

Staff Proposal for SB 884 Program

SAFETY POLICY DIVISION

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Purpose:

This Staff Proposal, if adopted, will satisfy the Commission's statutory obligation, pursuant to Public Utilities Code Section 8388.5(a), to establish an expedited utility distribution undergrounding program consistent with Senate Bill No. 884 (SB 884). This Staff Proposal addresses the process and requirements for the Commission's review of any large electrical corporation's 10-year distribution infrastructure undergrounding Plan (as defined below) and its related costs.

Background:

SB 884, enacted September 29, 2022, authorizes only those electrical corporations with 250,000 or more customer accounts (i.e., large electrical corporations) within the state to participate in the expedited program.

To participate in the program, the large electrical corporation must submit a 10-year distribution infrastructure undergrounding plan (hereafter, "Plan"), including, among other requirements, the undergrounding projects that it will construct as part of the Plan, to the Office of Energy Infrastructure Safety (Energy Safety). Energy Safety is required to review and approve or deny the Plan within nine months of submission. Before approving the Plan, Energy Safety may require the large electrical corporation to modify the Plan. Energy Safety may only approve the Plan if it finds that the electrical corporation's Plan will achieve, at the least, both of the following:¹

- 1) Substantially increase reliability by reducing use of public safety power shutoffs, enhanced powerline safety settings, de-energization events, and other outage programs.
- 2) Substantially reduce wildfire risk.

If Energy Safety approves the large electrical corporation's Plan, the large electrical corporation must submit to the Commission, within 60 days of Energy Safety's approval, a copy of the Plan and an application requesting review and conditional approval of the plan's costs (hereafter, "Application"). The Commission must approve or deny the Application within nine months of submission. The Commission may, however, require the large electrical corporation to modify or modify and resubmit the Application prior to approval. An order to modify the Application would not restart the Commission's nine-month timeline for approving or denying the Application. In contrast, an order to resubmit would result in the nine-month timeline restarting upon resubmittal.

If the Plan is approved by Energy Safety and the Application is conditionally approved by the Commission, the large electrical corporation must file progress reports with the Commission and Energy Safety every six months, include ongoing work plans and progress in its annual wildfire mitigation plan submissions, hire an independent monitor (selected by Energy Safety) to review and assess its compliance with the Plan, apply for all available federal, state, and other non-ratepayer moneys throughout the duration of the approved Plan, and use those non-ratepayer moneys to reduce the Plan's costs to its ratepayers.

The independent monitor must annually produce and submit a report to Energy Safety no later than December 1 over the course of the Plan.² The independent monitor's report will identify any failure, delays, or shortcomings in the large electrical corporation's compliance with the Plan and provide recommendations for improvements. After consideration of the independent monitor's report and whether the large electrical corporation has cured the deficiencies identified therein, Energy Safety may recommend penalties to the Commission. The Commission may assess penalties on a large electrical corporation that

¹ Energy Safety plans to separately issue guidelines detailing the requirements for submission and review of undergrounding Plans.

² Pursuant to Public Utilities Code, Section 8388.5(h), Energy Safety is required to publish these reports on its website.

fails to substantially comply with the Commission decision approving its Plan pursuant to Public Utilities Code, Section 8388.5(i)(2).

Figure 1 below shows an overview of the timelines, events, and responsible parties for implementation of the SB 884 program.

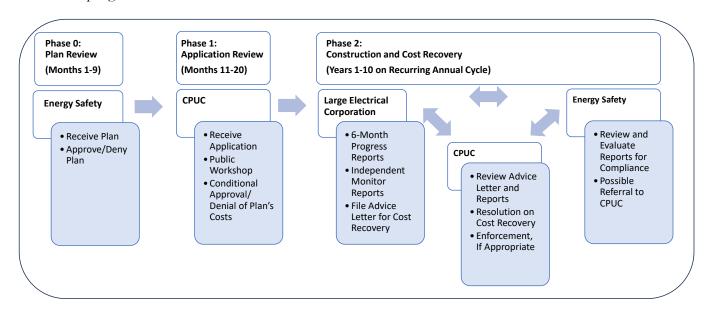


Figure 1: SB 884 Plan, Application, Reporting, and Cost Recovery Timeline

SB 884 Program Process and Requirements:

Staff proposes the following process for review and conditional approval of the Application be executed in two phases:

- 1) Phase 1: Application submission and review for conditional approval.
- 2) Phase 2: Periodic reviews of recorded costs and compliance with conditions.

