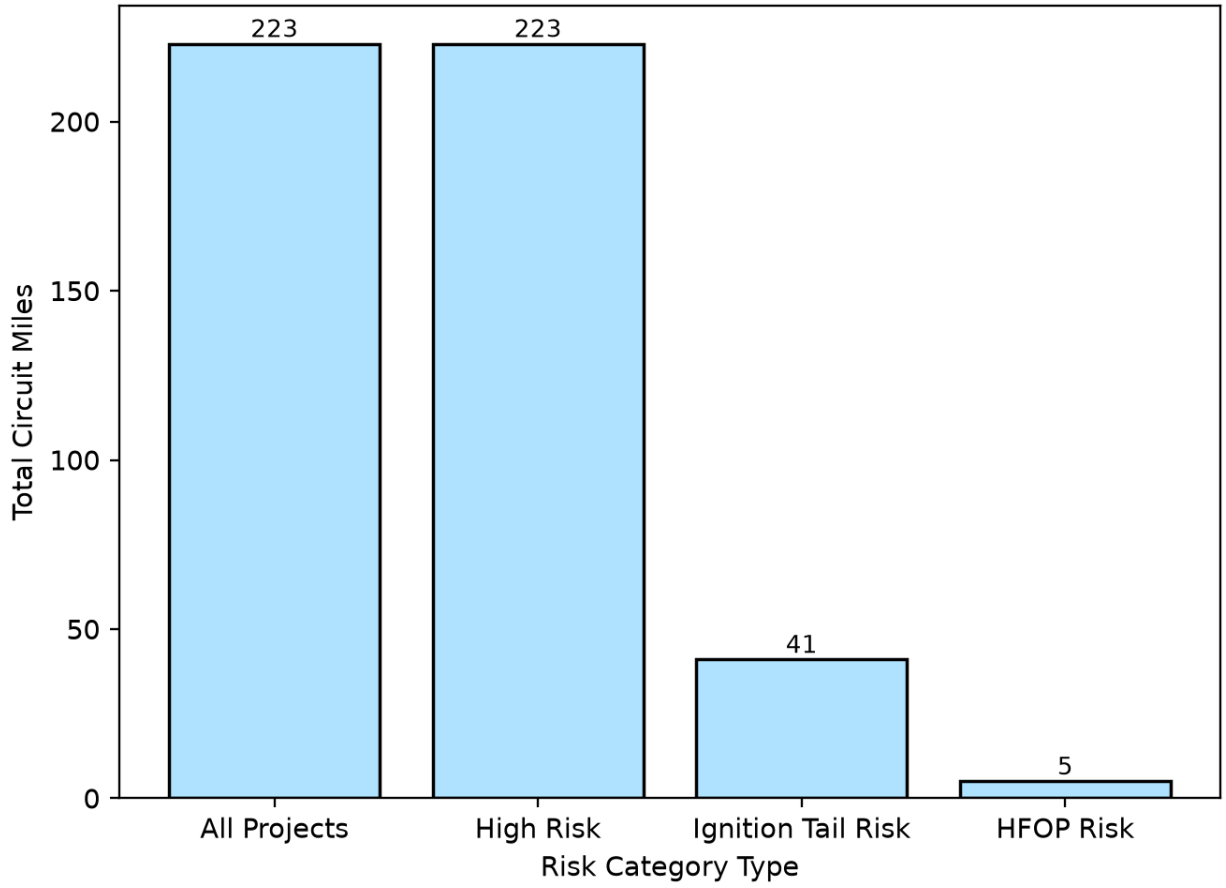
Figure 2.2: Project Type Breakdown by Count



Bar chart showing the count of confirmed projects in each risk category. Note that some projects fall into multiple categories, so the total number of projects does not equal the sum of all risk category types. Each bar is color-coded to match the Venn diagram.

2.3 Project Risk Miles Breakdown

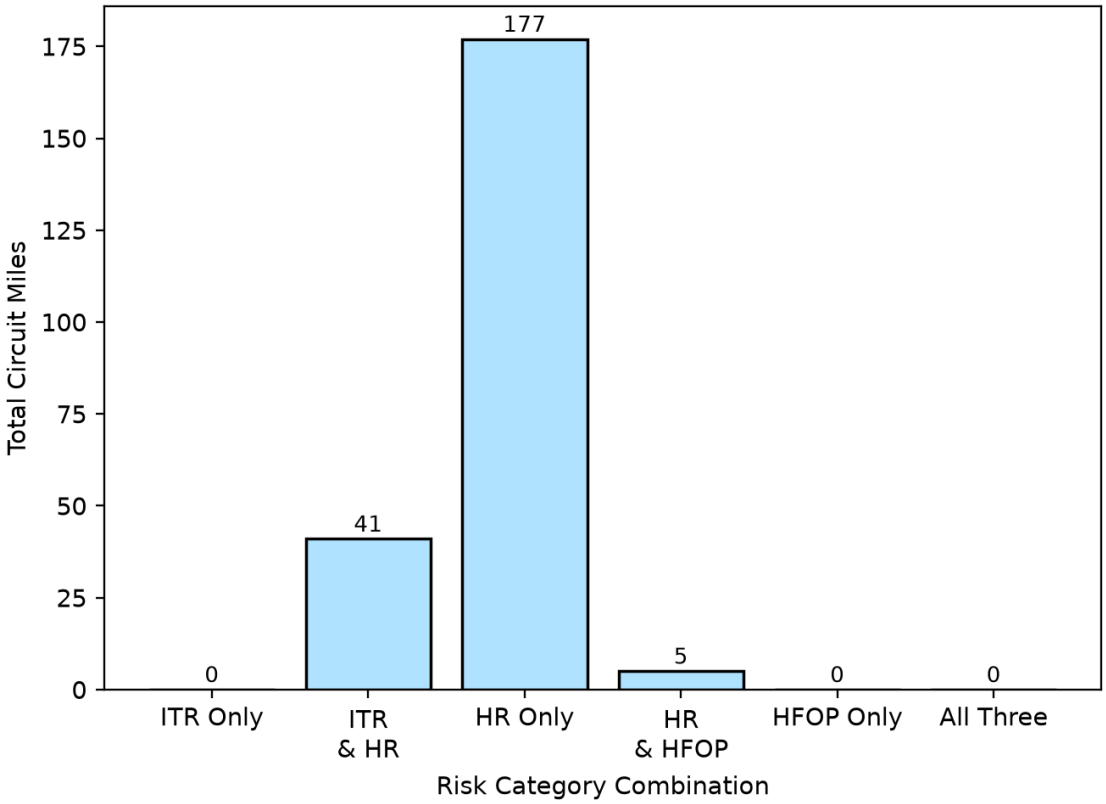
Figure 2.3: Project Risk Miles Breakdown



Bar chart displaying risk mileage of confirmed projects by risk category type. Values are rounded to the nearest mile. Note that some projects fall into multiple categories, so the total mileage across all projects does not equal the sum of mileage in each risk category type.

2.4 Project Circuit Miles Breakdown

Figure 2.4: Project Circuit Miles Breakdown by Risk Type



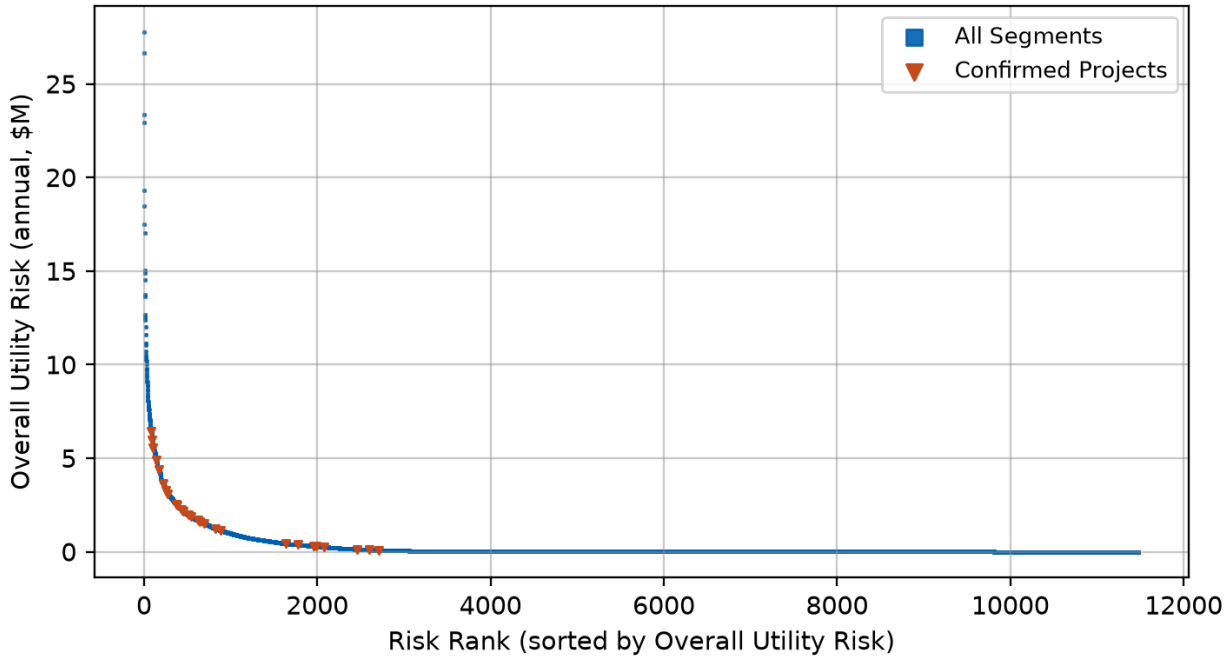
Breakdown of risk length mileage of confirmed projects by their risk category type, with each possible combination of risk category shown.

Chapter 3. Overall Utility Risk Overview

In this chapter, we report on the distribution of Overall Utility Risk (OUR) and Overall Utility Risk per mile (Risk Density).

