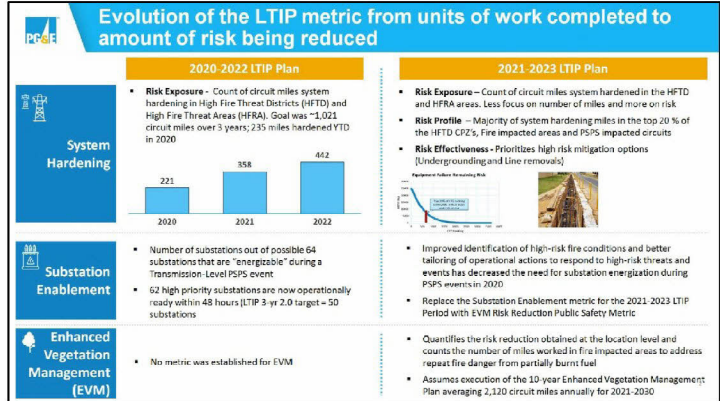


**Public Safety
Long Term Incentive Plan (LTIP)
Target Setting**

November 15, 2020



Together, Building
a Better California



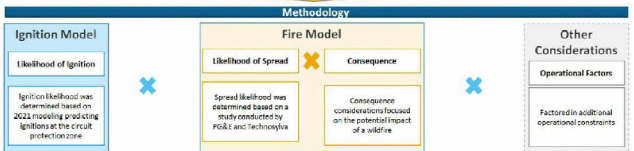
Risk Model and Risk Quantification

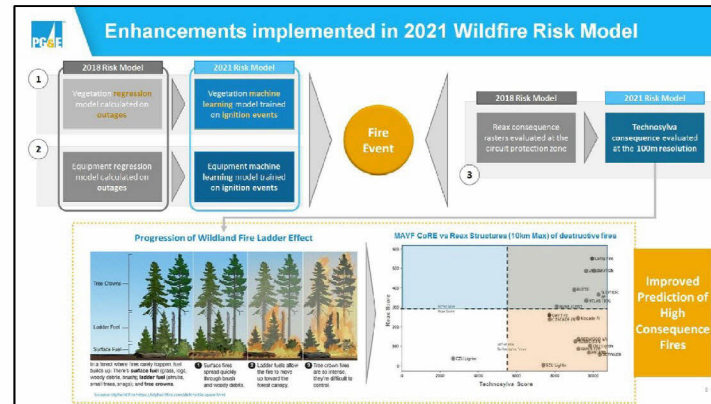
Wildfire Risk Models calculates risk units in CPUC framework

- | LoRE | CoRE |
|---|--|
| <ul style="list-style-type: none"> The likelihood of a risk event (LoRE) is the relative frequency of a specific risk event occurring. In the case of wildfire risk, this is the relative likelihood of a ignition occurring. | <ul style="list-style-type: none"> The consequence of a risk event (CoRE) is the average impact of the risk should it materialize across key metrics (Safety, Reliability, Financial). In the case of wildfire risk, consequence contains serious injuries, fatalities, property damage, and impacts to reliability. |

Risk = LoRE X CoRE

- Risk is the product of the likelihood and consequence of a risk event.
- This method produces an expected value of impact across the consequence metrics, and when combined results in a multi-attribute score that can inform risk based decision making.

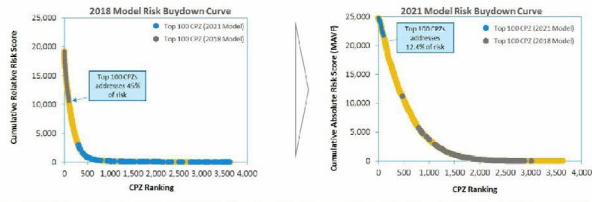






Risk models provide risk buydown curves to guide workplan

The risk buydown curve shows the amount of risk that can be addressed with every subsequent mile or CPZ that is mitigated. This view shows the relative magnitude of potential projects and can compare impacts of programs with varied effectiveness. The visualization helps to highlight the consolidation of risk by mile as you move down the prioritization list.



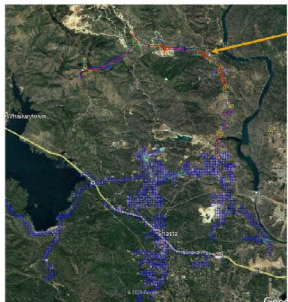
System Hardening Risk Buydown curves highlight the significant shift of where the top 100 CPZ's are between the two models

Project Example

1/1/2024



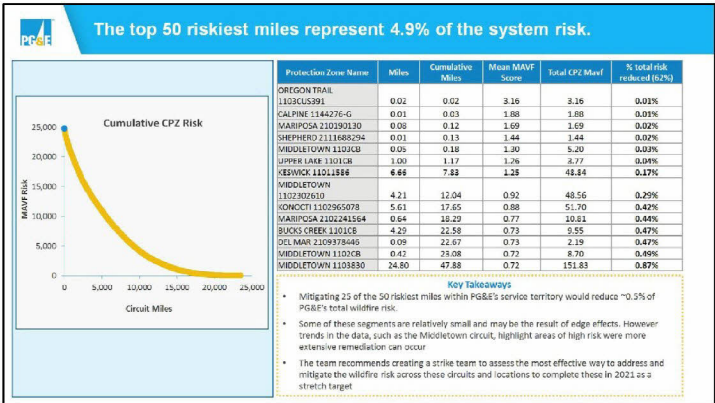
Project Example: Keswick 11011586 Circuit Protection Zone