Phase 1 will commence with the submission of an Application for Commission consideration and conclude with the Commission's disposition of such Application (i.e., conditional approval or denial). If conditionally approved in Phase 1, the Commission's conditional approval of the Application will allow the large electrical corporation to record costs related to execution of the Plan with the presumption that the large electrical corporation may collect those revenues in rates if and only if it satisfies the conditions stipulated in the Commission's conditional approval. The Phase 1 conditional approval process will determine whether all necessary information was provided in the Application, consider whether the Application needs to be modified or modified and resubmitted, consider testimony of parties in a proceeding, whether all or part of the Application's forecasted costs of the Plan should be conditionally approved, and the conditions upon which that approval will be stipulated. The conditions placed on the Commission's Phase 1 approval will consist of the stipulations that the Commission determines are necessary to justify that Plan costs are just and reasonable costs, based on the cost targets and forecasts provided in the Application.

Phase 2 will commence with the submission of a Tier 3 Advice Letter requesting recovery of costs recorded in connection with the execution of any conditionally approved Plan. Phase 2 will conclude with the Commission's disposition of the last of such cost recovery advice letters associated with the Plan. In Phase 2, the Commission will annually, or at such interval determined in the Phase 1 Application proceeding, review recorded costs to determine whether recorded costs were just, reasonable, and satisfied the conditions specified by the Commission in the conditional approval of the Phase 1 Application.

Application Conditional Approval, Denial, or Modification & Resubmittal:

On or before nine months from its filing date, the Commission shall review and conditionally approve or deny the Application. Before conditionally approving or denying the Application, the Commission may require the large electrical corporation to modify or modify and resubmit the Application.³ An order to modify the Application would not restart the Commission's nine-month timeline for approving or denying the Application. In contrast, an order to resubmit would result in the nine-month timeline restarting upon resubmittal.

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³ Public Utilities Code, Section 8388.5(e)(5).

Phase 1 – Application Submission and Review:

This Staff Proposal understands that Plans approved by Energy Safety will have been found to show that implementation of the Plan will substantially increase reliability and substantially reduce wildfire risk, as required in Public Utilities Code, Section 8388.5(d)(2). The Commission's role is to review and conditionally approve costs as presented in the subsequent Application.

Application Submission Requirements:

Applications submitted to the Commission for consideration of conditional approval of Plan costs shall meet all the following requirements.

Submission Deadline:

Applications for Commission review, and conditional approval or denial of the Plan's costs, as such conditional approval is described herein, must be submitted to the Commission within 60 days following Energy Safety's approval of the Plan.

Application Type:

Applications shall be submitted according to the Commission's Rules of Practice and Procedure.⁴

Application Submission:

The Application shall be filed and served with Commission's Docket Office, with a copy to the Commission's Chief Administrative Law Judge, the service list for large electrical corporation's most recent general rate case (GRC), the SB 884 notification list linked here, as updated, SB884@cpuc.ca.gov, and any other service lists, as determined by the Commission and the large electrical corporation, to broadly reach interested parties.

Application Requirements:

For the purposes of this Staff Proposal, all program and project costs reported in the Application shall include the standard costs associated with a system hardening conversion project including, but not limited to, program management, project execution, design, estimating, mapping, construction, internal labor, contracted labor, parts, tools, materials, overhead, and permitting.

The following is a list of required content in Applications submitted pursuant to Public Utilities Code, Section 8388.5(e):

1) The Application shall provide all documentation necessary to evaluate the proposed costs consistent with the Commission's standard Rules of Practice and Procedure.⁵

⁴ Rules of Practice and Procedure: California Code of Regulations Title 20, Division 1, Chapter 1. Article 3, Rule 3.2.

⁵ Rule of Practice and Procedure: California Code of Regulations Title 20, Division 1, Chapter 1. Articles 2-3.