3.1 Distribution of Overall Utility Risk

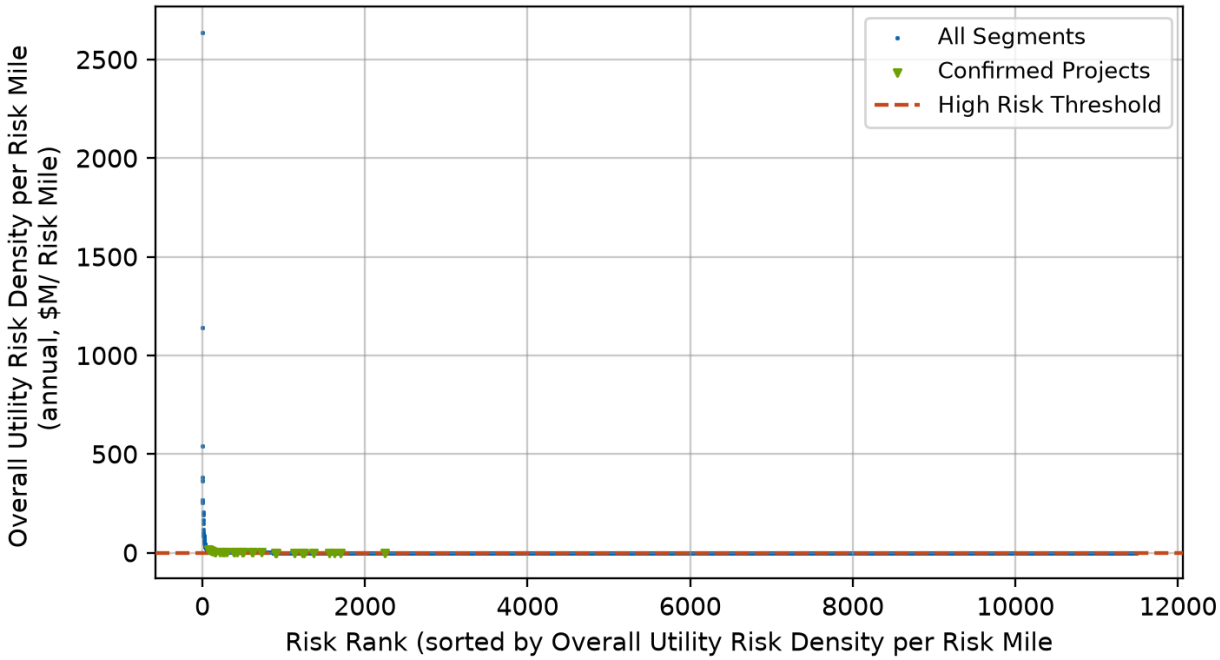
Figure 3.1: Distribution of Overall Utility Risk



This figure shows the Overall Utility Risk per circuit segment/project plotted against their risk rank. This plot visualizes the trend of overall risk across projects and their respective risk rank. Confirmed projects are highlighted in red.

3.2 Distribution of Overall Utility Risk Density per Risk Mile

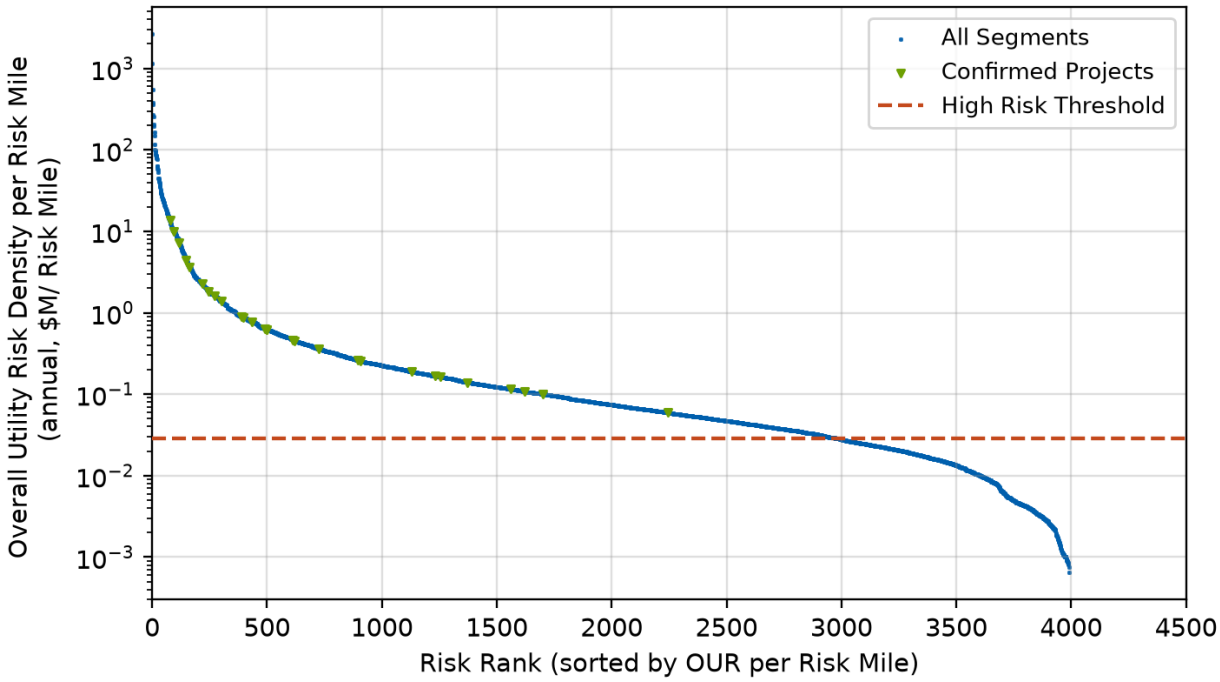
Figure 3.2: Distribution of Overall Utility Risk Density per Risk Mile



This figure shows the Overall Utility Risk per Risk mile for each circuit segment/project plotted against their risk rank.

3.3 Distribution of Overall Utility Risk Density per Risk Mile

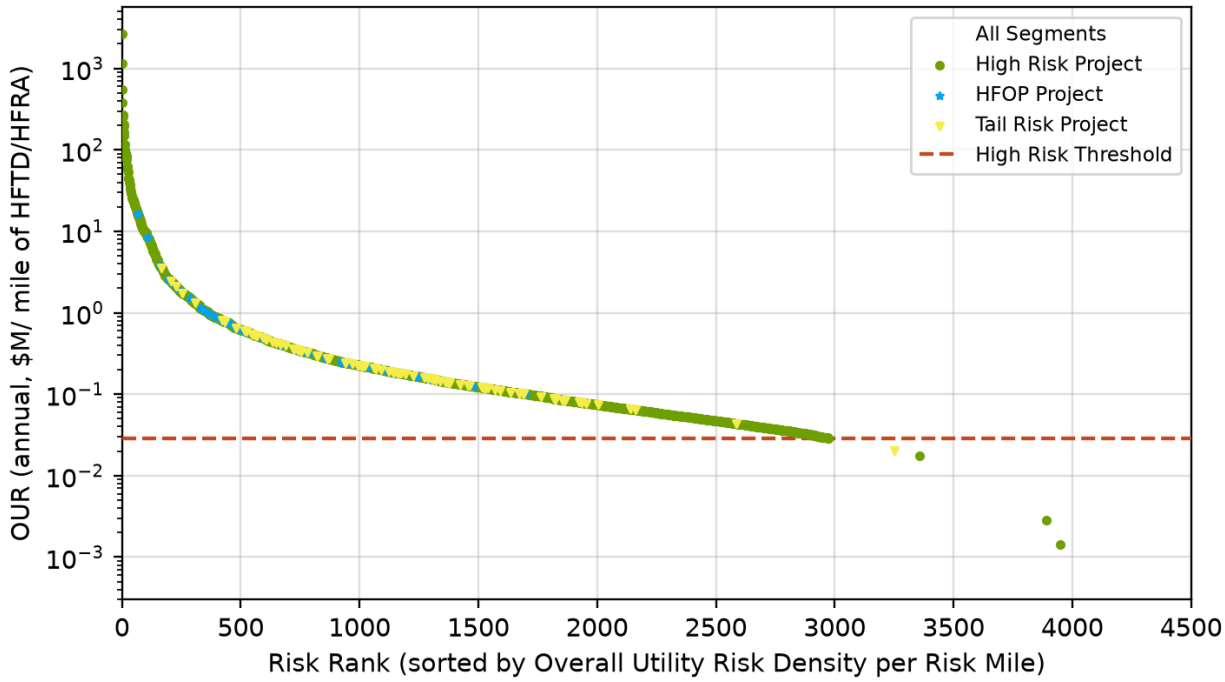
Figure 3.3: Distribution of Overall Utility Risk Density per Risk Mile



This figure shows the Overall Utility Risk per Risk mile (risk density per HFTD/HFRA Miles) for each circuit segment/project plotted against their risk rank (0 risk length segments excluded).

3.4 Distribution of Project Types (Log Scale) (only HFTD/HFRA)

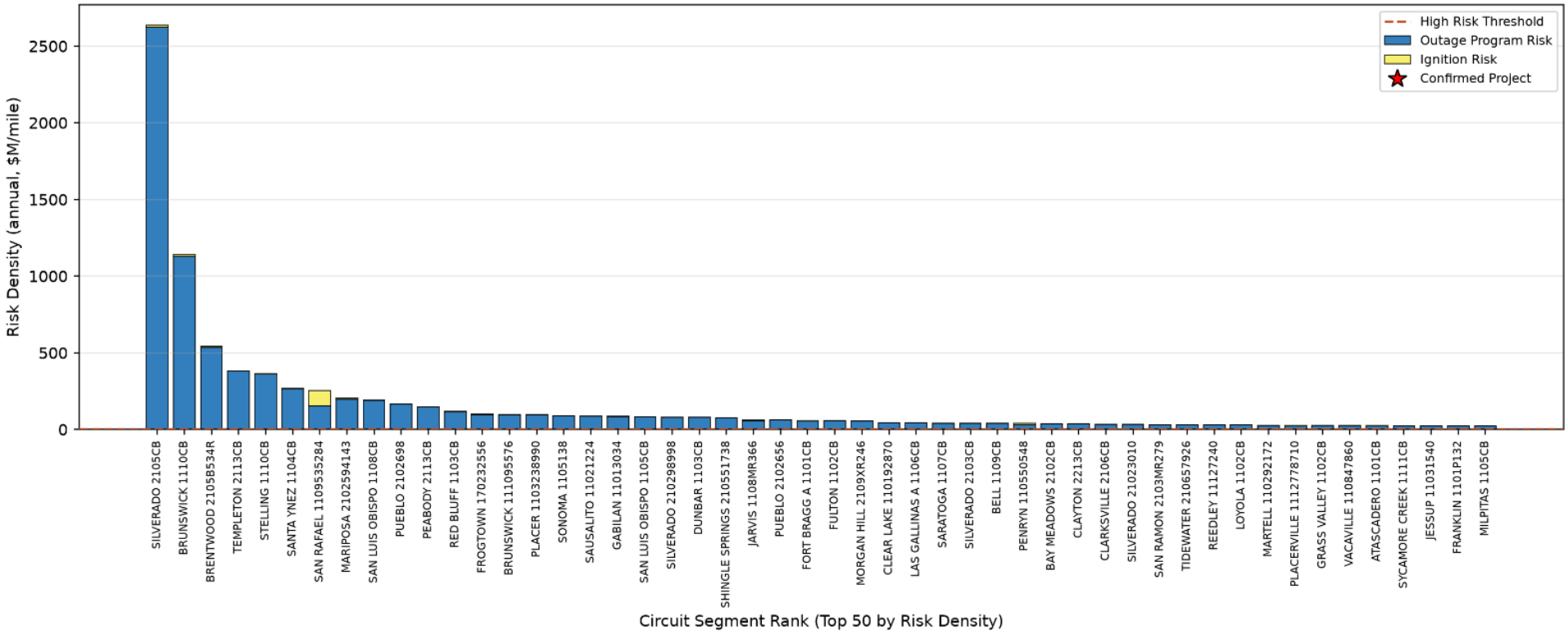
Figure 3.4: Distribution of Project Types (Log Scale) (only HFTD/HFRA)



Segment eligibility as labeled by Table 08.