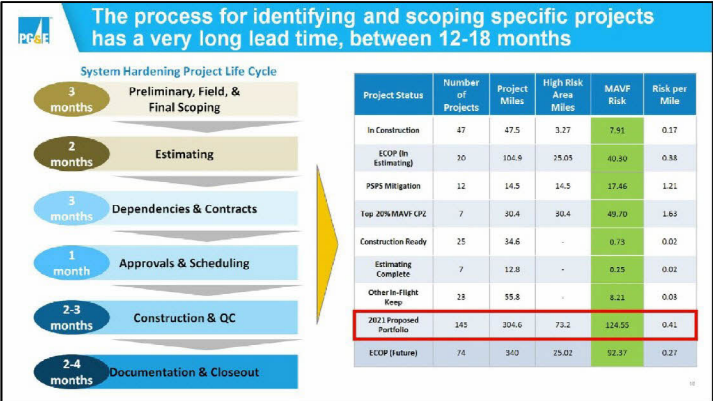


Keswick 11011586 Circuit Protection Zone

- 5.6 Miles in total, the 100m X 100m squares are the absolute risk values for each section of that protection zone
- The total protection zone absolute risk score is 48.84 risk units (sum of all the 100m squares along the circuit)
- Average risk score of all the squares gives the CPZ mean risk score of 1.25

Keswick (6.6 Miles)	No System Hardening	Overhead Hardening	Under-grounding	50-50 OH / UG
Total CPZ Risk Score After Mitigation	48.84	30.28	48.35	39.22
Total CPZ Residual Risk Value	48.84	18.56	0.49	9.52
Duressell Miles	6.6	6.6	6.6	6.6
OH System Hardening (Mile)	\$ -			
UG System Hardening (Mile)	\$ -			
Total Cost	\$ -			
Simple Risk Spend Efficiency	n/a	2.8675	1.6650	1.9857
Keswick Net Present Value (NPV) @ 7% discount rate		100% Overhead Hardening	100% Under-grounding	
\$ NPV per unit of risk				





Target Setting

11/20/2024

PG&E Approach to the 2021 work plan attempts to balance with maximized risk reduction

Conditions

- Risk Exposure Expanded**
 - All 25,000 HFD miles were evaluated within the 2021 Risk Model
- Risk Proportion Focused**
 - Majority of system hardening miles in the top 20 % of the HFD CPZs; remaining in Fire impacted and PPS impacted CPZ's (Fire rebuild)
 - 2021 is a transition year given risk model enhancements and evolution
- Risk Effectiveness Enabled**
 - Prioritizes high risk mitigation options (Undergrounding and Line removals)
 - 5%, 10% and 15% of Undergrounding work in the System Hardening project portfolio in 2021, 2022 and 2023, respectively

2021 System Hardening Workplan

2021 System Hardening Workplan

Objective: Maximize the amount of system hardening that can be completed before wildfire season 2022. Additional resources not used to complete this plan will be assigned to address the backlog of projects in the HFD. The workplan will focus on:

Included in Scope:

- CPZ currently in construction
- CPZ in the top 20% of highest risk CPZs
- SCOP and PPS Projects

Additional Review (Complete partial CPZs)

- Construction ready projects
- Addressing complete projects awaiting dependencies

Summary Metrics:

Highest Risk Area Miles: 73.2	Miles Addressed: 205.4	MAVR Reduced: 124,335 (63%)
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Alternatives

Alternative 1	Alternative 2
<p>Focus on projects on the highest risk area miles, and utilize excess resources to complete HFD SC tags and other non-hardening capital work not in scope.</p> <p>Included in Scope:</p> <ul style="list-style-type: none"> Widest range of highest risk area miles. 	<p>Maximize the amount of system hardening work that can be completed by carrying over all construction ready work for 2022.</p> <p>Included in Scope:</p> <ul style="list-style-type: none"> All current construction ready 2021 system hardening projects
<p>Highest Risk Area Miles: 73.2</p> <p>Miles Addressed: 73.2</p> <p>Risk Reduced: 358,700 (4%)</p>	<p>Highest Risk Area Miles: 7.2</p> <p>Miles Addressed: 254.16</p> <p>Risk Reduced: 80,270 (1%)</p>

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The LTIP targets for system hardening are set based on 2021 risk area miles and program funding assumptions

- Program Funding**
- Forecast of [redacted] Wildfire Mitigation capital spend (bulk of which is System Hardening) in 2021 consistent with the Settlement for the 2020-2022 GRC. 2022 forecast escalates 2021 by 15% and 2023 forecast escalates 2021 by 30%.
- Unit Costs**
- Assume [redacted] per circuit miles of Overhead Sit work and [redacted] for Underground work.
- Program Duration**
- Execution of the 13-year plan focusing on top 20% CPZs by 2032.

System Hardening LTIP Targets

	LTIP 0.5	LTIP 1.0	LTIP 2.0
2021	305	320	350
2022	350	368	403
2023	386	416	455
2021-2023	1,051	1,103	1,209

Targets are miles of system hardening work for specific risk-prioritized work.

The total mileage of the proposed 2023 Project Portfolio was set as the threshold goal (LTIP 0.5) for 2021, 2022 and 2023. LTIP 0.5 goals reflect escalation of program funding level. The target and stretch goals (LTIP 1.0, 2.0) were set as 5% and 15% higher, respectively.