- 2) The Application shall present cost forecasts for each year of the 10-year Application period, consistent with the cost targets presented in the Plan approved by Energy Safety.
- 3) The Application shall clearly identify all undergrounding targets (i.e., miles to underground) and cost targets in the approved Plan that overlap with undergrounding targets and cost forecasts either approved or under consideration in the large electrical corporation's most recent GRC or other cost recovery venues.
 - a) Where undergrounding targets and cost targets in the Application overlap with undergrounding targets and cost forecasts <u>approved</u> in the most recent GRC or other cost recovery venue, such undergrounding targets and costs shall be clearly identified and associated costs will be excluded from consideration in the Application.
 - b) Where undergrounding targets and cost targets in the Application overlap with undergrounding targets and cost forecasts <u>still under consideration</u> in a GRC or other cost recovery venue, the Application shall specify which overlapping targets and costs are under consideration and identify the proceeding or advice letter in which the Commission is considering them. The Application shall propose in which venue the Commission should consider the overlapping costs. Both costs and the corresponding mileage must be paired and presented for consideration in a single venue.
 - c) For undergrounding targets and cost forecasts which were <u>previously disallowed</u> by the Commission, the large electrical corporation shall identify the proceeding or advice letter in which the Commission made such determination, when that determination was made, and explain why a different conclusion is now appropriate.
 - d) The Application shall include a detailed description of the controls the large electrical corporation will implement to ensure that undergrounding costs related to execution of the Plan are not duplicative of any other costs approved by the Commission.
- 4) The Application shall include annual revenue requirements and proposed ratepayer impacts necessary for rate recovery of the Application's forecasted costs.
- 5) The Application shall identify any forecast costs that would be reduced, deferred, or avoided because of implementing the proposed undergrounding plan (such as vegetation management), and the proposed disposition of the savings. The Application shall distinguish between forecast costs already approved by the Commission for recovery, forecast costs for which the Commission previously denied a request for recovery, and forecast costs that have not yet been the subject of a request for recovery. For forecast costs already approved by the Commission for recovery, the Application shall identify any accounts used to track such costs; the amounts in each such account; and the Commission decision(s) authorizing recovery.
- 6) The Application shall include cost targets that, at a minimum, result in feasible and attainable cost reductions as compared to the large electrical corporation's historical undergrounding costs.
 - a) Cost targets shall be provided for each projected year in the 10-year Plan.
 - b) Annual historical undergrounding unit costs shall be provided for the previous 10 years, with separate categories for Rule 20 projects and wildfire mitigation projects, as available.
 - c) Comparisons between the Plan's unit cost targets and historical undergrounding unit costs shall be provided using the average historical wildfire mitigation undergrounding costs for the previous three years (before the Plan's first year). The comparison shall include a

statement of how the targeted cost reductions are feasible and attainable compared to historical costs.

- 7) The Application shall include an explanation of how the cost targets are expected to decline over time due to cost efficiencies and economies of scale.
- 8) The Application shall include a description of a strategy for achieving cost reductions over time per 8388.5(e), which may include factors other than cost efficiencies or economies of scale such as, but not limited to identifying, developing, and deploying new technologies.
- 9) The Application shall present the forecasted average Cost-Benefit Ratio (CBR) across all projects expected to be completed in each of the 10 years of the Application period, broken out by year and for the total Application period. Cost and Benefits must be calculated as defined in Commission Decision (D.)22-12-027⁶ or its successor. The calculated annual and total benefits must relate to the mitigation of overhead line miles including secondary lines and service drops, not miles of undergrounding.⁷
- 10) The Application shall include the forecasted CBRs, broken out by year and for the total Application period, for alternative wildfire mitigation hardening methods considered, in place of undergrounding, including forecasted CBRs for combinations of non-undergrounding hardening mitigation measures. The calculated annual and total benefits must relate to the mitigation of overhead line miles including secondary lines and service drops, not miles of undergrounding.
- 11) The Application shall include a description of any substantial improvements in safety risk and reduction in costs compared to other hardening and risk mitigation measures over the duration of the Plan.
 - a) Substantial improvements in safety risks shall be substantiated using the above required benefits calculations by comparing undergrounding benefits to alternative wildfire mitigation measures, including combinations of alternative measures.
 - b) Reduction in costs shall be substantiated using the same cost calculations as required above by comparing undergrounding costs to alternative wildfire mitigation measures, including combinations of alternative measures.
- 12) For each project included in the approved Plan the large electrical corporation shall provide, at a minimum, all data listed in Appendix 1 in tabular format. This information shall be provided as both a Microsoft Excel file and searchable pdf file to supplement the Application. The data listed in Appendix 1 is preliminary, and will be refined in consultation with Energy Safety, as it develops Plan requirements, to support uniformity where possible.