3.5 Risk Density Breakdown of the Top 50 OUR per Risk Mile Segments

Figure 3.5: Risk Density Breakdown of the Top 50 OUR per Risk Mile Segments

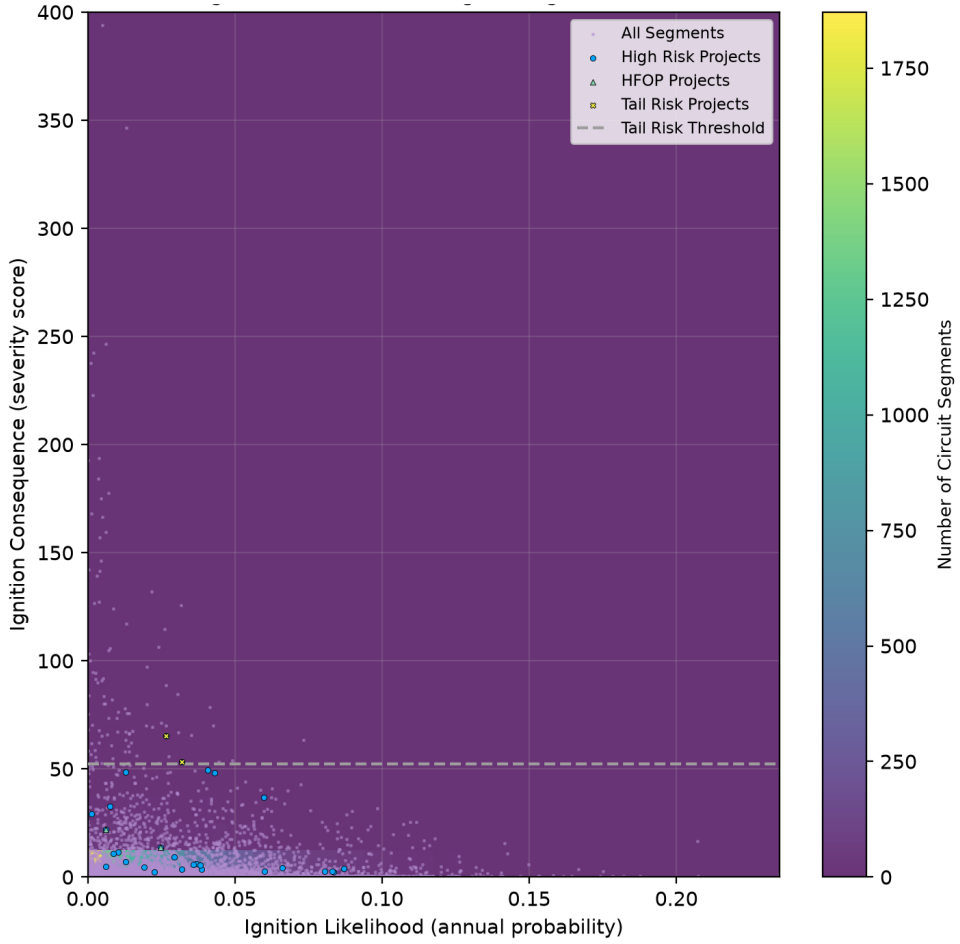


This figure shows the top 50 High-Risk circuit segments by their dollarized risk per year. Each stacked bar shows the contribution of Ignition Risk (yellow) and Outage Program Risk (blue) to the total Overall Utility Risk density.

Chapter 4. Ignition Risk

4.1 Per-Circuit Segment Ignition Risk

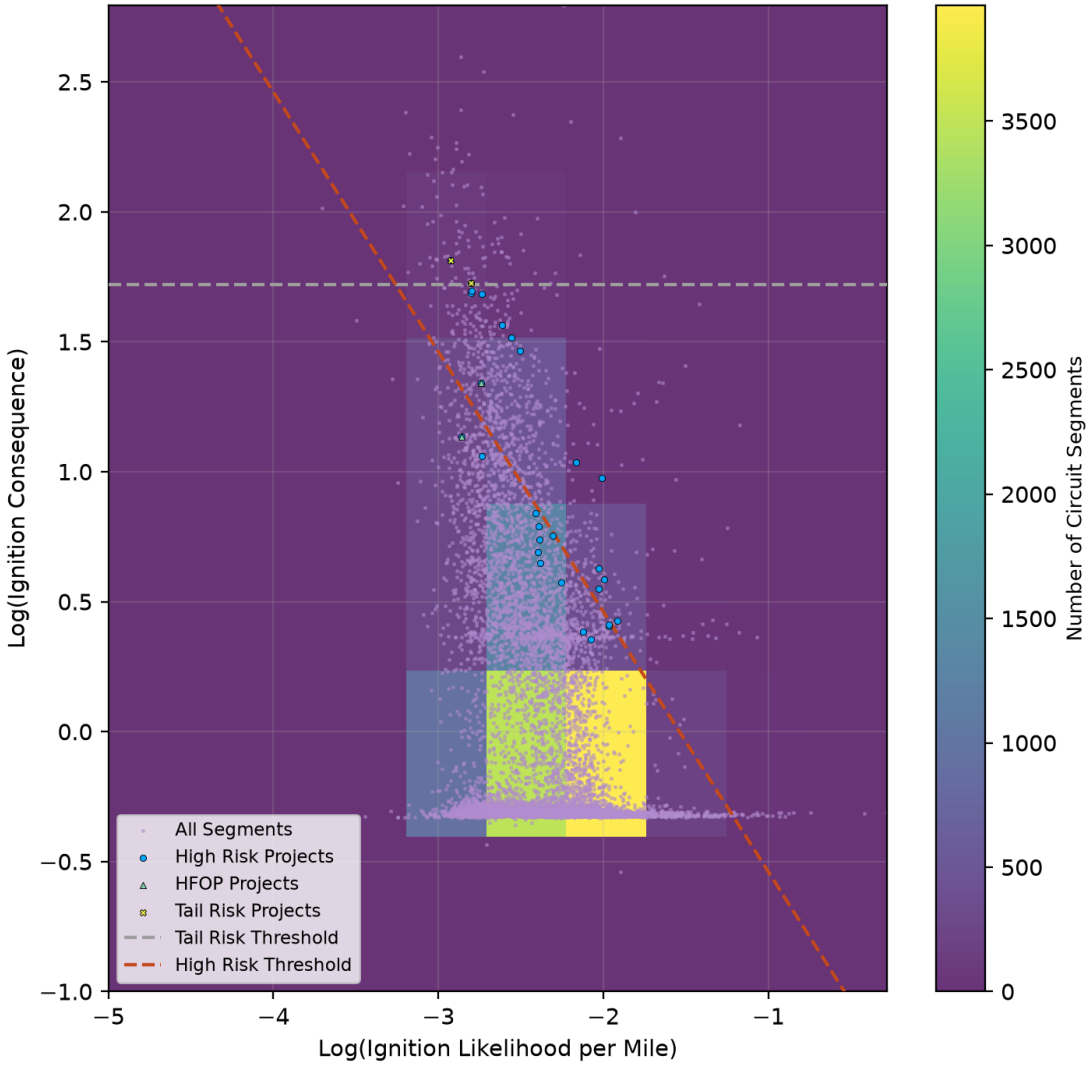
Figure 4.1: Per-Circuit Segment Ignition Risk



This heatmap shows ignition consequence vs. likelihood per mile on a linear scale, revealing risk density patterns. The color gradient indicates the density of circuit segments with similar risk profiles. High-Risk Projects are shown as blue circles, High Frequency Outage Program (HFOP) projects as green triangles, and Ignition Tail Risk projects as yellow crosses. The horizontal grey dashed line marks the ignition tail risk threshold.

4.2 Ignition Risk Density (Log-Log Scale)

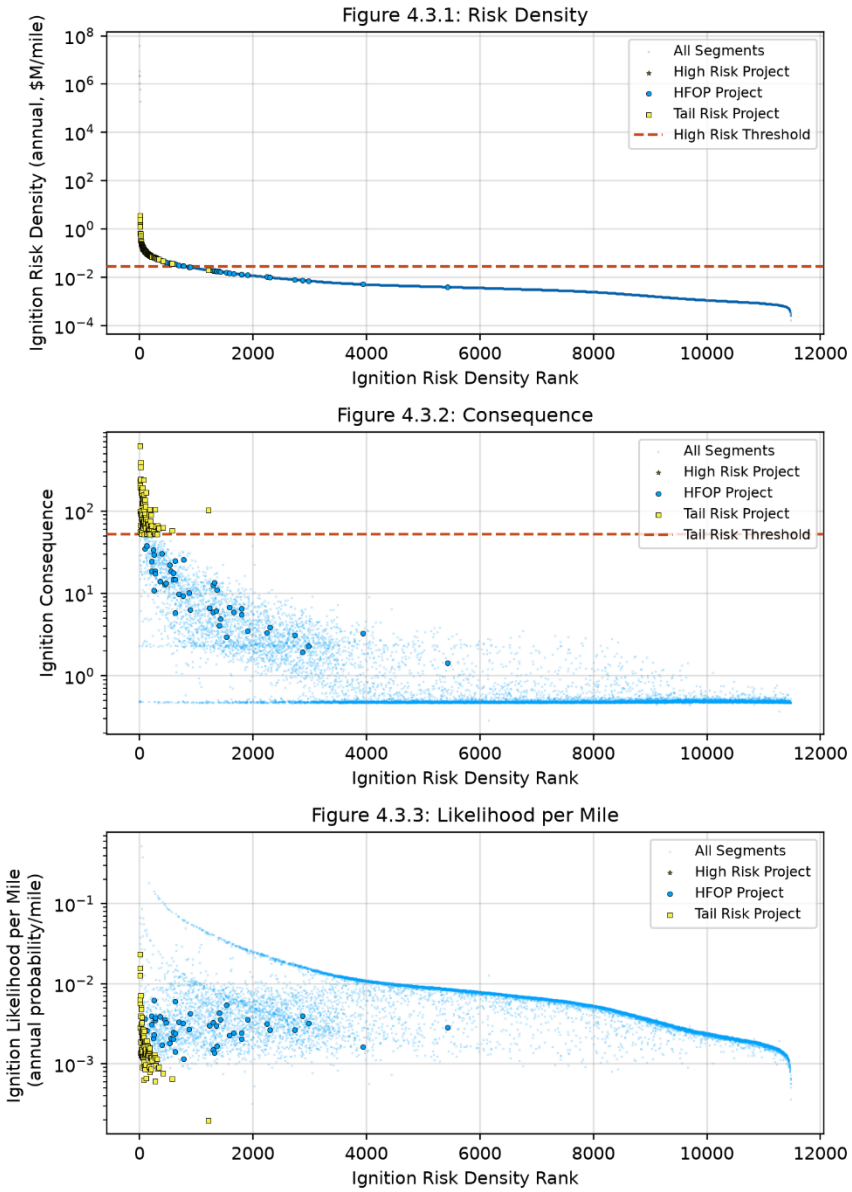
Figure 4.2: Ignition Risk Density (Log-Log Scale)



This heatmap shows ignition consequence vs. likelihood per mile on a log-log scale, revealing risk density patterns. The color gradient indicates the density of circuit segments with similar risk profiles. High-Risk Projects are shown as blue circles, High Frequency Outage Program (HFOP) Projects as green triangles, and Ignition Tail Risk projects as yellow crosses. The horizontal grey dashed line marks the ignition tail risk threshold. The diagonal red dashed line shows the High-Risk Threshold. Note that the High-Risk Threshold is measured as overall utility risk, not ignition risk alone. It is shown here for context.

