| I. DETAILS |  |  |
| :---: | :---: | :---: |
| 1. | Metric name | System Hardening Effectiveness |
| 2. | Risk impacted | Wildfire Risk |
| 3. | Definition | Count of circuit miles worked under System Hardening program within high-fire risk areas to reduce wildfire risk through either (1) rebuild of overhead circuitry to current hardening design standards (2) undergrounding (3) removal of overhead circuitry (line removal) (4) enablement for remote grid. This work is performed in HFTD Tiers 2/3 and Tier 1 HFRA. <br> The metric includes Fire Rebuild work and any work associated with Public Safety Power Shutoff (PSPS) that is consistent with the 4 above mitigations. <br> The following conditions must be met or LTIP score for this metric will be 0 : <br> Condition 1: $80 \%{ }^{1}$ of system hardening miles must be high-risk miles over the threeyear reporting period. High-risk risk areas are defined as: <br> 1. Top $20 \%^{2}$ of approved risk model buydown curve <br> 2. Fire rebuild miles <br> 3. PSPS mitigation miles <br> Condition 2: At least 10\% of the completed System Hardening project portfolio over the three-year reporting period must be Undergrounding or Line Removal work ${ }^{3}$. <br> The risk model, risk scores, mitigation effectiveness weights, list of risk-prioritized System Hardening projects and program funding level are approved and governed by the Wildfire Risk Governance forum. <br> The System Hardening projects are recorded as complete and included in metric calculations when individual spans/sections for each project are constructed and inspected for quality control and quality assurance against the hardening design standard and passed as "fire safe". <br> ${ }^{1}$ Basis of the $80 \%$ is to allow for operational execution considerations including permitting, weather related access, and mob/demob efficiencies <br> ${ }^{2}$ Basis of the top $20 \%$ correlates to $\sim 70 \%$ of the risk on the risk buydown curve <br> ${ }^{3}$ Risk reduction effectiveness for Overhead Hardening is estimated at $62 \%$ and Undergrounding or Line Removal is estimated at 99\% |
| 4. | Units and calculation | Units are number of circuit miles complete, rounded to whole miles for LTIP score calculation. LTIP score is determined by number of actual circuit miles complete compared to LTIP 0.5, 1.0, and 2.0 targets for planned circuit miles |
| 5. | Measurement system / reporting process | Work execution plan reporting from SAP and iAuditor provided by Electric Ops Major Programs / Project Delivery (MPP) |
| 6. | Exclusions and exceptions | - Projects completed prior to 01/01/2021 or after 12/31/2023 <br> - Butte County Rebuild miles <br> - System Hardening work performed outside of HFTD / HFRA |
| 7. | Benchmarking (External | No external benchmarking is available. 2019 and 2020 performance is used as a baseline. |

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| benchmarks or <br> internal <br> performance) |  |  |
| :--- | :--- | :--- |
| 8. | Related KPIs (e.g. <br> leading indicators) | $\mathrm{N} / \mathrm{A}$ |


| II. HISTORICAL AND PROJECTED PERFORMANCE |  |  |  |  |  |  |
| :---: | ---: | ---: | :---: | :---: | :---: | :---: |
|  | Actual | Target/Forecast | $1^{\text {st }}$ Quartile | $2^{\text {nd }}$ Quartile | $3^{\text {rd }}$ Quartile |  |
| 2017 | N/A |  |  |  |  |  |
| 2018 | N/A |  |  |  |  |  |
| 2019 | 171 |  |  |  |  |  |
| 2020 | $350^{1}$ |  |  |  |  |  |
| 2021 |  | 199 |  |  |  |  |
| 2022 |  | 464 |  |  |  |  |
| 2023 |  | 564 |  |  |  |  |

${ }^{1}$ EOY forecast as of December 12, 2020. Includes Fire Rebuild circuit miles.

| III. TARGETS |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Targets | Score | 2021 | 2022 | 2023 | 2021-2023 |
|  | 0.5 | 180 | 423 |  |  |
|  | 1.0 | 199 | 464 |  |  |
|  | 2.0 | 208 | 485 |  |  |
| 2. Target type | Higher is better <br> Range: Lower is better |  |  |  |  |
| 3. Target-setting methodology | - Target is set at $\sim 10 \%$ higher than Threshold <br> - Threshold: <br> - The 2021 Threshold is set in alignment with the approved 2021 System Hardening project portfolio <br> - The 2022 and 2023 Thresholds are consistent with the Wildfire Mitigation Capital Funding forecast and the execution of the 13-year plan that focuses on top 20\% circuit protection zones by 2032. <br> - Stretch is set at $\sim 15 \%$ higher than Threshold and considers operational execution risks and limitations |  |  |  |  |
| 4. Definitions of key terms | Term | Definition |  |  | Source |
|  | HFTD | High Fire Threat District |  |  |  |
|  | HFRA | High Risk Fire Areas |  |  |  |
| 5. Supporting documents | N/A |  |  |  |  |

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