⁶ CBR is calculated by dividing the dollar value of Mitigation Benefit by the Mitigation cost estimate. See D.22-12-027 Phase II Decision Adopting Modifications, Risk-Based Decision-Making Framework, Appendix A, p. A-3.

⁷ Based on information provided in PG&E's wildfire mitigation plans and current general rate case, the overhead to underground conversion rate is approximately 1.25. This means that it would require PG&E approximately 125 miles of underground circuit miles to convert 100 miles of overhead infrastructure to underground. As such, calculated benefits would relate to the 100 miles of overhead infrastructure undergrounded and not the 125 miles of undergrounding required to do so. The underground conversion rate will vary per large electrical corporation.

⁸ The data requirements in Appendix 1 will be aligned with data submission requirements for the Plan, as developed by Energy Safety.

⁹ See Rules of Practice and Procedure: California Code of Regulations Title 20, Division 1, Chapter 1. Article 1, Rule 1.3(b) for complete submission requirements of pdf files.

- 13) For each project included in the approved Plan, the large electrical corporation shall provide GIS data for all project boundaries in a Geodatabases or other suitable format.¹⁰
- 14) The Application shall include a list of all non-ratepayer moneys (third-party funding) the large electrical corporation has applied for to minimize the Plan's costs on ratepayers. At a minimum, for each potential source of third-party funding, the list shall include:
 - a) The source of third-party funding;
 - b) The date when third-party funds were requested;
 - c) The amount of funding requested;
 - d) The status of the request;
 - e) Next steps, including timelines, for processing of the funding request; and
 - f) The amount of funding granted/authorized (if any).
- 15) The Application shall include a description of how any net tax benefits associated with the third-party funding will be disposed of to the benefit of ratepayers.
- 16) The Application shall include a statement affirming costs, tax benefits, and tax liabilities associated with federal funding sources used to fund projects included in the Plan are being tracked consistent with Resolution E-5254.¹¹
- 17) The Application shall include an attestation that the utility will continue to search for and apply to third party funding to reduce the cost of the Plan to ratepayers throughout the duration of the Plan.
- 18) A copy of the Plan approved by Energy Safety.

Public Workshop & Comments:

The Commission will facilitate a public workshop for presentation of the Application and take public comment for at least 30 days per Public Utilities Code, Section 8388.5(e)(4). Formal comments from the workshop will be solicited by a ruling in the proceeding, such as a workshop report provided by a committee of parties who participated in the workshop.

Conditions for Approval:

Public Utilities Code, Section 8388.5(e)(1) specifies that an Application may request "conditional approval of the plan's costs..." The Commission establishes the following conditions for such Application to protect ratepayers from unexpected and inefficient cost overruns:

- 1) Total annual costs must not exceed a cap based on the approved cost target for that year plus a 10 percent contingency allowance for unexpected circumstances.
- 2) Third-party funding, if any, shall be deducted from the maximum conditionally approved forecasted costs, so that ratepayers receive the benefit. The third-party funding must be applied to reduce the cost cap.
- 3) The average recorded CBR for all projects completed in a year must equal or exceed the approved average target CBR for that year.

¹⁰ Further details on GIS data submission requirements are expected to be issued by Energy Safety in the establishment of Plan guidelines. This requirement for Application submission details will align with such GIS data requirements established by Energy Safety.

¹¹ Resolution E-5254 is available on the Commission's website at: https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M506/K016/506016078.PDF.