4.3 Ignition Risk Distribution Matrices

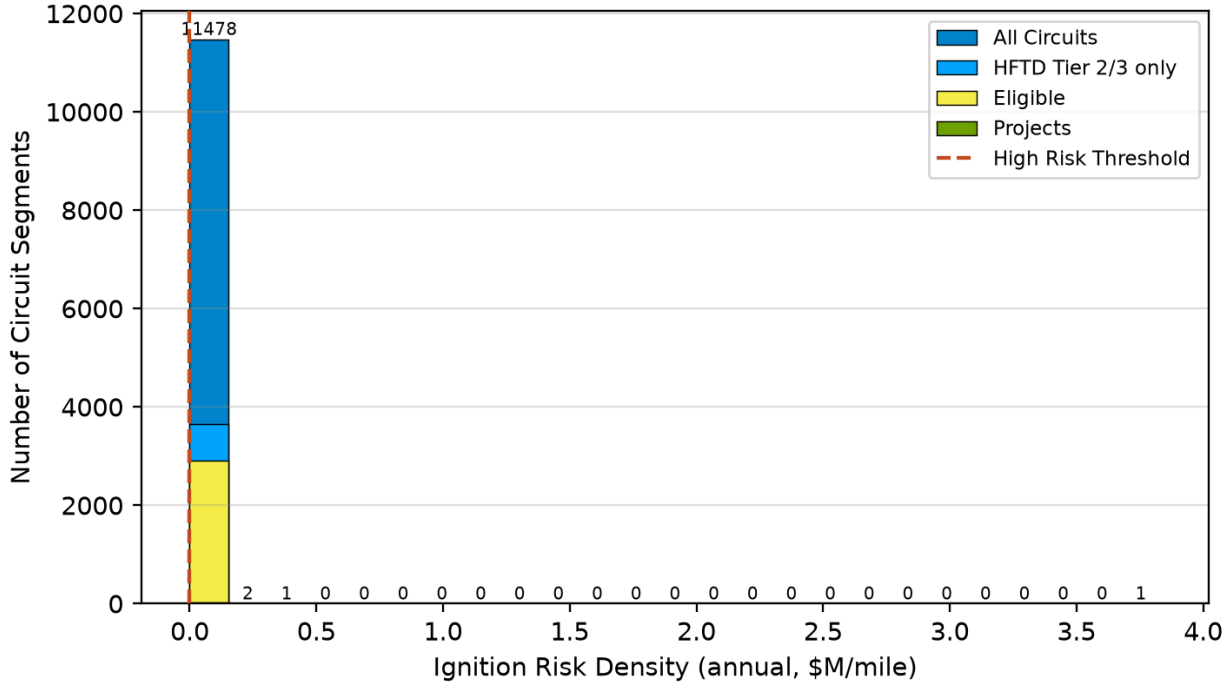
Figures 4.3.1 - 4.3.3: Ignition Risk Distribution (Per–Risk Mile)



These three graphs show all circuit segments ranked by ignition risk density (from highest to lowest). The top subplot (4.4.1) displays Ignition Risk per Mile (risk density), the middle subplot (4.4.2) shows Ignition Consequence, and the bottom subplot (4.4.3) displays Ignition Likelihood per Mile. All three plots use the same x-axis ranking (sorted by Ignition Risk Density) to facilitate comparison across metrics. High-Risk Projects are shown as green stars, High Frequency Outage Program (HFOP) Projects as blue circles, and Ignition Tail Risk projects as yellow squares. The red dashed line in subplot 1 marks the High-Risk Threshold. The pink dashed line in subplot 2 marks the ignition tail risk threshold.

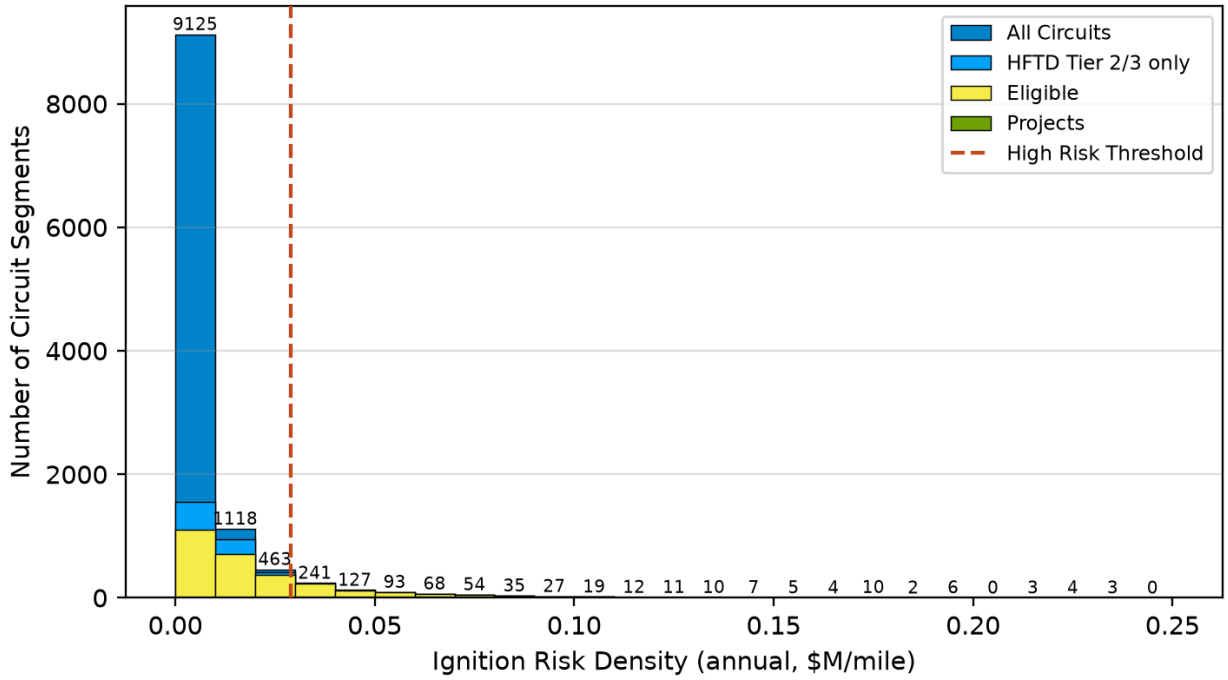
4.4 Histogram of Ignition Risk Density

Figure 4.4: Histogram of Ignition Risk Density



4.5 Histogram of Ignition Risk Density (zoomed, shorter x range)

Figure 4.5: Histogram of Ignition Risk Density Zoom in



(Same as above with different x-axis range.)

4.6 Risk Density Breakdown of the Top 50 Ignition Risk Density Circuits

Figure 4.6: Risk Density Breakdown of the Top 50 Ignition Risk Density Circuits

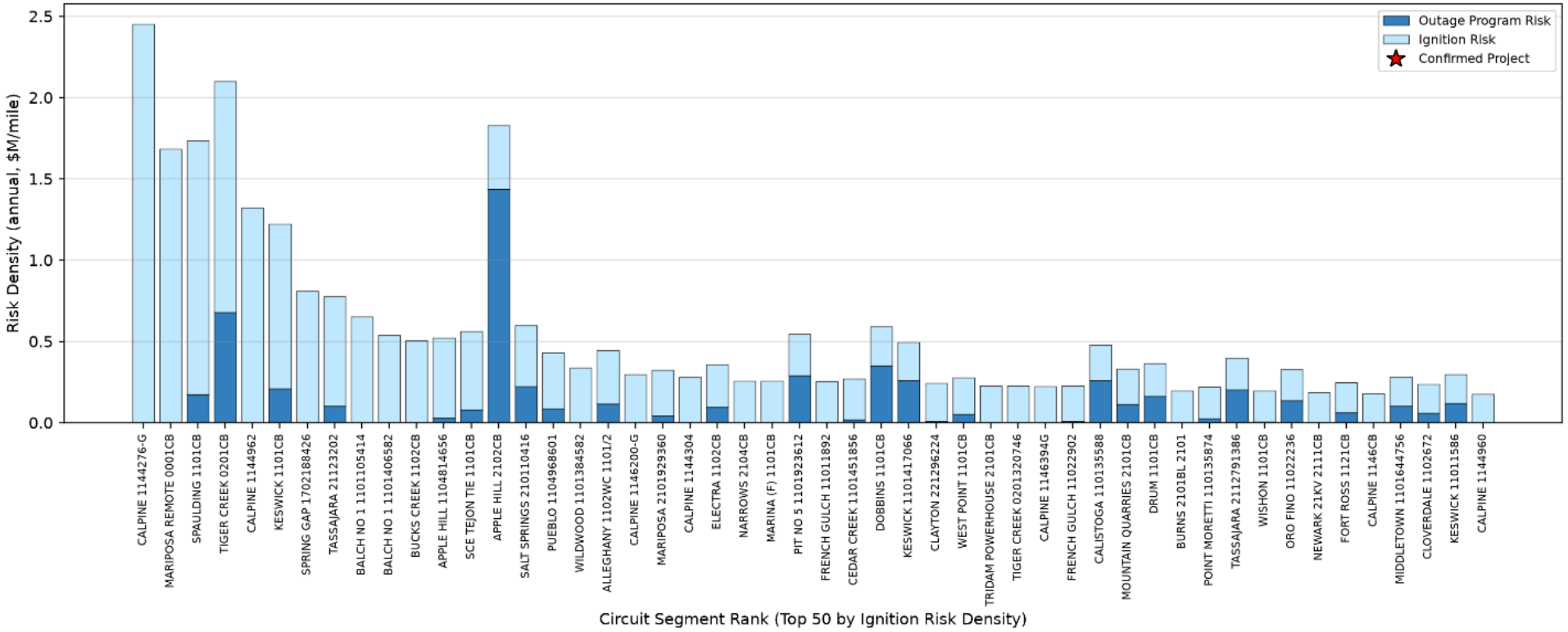


Figure 4.6: Top 50 circuit segments by ignition rank.