- 4) If the large electrical corporation changes its risk model during the 10-year period and chooses to change the list of remaining projects, the average CBR of the updated project list must be maintained at equal to or better than the approved CBR. If not, recovery will not be allowed for as many projects as necessary to bring the recorded CBR average down to the approved target.
- 5) Average unit cost per mile must not exceed the approved target for that year plus a 10 percent contingency. Unit costs must be compared to historical undergrounding costs from the three years prior to the start of the Application period. This condition will inform whether the cost targets resulted in feasible and attainable cost reductions as required in Public Utilities Code, Section 8388.5(e)(6). The unit costs are per mile of undergrounding performed, rather than per mile of overhead replaced, to focus on reduction of construction costs.
- 6) Any further reasonable conditions supported by the record of the proceeding and adopted by the Commission.

Phase 2 – Review of Recorded Costs for Rate Recovery:

The elements of Recorded Costs must be consistent with the elements included in the costs presented in the Application, defined as the standard costs associated with a system hardening conversion project including but not limited to program management, project execution, design, estimating, mapping, construction, internal labor, contracted labor, parts, tools, materials, overhead, and permitting.

Following the Commission's conditional approval of an Application, large electrical corporations are required to file progress reports every six months and a third-party independent monitor is required to produce an annual compliance report by December 1. Public Utilities Code, Section 8388.5(e)(6) states in part that, "[t]he Commission shall... authorize recovery of *recorded costs* that are determined to be just and reasonable." [Emphasis added]

Phase 2 of the program will be initiated by a large electrical corporation filing a Tier 3 Advice Letter seeking recovery of recorded costs, to be disposed of by Commission Resolution. Evaluation of the advice letters will rely on the biannual progress reports submitted by the large electrical corporation, the annual compliance report submitted by the independent monitor, relevant information in annual wildfire mitigation plan updates, and stakeholder input to conduct a periodic review of recorded costs and determine whether conditions stipulated in the Commission's conditional approval of the Application (based on forecasted costs) are met when evaluated using recorded costs. Phase 2 may extend over a series of periodic Advice Letter filings, as needed, to support cost recovery over the 10-year program period. The review period will be determined in the Commission's decision on the Application.

The Advice Letter must include the following data presented in Table 1 for the requested recovery period¹³. The Project Data that supports the program recorded cost values shall be provided in tabular format in a sortable Excel spreadsheet.

Table 1: Conditionally Approved Target and Actual Recorded Cost Data

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¹² See Public Utilities Code, Sections 8388.5(f)(1) and 8388.5(f)(3).

¹³ The review period under the most recent Advice Letter filing.

Conditionally Approved Targets for the Recovery Period	Actual Recorded Costs in the Recovery Period
Program Cost	Program Cost
Program CBR	Program CBR
Program Unit Cost	Program Unit Cost
	Project Data for the Recorded Projects

Progress Reports:

Public Utilities Code, Section 8388.5(f)(1) requires large electrical corporations with approved Plans and conditionally approved Applications to file progress reports every six months with both Energy Safety and the Commission. Because the progress reports are filed with multiple agencies and at the same time, Staff propose that Energy Safety and the Commission collaborate to develop a singular set of requirements for these reports. Aligning the requirements for these progress reports will eliminate any unnecessary duplication of effort and optimize efficiency of available resources. However, it is possible that each agency may require distinct information in the progress report which may not be of discrete interest to the other. Staff understand that Energy Safety plans to detail its requirements in a forthcoming set of guidelines. Accordingly, without affecting the required progress report elements specified by Energy Safety, Staff propose that the 6-month progress reports shall include, but are not limited to, the following:¹⁴

- 1) Total recorded costs to date;
- 2) Third-party funds received;
 - a) Explanation of how third-party funding was used to reduce fiscal burden on ratepayers.
- 3) Average recorded CBR for completed projects;
- 4) Average recorded unit cost per mile of undergrounding for completed projects;
- 5) Miles of overhead replaced by undergrounding;
- 6) Miles of undergrounding completed;
- 7) GIS data showing location and status of each project (in Geodatabases or other suitable format);¹⁵ and
- 8) An updated list of all third-party funding the large electrical corporation has applied for, as specified in Application Requirements 14-16.
- 9) Total and average avoided costs and workpapers showing calculation of avoided costs.

Wildfire Mitigation Plan Integration:

Public Utilities Code, Section 8388.5(f)(2) requires large electrical corporations to include ongoing work plans and progress relating to their undergrounding plans in annual wildfire mitigation plan filings. Further

¹⁴ Staff reserve the right to amend the below listed progress report requirements following consultation and coordination with Energy Safety.