4.7 Risk Density Breakdown of the Top 50 Ignition Risk Density Circuits (excluding Outage Program Risk)

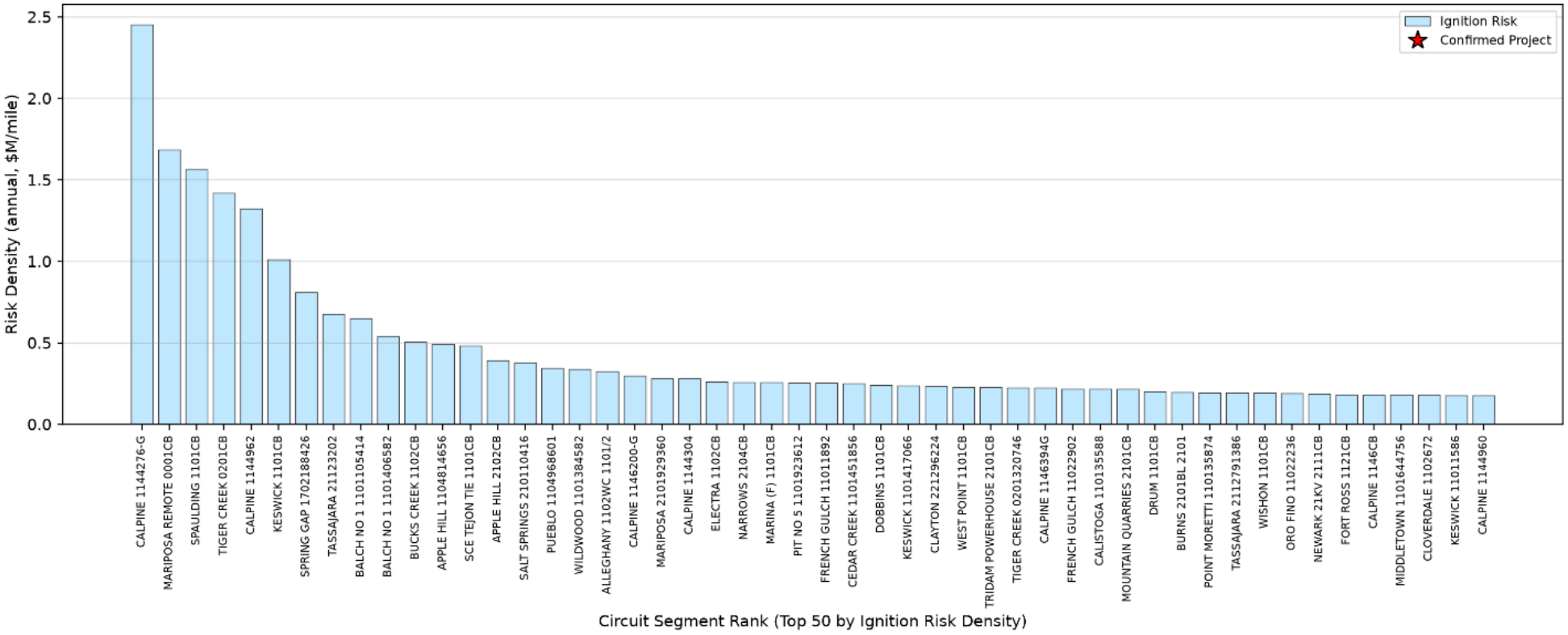


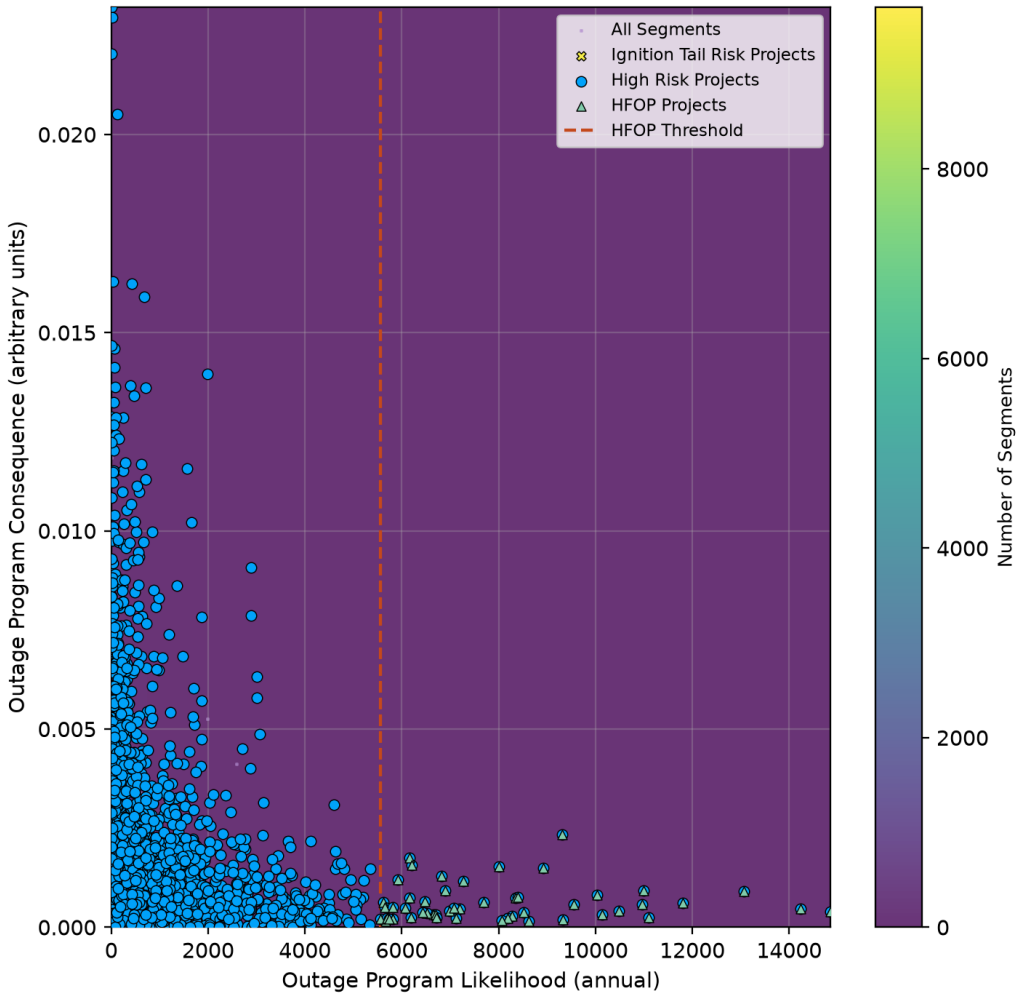
Figure 4.7: Risk Density Breakdown of the Top 50 Ignition Risk Density Circuits

Same as above, excluding Outage Program Risk.

Chapter 5. Outage Program Risk

5.1 Per-Circuit Segment Outage Program Risk

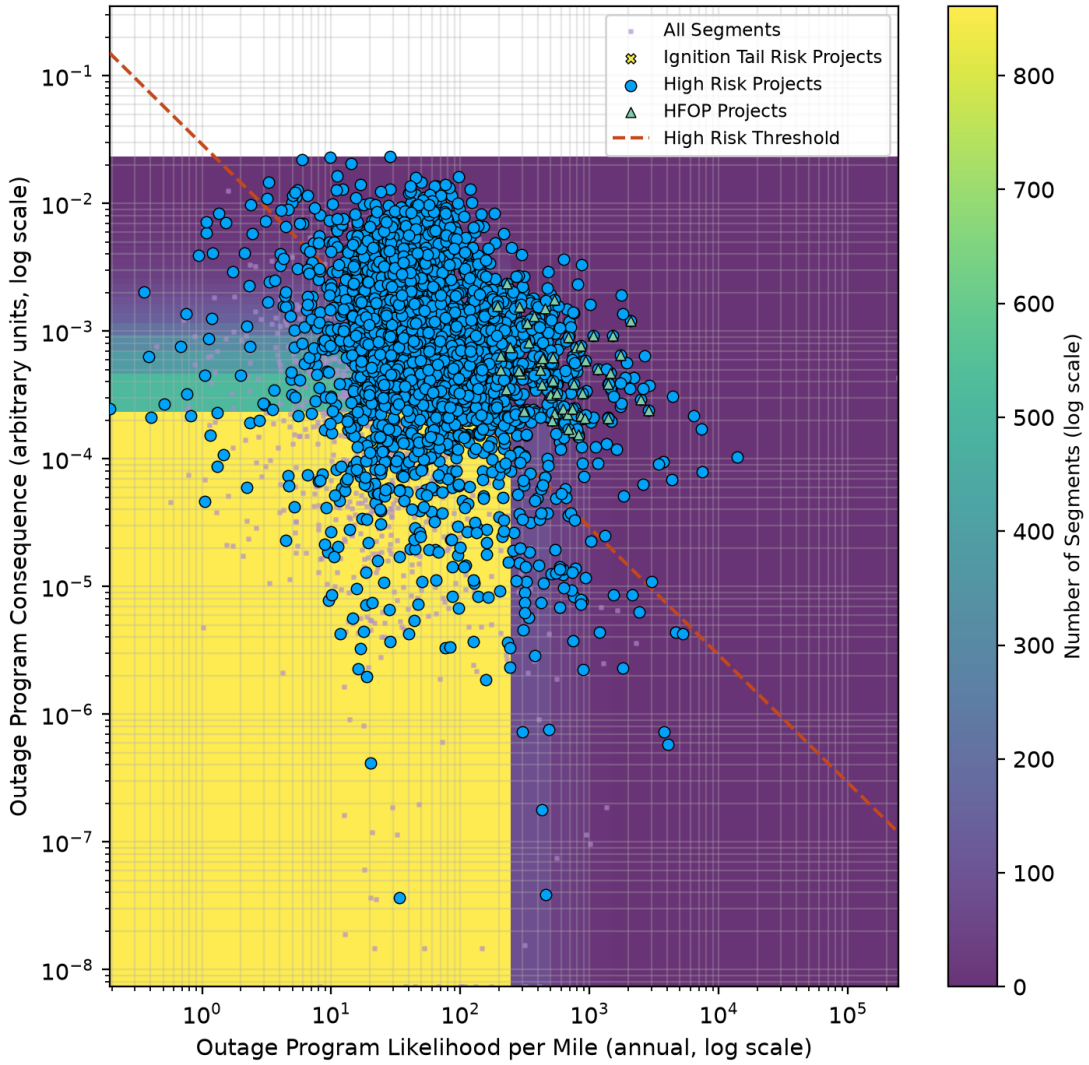
Figure 5.1: Per-Circuit Segment Outage Program Risk



Heatmap showing the outage program consequence vs. likelihood for each circuit segment and eligible project. The color of the heatmap indicates the number of segments in that risk profile. Colors range from dark blue for low counts to green and yellow for higher counts.

5.2 Outage Program Risk Density

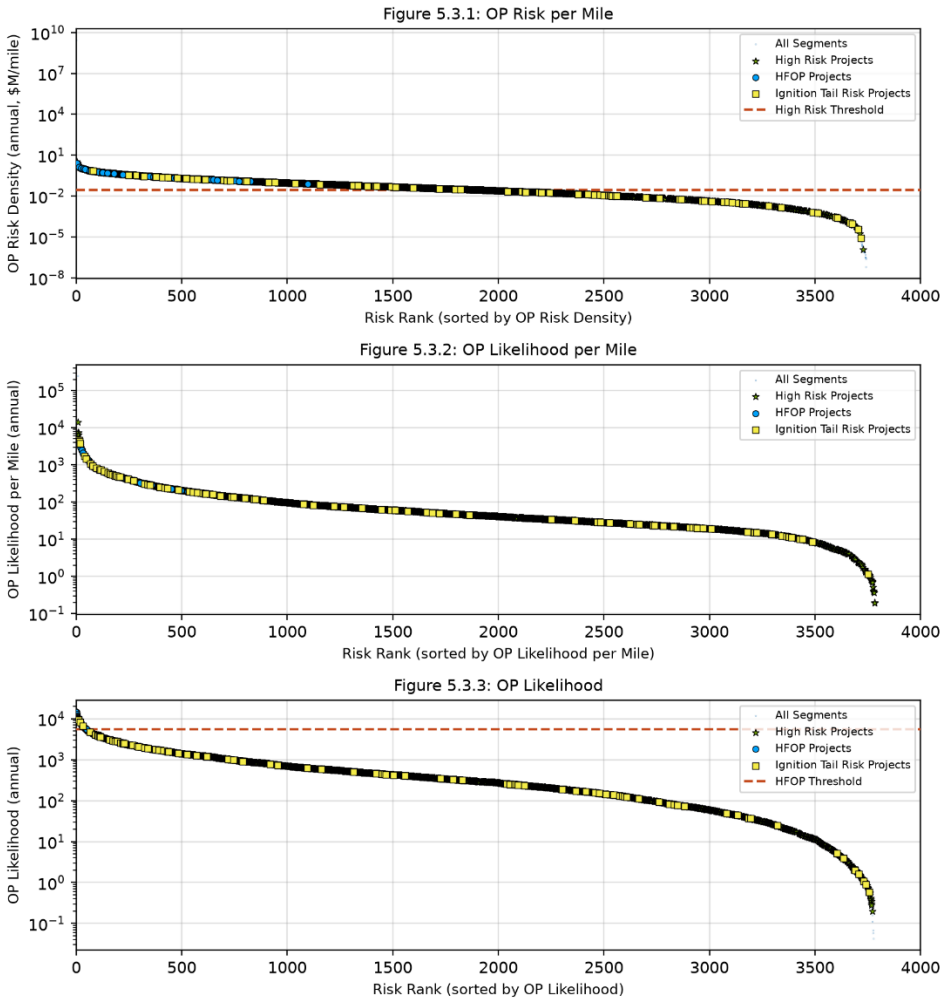
Figure 5.2: Outage Program Risk Density



Heatmap showing log(Outage Program Consequence) vs log(Likelihood per Mile) for every circuit segment. The color intensity indicates the number of segments in that risk profile using a logarithmic scale. This log-log visualization reveals the risk density relationship, where segments above the red dashed line (High-Risk Threshold hyperbola) have risk density exceeding the threshold. The plot uses logarithmic scales on both axes to accommodate the wide range of values, where each major tick represents a 10-fold increase.

5.3 Outage Program Risk Distribution Matrices (5.3.1 - 5.3.3)

Figures 5.3.1 – 5.3.3: Outage Program Risk Distribution



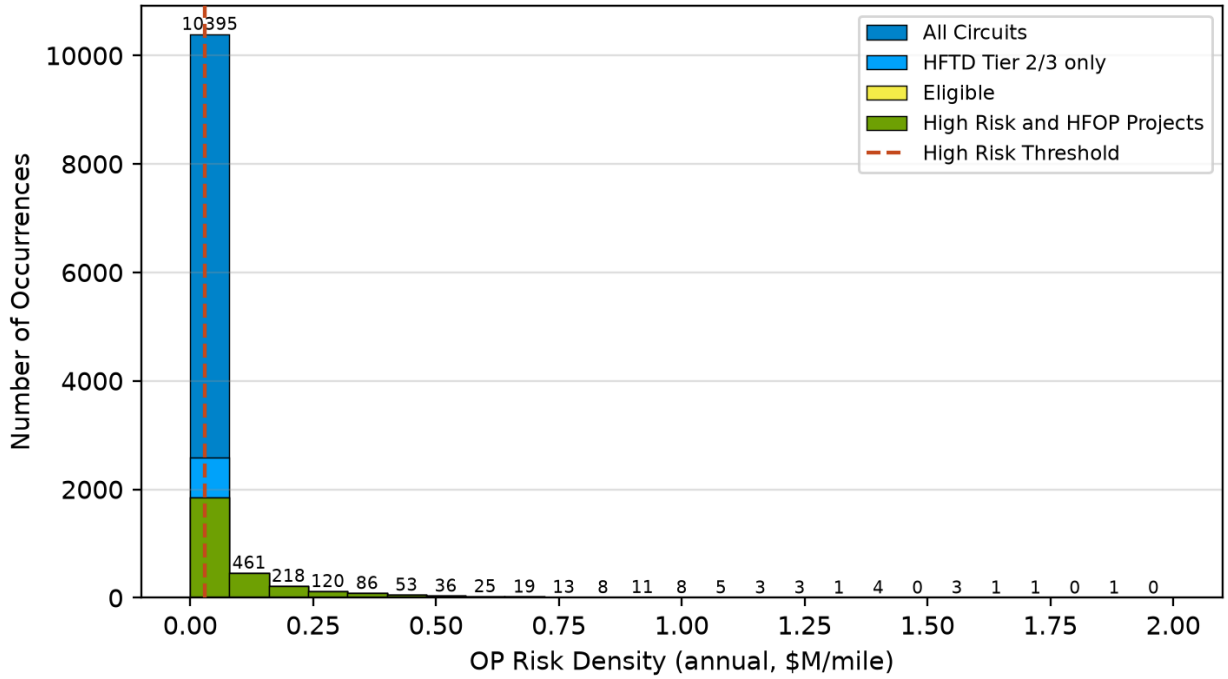
These three panels show all circuit segments ordered from greatest to least for different Outage Program risk parameters:

- ***Panel 1 (5.3.1):** Outage Program Risk per Mile (risk density) - normalized by segment length*
- ***Panel 2 (5.3.2):** Outage Program Likelihood per Mile - shows likelihood intensity*
- ***Panel 3 (5.3.3):** Outage Program Likelihood (total) - with High Frequency Outage Program (HFOP) threshold shown as orange dashed line*

Each panel uses a different sort order based on the displayed metric. Projects are color-coded: High-Risk (green stars), HFOP (blue circles), and Ignition Tail Risk (yellow squares). The red dashed line in Panel 1 shows the High-Risk Threshold.

5.4 Histogram of Outage Program Risk Density

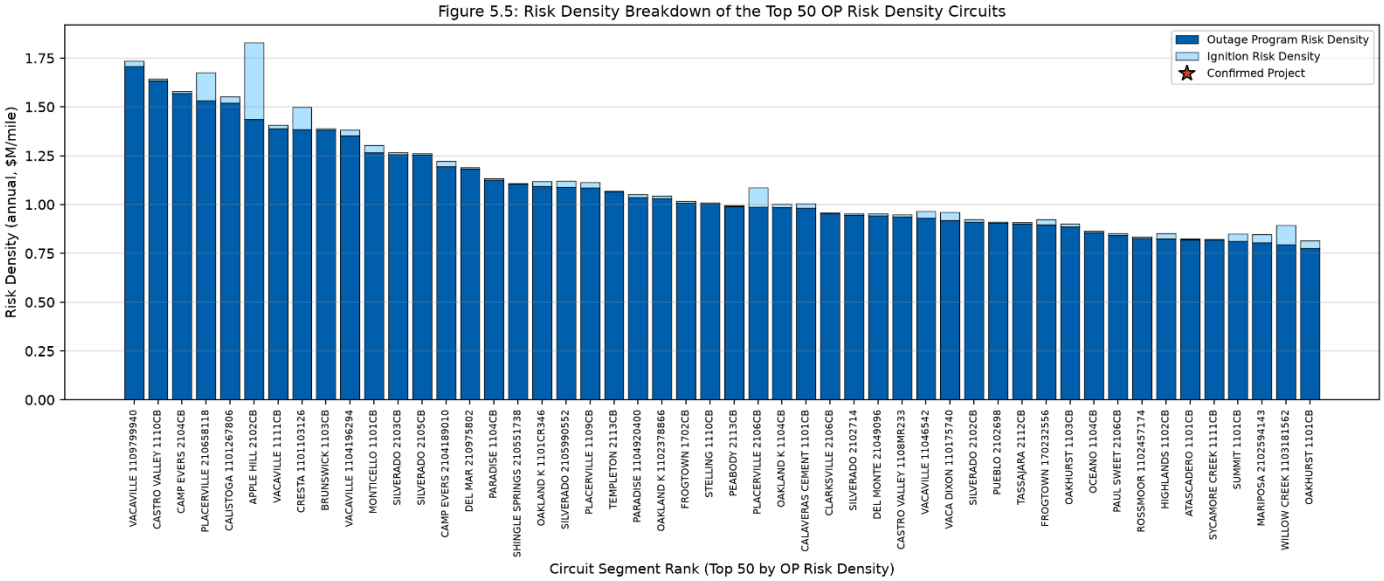
Figure 5.4: Histogram of Outage Program Risk Density



This figure shows the frequency distribution of Outage Program Risk Density values (Outage Program Risk per mile) across different categories of circuit segments. The overlapping histograms reveal only a fraction of the low-density segments lie within HFTD Tier 2/3, but most of those are classified as High-Risk or High Frequency Outage Program (HFOP) Projects.