¹⁵ Data requirements to be aligned with those specified in Energy Safety guidelines.

guidance on incorporating this information into annual wildfire mitigation plan filings will be provided by Energy Safety.

Compliance Reports:

Public Utilities Code, Section 8388.5(f)(3) requires a large electrical corporation with an approved Plan and conditionally approved Application to hire an independent monitor selected by Energy Safety. The independent monitor must assess whether the large electrical corporation's progress on undergrounding work is consistent with the objectives identified in its approved Plan. ¹⁶ For each year the Plan is in effect, the independent monitor must annually produce a compliance report detailing its assessment by December 1. ¹⁷ The independent monitor's compliance report must also specify any failure, delays, or shortcomings of the large electrical corporation and provide recommendations for improvements to accomplish the objectives set forth in the approved Plan. ¹⁸

Periodic Reviews for Authorization of Rate Recovery:

The Application seeking Commission review and conditional approval focuses on the Plan's costs. All the costs in the Plan are reported as targets (i.e., cost forecasts). ¹⁹ In addition, other metrics that are included in the conditions for Application approval also rely on these cost targets for calculation (i.e., CBRs are expected to be calculated using cost targets). However, Public Utilities Code, Section 8388.5(e)(6) clearly states that authorization of rate recovery is related to recorded costs that are determined to be just and reasonable. Given that recorded costs are not known until after the undergrounding work approved in the Plan is implemented, periodic reviews of those recorded costs are required.

Because the statute requires an Application seeking conditional approval of cost targets in the Plan, the determination of just and reasonable costs should include determination that the recorded costs have met the conditions imposed by a Commission decision that conditionally approves the Application. The goal of these periodic reviews is to determine whether the conditions placed on the Commission's approval of the Application, based on forecasted cost targets, have been satisfied when evaluated using the recorded costs. Recorded costs will be tracked in a memorandum account or similar means as determined in the Commission's decision on the Application. The reviews will be conducted on an annual basis, or as determined in the Commission's decision on the Application. The review process will be initiated by the utility filing a Tier 3 Advice Letter, subject to disposition by Resolution, requesting that the Commission find that the conditions under which cost recovery was approved have been met.

Consequences for Failure to Satisfy Conditions of Approval

Earlier in this proposal, Staff outline a set of requirements for an Application seeking conditional approval of Plan costs. Detailed below are the consequences related to a large electrical corporation's failure to satisfy

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¹⁶ Public Utilities Code, Section 8388.5(g)(1).

¹⁷ Public Utilities Code, Section 8388.5(g)(3).

¹⁸ Public Utilities Code, Section 8388.5(g)(1).

¹⁹ See Public Utilities Code, Section 8388.5(c).

those conditions for approval upon the conclusion of the periodic reviews for authorization of rate recovery.

- 1) COST CAP. Recorded costs above the predetermined cap placed on cost targets in the conditionally approved Application, adjusted for third-party funds received, will not be authorized for recovery.
- 2) THIRD-PARTY FUNDING. If non-ratepayer, third-party funding has not been deducted from the approved cost target, that portion of the costs will not be authorized for recovery.
- 3) COST BENEFIT RATIO. Cost recovery will be denied for as many projects as necessary to bring the recorded CBR average up to the approved target.
- 4) RISK MODEL CHANGE. If the large electrical corporation changes its risk model during the 10-year period and chooses to change the list of remaining projects, ²⁰ the average CBR of the updated project list must be maintained at equal to or better than the approved CBR. Cost recovery will be denied for as many projects as necessary to bring the recorded CBR average up to the approved target.
- 5) UNIT COSTS. Cost recovery will be denied for as many projects as necessary to bring the recorded unit cost average down to the approved target.

Penalties:

Pursuant to Public Utilities Code, Section 8388.5(h)(2), the Commission may assess penalties on a large electrical corporation that fails to substantially comply with a Commission decision approving its Plan.

²⁰ As used in this context, "remaining projects" mean those projects which were included in the 10-year undergrounding Plan, but the large electrical corporation has not yet expended meaningful resources to execute.