5.5 Risk Density Breakdown of the Top 50 Outage Program Risk Density Circuits

Figure 5.5: Risk Density Breakdown of the Top 50 Outage Program Risk Density Circuits



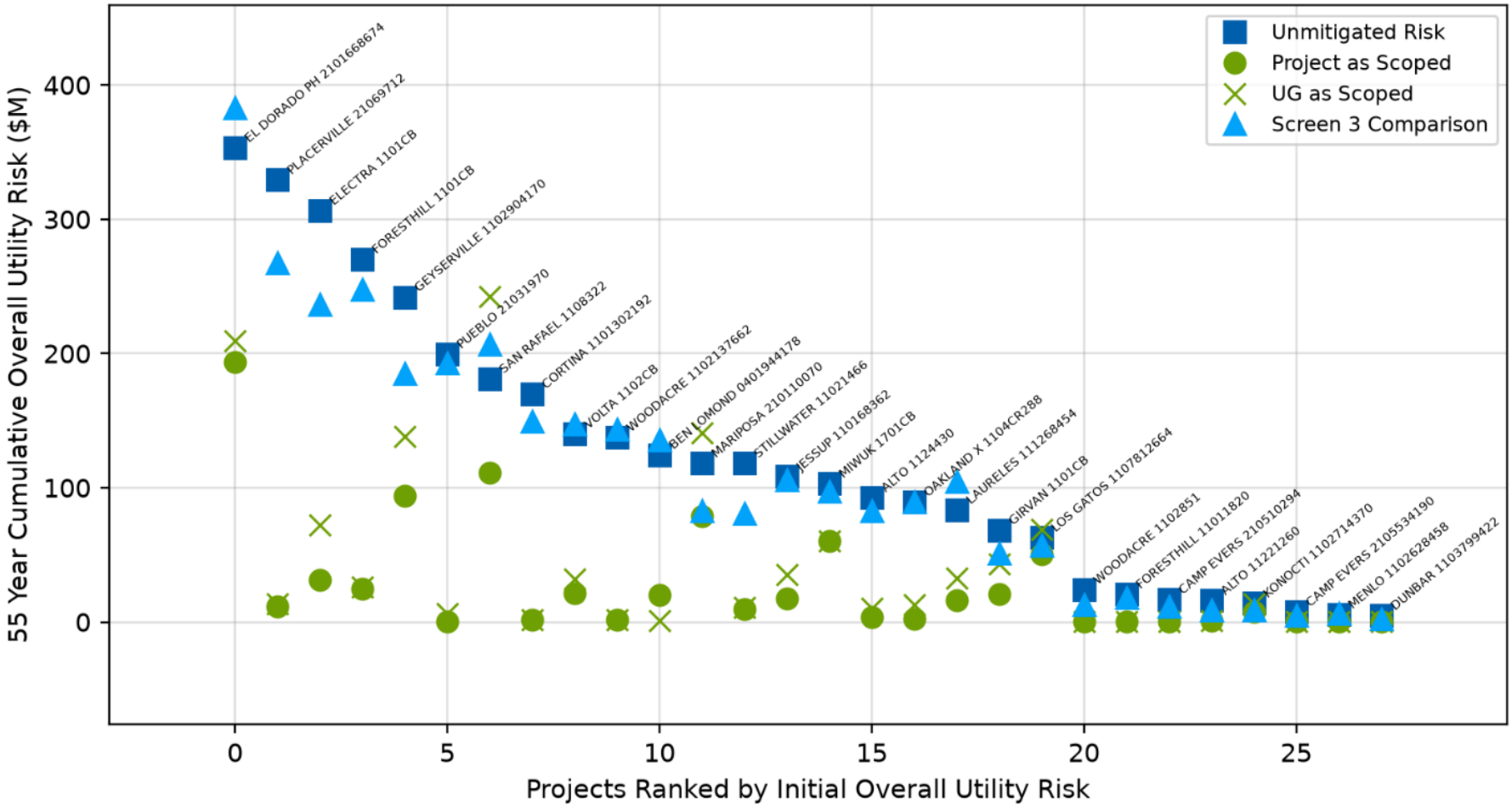
This figure shows the top 50 risky Outage Program Risk circuit segments by their dollarized risk per year.

Chapter 6. Alternative Comparisons and Standards

These plots are intended to highlight the riskiest circuits across 55 years of cumulative overall risk. These plots also highlight the effects of certain mitigations on each circuit segment, comparing the undergrounding portion vs. portions that are alternative mitigations vs. the overall risk reduction of the final project as scoped.

6.1 Cumulative Overall Utility Risk Rank

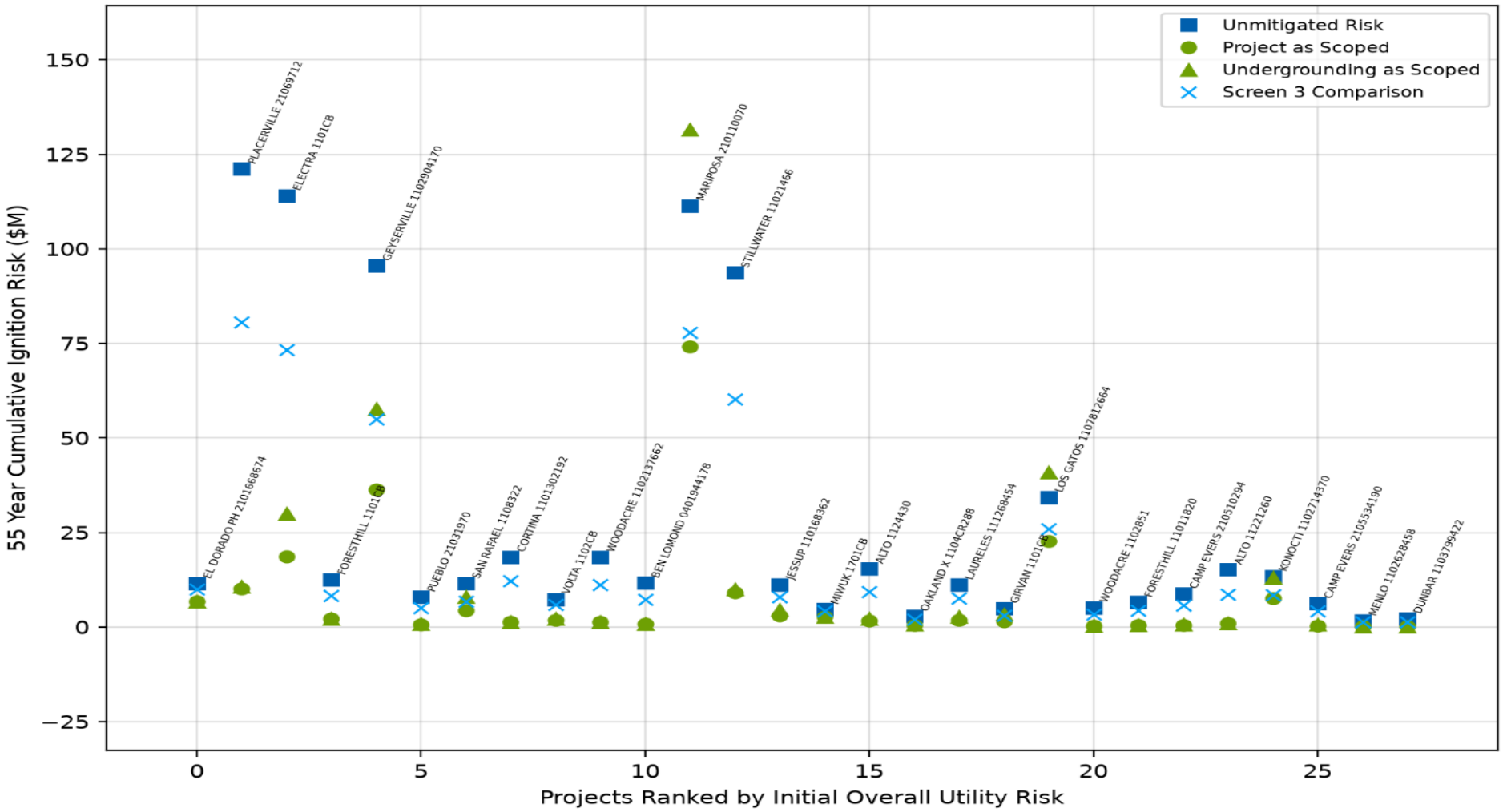
Figure 6.1: Cumulative Overall Utility Risk Rank



The cumulative overall risk over a 55-year period for each confirmed project, sorted by each project's overall utility risk. Here, baseline risk is estimated with constant accumulation from Table 8 numbers. UG as scoped X points overlapping the project as scoped points indicate the entire project as scoped is made up of undergrounding.