Appendix 1: SB 884 Project List Data Requirements

Field Name	Field Description	
Order	Unique Project Order Number.	
Category	Work Category Type. Possible values: Base System Hardening Community Rebuild Fire Rebuild Targeted UG Other, see comment	
Category Comment	Category type not listed in the options above. This field is required if Category is "Other, see comment".	
Project Identification Code	A unique Internal Project Identification code associated with the project and consistent with codes used in GRC and WMP filings (e.g., Maintenance Activity Type Code, Business Planning Element, etc.).	
Status	 Scoping: Identifying the proposed route of undergrounding the electric distribution lines, which includes gathering base map data (i.e., Light Detection and Ranging (LiDAR) and survey data of the expected route) and identifying any long lead time dependencies (i.e., land acquisitions, environmental sensitivities and permits). Scoping includes breaking out planned circuit segments into smaller, more manageable projects. Scoping is the first step to providing visibility to the construction feasibility and possible execution timing. Designing/Estimating: Designing the specific project to determine trench location, connection points, equipment details, materials needed, and related details, such as circuitry and pull boxes. The design also provides information about the land rights needed and produces the drawings that are submitted for permits. The project cost, including expected labor and materials, is calculated at this stage. Permitting/Dependency: During this stage the large 	

Field Name	Field Description
	electrical corporation may need to obtain land rights, environmental permits, construction contracts, encroachment permits from local counties, state and/or federal agencies, order long-lead materials, finalize construction cost estimates, and determine the construction schedule. The two longest lead dependencies often include obtaining land rights and environmental permits. • Ready for Construction: Undergrounding project is ready for construction. • Construction: Executing the undergrounding takes place in two phases: (1) civil construction and (2) electric construction. Project schedules may be significantly impacted during civil construction due to unanticipated weather, discovery of hard rock, and/or detection of unmarked existing utility infrastructure. Once civil construction is complete with conduit and boxes installed, then electric construction resources pull the cable through the conduit, splice segments together and re-connect the customers to the new underground system. Customer input regarding the timing of re-connection, material availability, weather, and other risks can impact the electric construction schedule as well.
Division	Division of the service territory in which the project will take place.
Region	Region of the service territory in which the project will take place.
City	The city in which the project will take place.
County	The county in which the project will take place.
Applicable Risk Model	Name and Version of Project Risk Model used to calculate Cost-Benefit Ratio.
Circuit Protection Zone(s) or Isolated Circuit Segment(s)	All Circuit Protection Zone(s) ²¹ or Isolatable Circuit Segment(s) included in the project scope.
Project Risk Rank ²²	Results of the applicable risk model where Projects are

²¹ A Circuit Protection Zone is a segment of distribution circuit between two protection devices.

²² This information is optional pending whether the large electrical corporation has the necessary data.

Field Name	Field Description
	ranked on a 1 to N basis, where 1 is the highest risk Project, and N is the lowest risk.
Project Mean Risk ²²	Summation of the total risk of all pixels (100-meter x 100-meter cell) linked to a Project, divided by the total number of pixels.
HFTD Tier	CPUC High Fire Threat District Tier per D.17-01-009. Possible Values: • Tier 2 • Tier 3
Feasibility Score by Project ²²	Cost multiplier indicating the difficulty of undergrounding the Project based on presence of hard rock, water crossing, and gradient. The scale ranges from 1 to 3, with 3 being most challenging.
Cost-Benefit Ratio	Cost-Benefit Ratio of the Project per D.22-12-027. Benefits must relate to the mitigation of overhead line miles not miles of undergrounding.
Risk Reduction	Risk Reduction of the Project per D.22-12-027.
Unit Cost per Underground Mile	Project Unit Cost per Mile of Undergrounding.
Unit Cost per Overhead Mile	Project Unit Cost per Mile of Overhead Exposure.
Total Cost	Total Project Cost.
Risk Tranche(s)	Risk tranches include a group of assets, a geographic region, or other grouping that is intended to have a similar risk profile such as having the same likelihood or consequence of risk events.
Overhead System Hardening - Cost Benefit Ratio ²³	Overhead System Hardening – Cost Benefit Ratio per D.22-12-027.
Overhead System Hardening - Risk Reduction ²³	Overhead System Hardening – Risk Reduction per D.22-12-027.
Overhead System Hardening - Unit Cost per Mile ²³	Overhead System Hardening Project Unit Cost per Circuit Mile.
Overhead System Hardening - Total Cost ²³	Overhead System Hardening Total Project Cost.
Customer Count	Number of customers served by project.

²³ Related to item 10 of the "Application Requirements" section.

Field Name	Field Description
Total Planned UG Miles	Total Planned UG miles for the project.
UG 20XX Complete	Total UG miles completed for the project at the time the SB 884 Application is filed.
UG Year 1 Forecast	UG miles for Year 1 of Project.
UG Year 2 Forecast	UG miles for Year 2 of Project.
UG Year 3 Forecast	UG miles for Year 3 of Project.
UG Year 4 Forecast	UG miles for Year 4 of Project.
UG Year 5 Forecast	UG miles for Year 5 of Project.
UG Year 6 Forecast	UG miles for Year 6 of Project.
UG Year 7 Forecast	UG miles for Year 7 of Project.
UG Year 8 Forecast	UG miles for Year 8 of Project.
UG Year 9 Forecast	UG miles for Year 9 of Project.
UG Year 10 Forecast	UG miles for Year 10 of Project.

Appendix 2: Statutory Requirements Cross-Reference

Code Section	Statutory Language	Staff Proposal Section (Page Number)
8388.5(a)	The commission shall establish an expedited utility distribution infrastructure undergrounding program consistent with this section.	Purpose (p. 1)
8388.5(e)(1)	Upon the office approving a plan pursuant to paragraph (2) of subdivision (d), the large electrical corporation shall, within 60 days, submit to the commission a copy of the plan and an application requesting review and conditional approval of the plan's costs and including all of the following:	Conditions for Approval (p. 7-8)
8388.5(e)(1)(A)	Any substantial improvements in safety risk and reduction in costs compared to other hardening and risk mitigation measures over the duration of the plan.	Application Requirements (p. 6)
8388.5(e)(1)(B)	The cost targets, at a minimum, that result in feasible and attainable cost reductions as compared to the large electrical corporation's historical undergrounding costs.	Application Requirements (p. 6) Conditions for Approval (p. 8)
8388.5(e)(1)(C)	How the cost targets are expected to decline over time due to cost efficiencies and economies of scale.	Application Requirements (p. 6)
8388.5(e)(1)(D)	A strategy for achieving cost reductions over time.	Application Requirements (p. 6)
8388.5(e)(3)	In reviewing an application submitted to the commission pursuant to paragraph (1), the commission shall consider not revisiting cost or mileage completion targets approved, or pending approval, in the electrical corporation's general rate case or a commission-approved balancing account ratemaking mechanism for system hardening.	Application Requirements (p. 5)
8388.5(e)(4)	Upon the commission receiving an application pursuant to paragraph (1), the commission shall facilitate a public workshop for presentation of the plan and take public comment for at least 30 days.	Public Workshop & Comments (p. 7)
8388.5(e)(5)	On or before nine months, the commission shall review and approve or deny the application. Before approving the	Application Conditional Approval,

Code Section	Statutory Language	Staff Proposal Section (Page Number)
	application, the commission may require the large electrical corporation to modify or modify and resubmit the application.	Denial, or Modification & Resubmittal (p. 4)
8388.5(e)(6)	The commission shall consider continuing an existing commission-approved balancing account ratemaking mechanism for system hardening for the duration of a plan, as determined by the commission, and shall authorize recovery of recorded costs that are determined to be just and reasonable.	Conditions for Approval (p. 8) Periodic Reviews for Authorization of Rate Recovery (p. 9)
8388.5(i)(2)	The commission may assess penalties on a large electrical corporation that fails to substantially comply with a commission decision approving its plan.	Background (p. 3) Penalties (p. 12)
8388.5(j)	Each large electrical corporation participating in the program shall apply for available federal, state, and other no ratepayer moneys throughout the duration of its approved undergrounding plan, and any moneys received as a result of those applications shall be used to reduce the program's costs on the large electrical corporation's ratepayers.	Background (p. 3) Application Requirements (p. 8) Progress Report (p. 11)