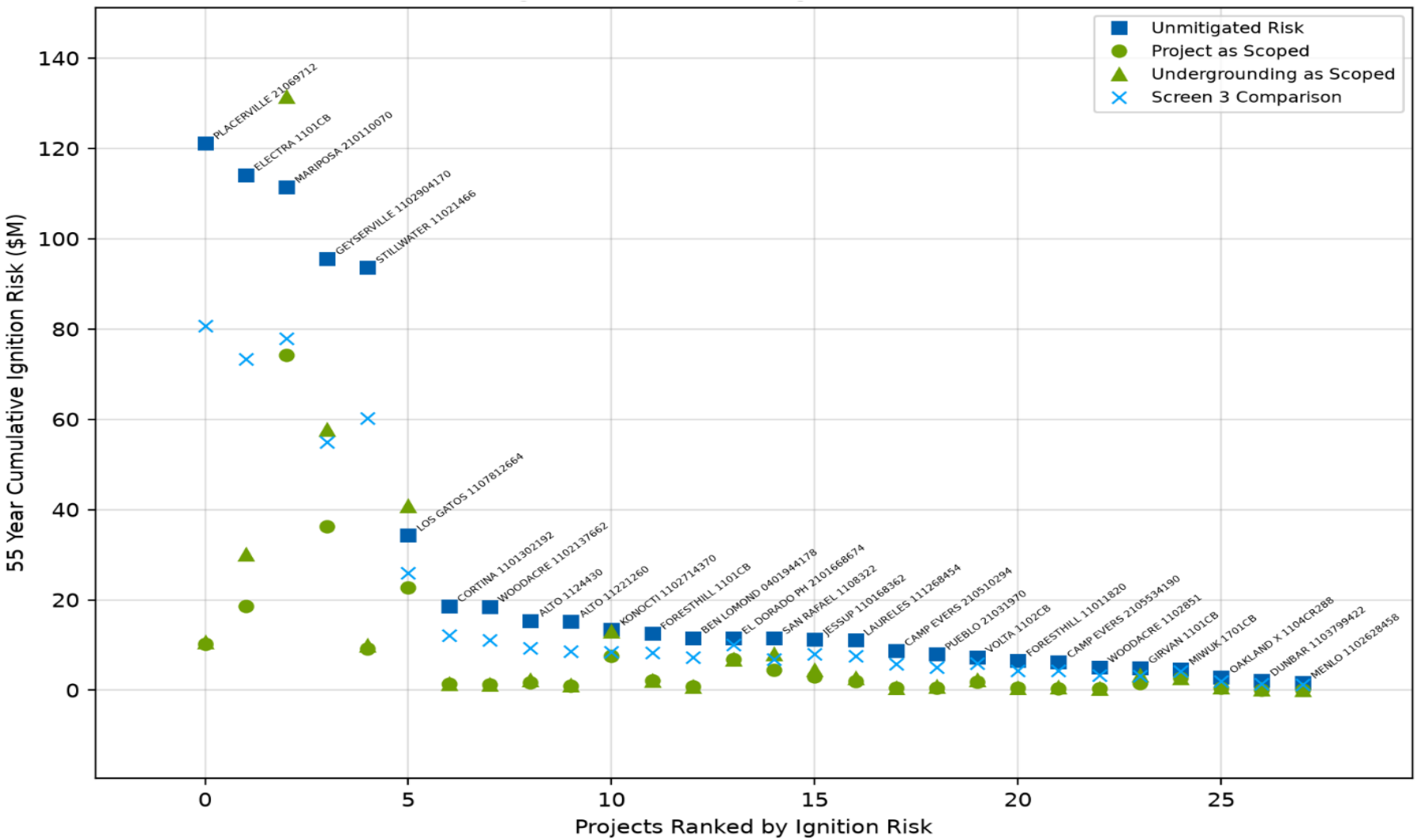
6.2 Cumulative Ignition Risk Rank

Figure 6.2: Cumulative Ignition Risk Rank



The cumulative Ignition Risk over a 55-year period for each Confirmed Project, sorted by each project's Overall Utility Risk.

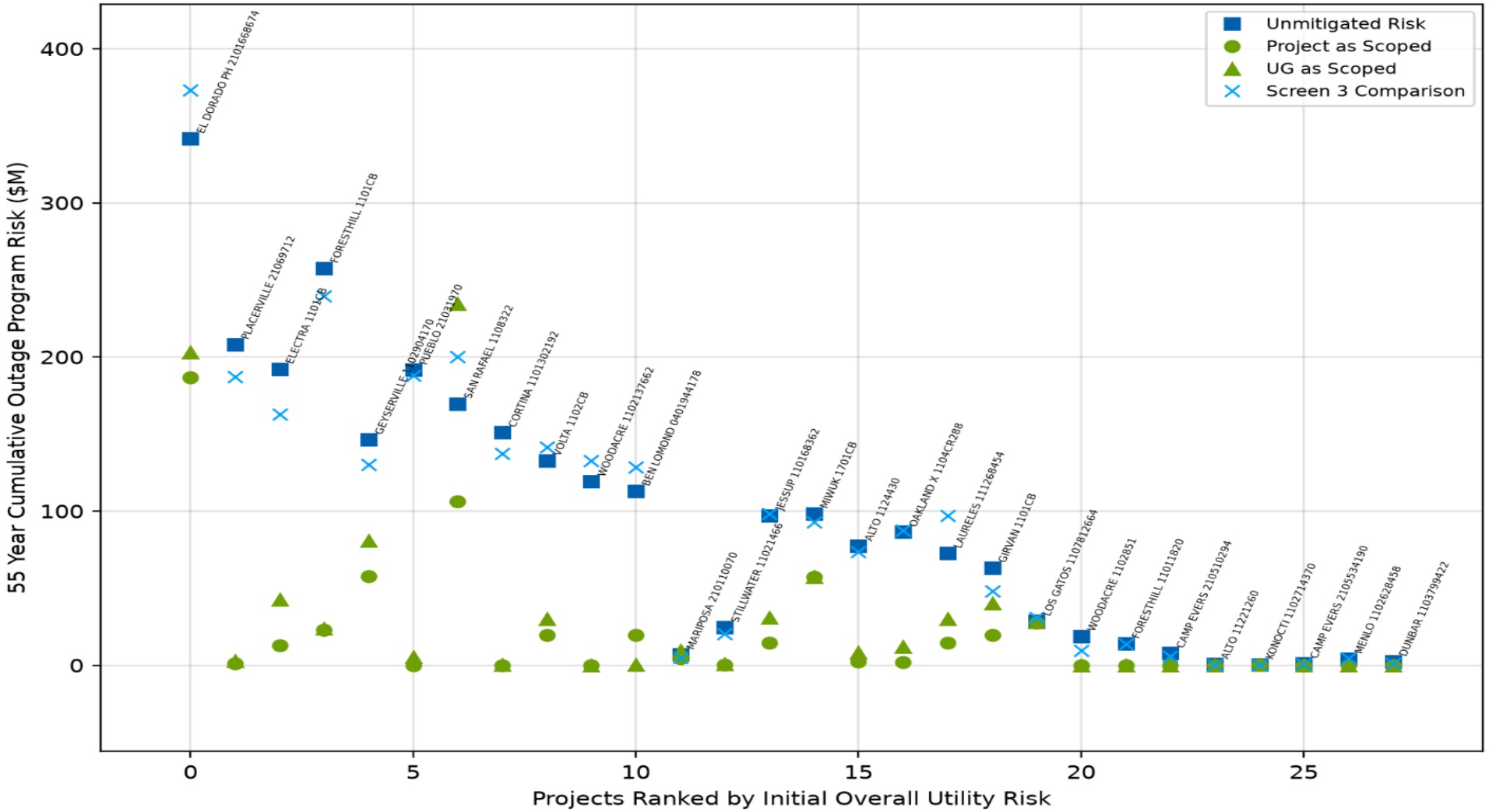
Figure 6.3: Cumulative Ignition Risk Rank



The cumulative Ignition Risk over a 55-year period for each Confirmed Project, sorted by each project's Ignition Risk. That is, same numbers as Figure 6.2, sorted differently.

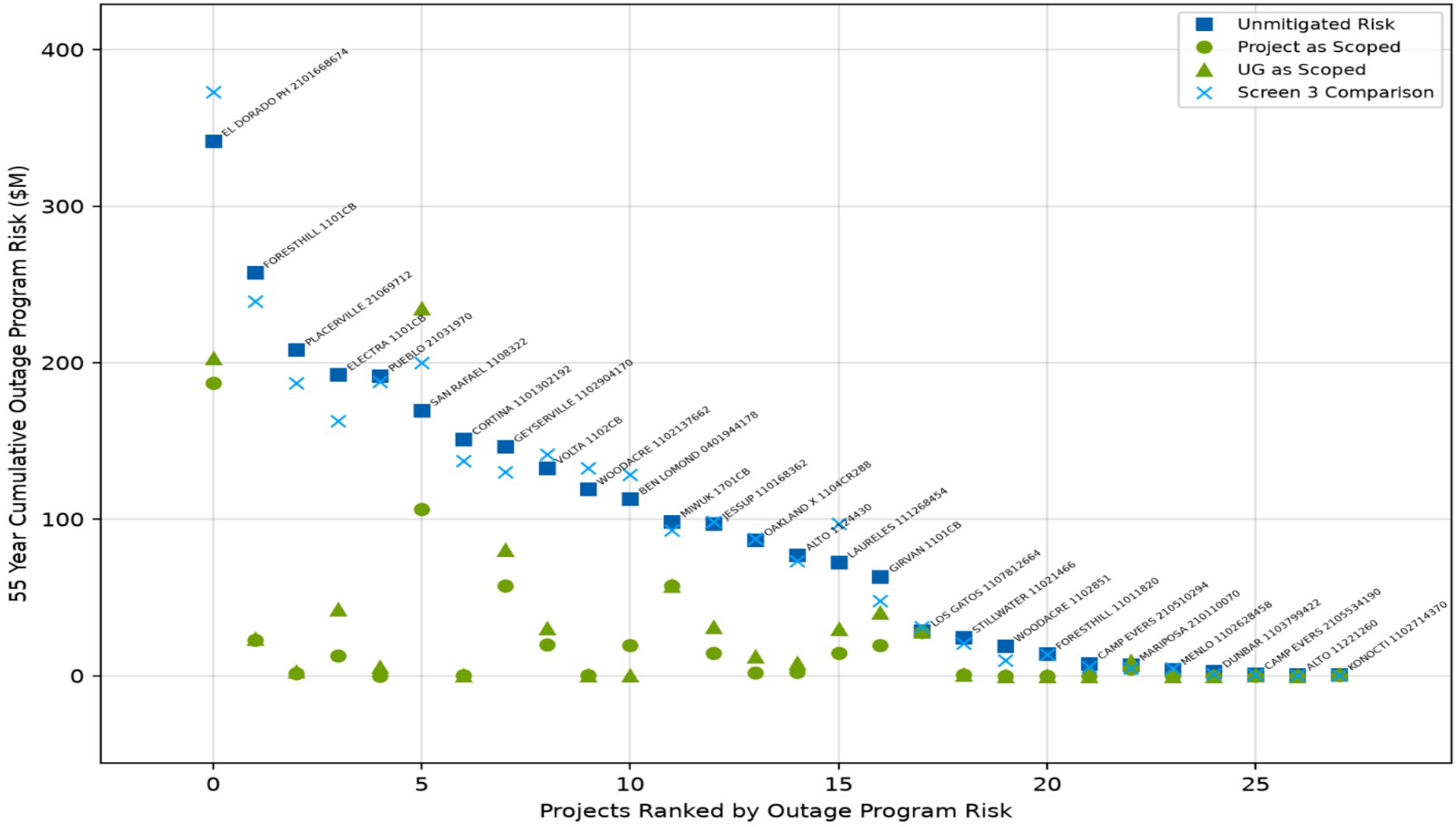
6.3 Cumulative Outage Program Risk Rank

Figure 6.4: Cumulative Outage Program Risk Rank



The cumulative Outage Program Risk over a 55-year period for each Confirmed Project, sorted by each project's Overall Utility Risk.

Figure 6.5: Cumulative Outage Program Risk Rank



The cumulative Outage Program Risk over a 55-year period for each Confirmed Project, sorted by each project's Outage Program Risk. That is, same numbers as Figure 6.4, sorted differently.

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A California Natural Resources Agency
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715 P Street, 15th Floor
Sacramento, CA 95814
916.902.6000