BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Develop a Risk-Based Decision-Making Framework to Evaluate Safety and Reliability Improvements and Revise the General Rate Case Plan for Energy Utilities	R.13-11-006 (Filed: November 14, 2013)

PACIFIC GAS AND ELECTRIC COMPANY'S OPENING COMMENTS ON THE REFINED STRAW PROPOSAL

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Pacific Gas and Electric Company (PG&E) provides these opening comments on the Refined Straw Proposal included as Appendix A to the Administrative Law Judge's (ALJ's) April 17, 2014 Ruling in this docket to consider changes to the Rate Case Plan (RCP).

In brief, PG&E supports the Refined Straw Proposal with modifications. PG&E has prepared a redlined version of the Refined Straw Proposal that addresses PG&E's concerns, included as Attachment 1.

PG&E's comments are organized as follows. Section I provides an introduction and summary of PG&E's position. Section II addresses the proposed Safety Model Assessment Proceeding (S-MAP). Section III addresses the proposed Risk Assessment and Mitigation Phase (RAMP). Section IV addresses certain Refined Straw Proposal recommendations related to the RCP. Section V addresses reporting and verification. Section VI applies the principles set forth in these comments to PG&E's upcoming rate cases, including proposed timelines for PG&E's 2017 General Rate Case (GRC) and its 2018 Gas Transmission & Storage (GT&S) rate case.[1/]

1/ As directed by the May 15, 2014 Scoping Memo and Ruling of the Assigned Commissioner and Administrative Law Judge, these comments do not address elements of the RCP that should be modified to promote more efficient and effective management of the rate case proceedings. PG&E will provide such comments on July 25, 2014, as directed by the Scoping Memo.

I. INTRODUCTION AND SUMMARY

PG&E supports the Refined Straw Proposal with modifications. PG&E supports those elements of the Refined Straw Proposal that directly promote risked-informed decision making in order to ensure that safety is made the top priority of the Commission, as required by Senate Bill 705.

PG&E commends the overall direction of the Refined Straw Proposal, although certain elements are not workable. PG&E's main recommendations are summarized below:

- The S-MAP is well-intentioned, but its current design allows process to overwhelm substance. The S-MAP should be restructured as a one-time (not recurring) proceeding separate from GRCs that (i) establishes the CPUC's expectations for risk programs and models and (ii) develops common risk terminology. The CPUC and stakeholders can more effectively monitor improvements in utility programs and models through a combination of RAMP submittals (see below), workshops or *en banc* meetings.
- The design of the RAMP would benefit by clarifying expectations that the Safety and Enforcement Division (SED) would be the principal entity engaged in discovery during this phase.
- The new reporting requirements are unworkable in their current formulation. The reports should be restructured into one report and scheduled for the end of the first quarter following the reporting period, not the fourth quarter, since calendar year data is not available on the timeframe envisioned by the Refined Straw Proposal.

Additionally, because PG&E's 2017 GRC is to be filed next summer without much time to incorporate the results of this rulemaking, PG&E describes its current plans for incorporating the concepts of the Refined Straw Proposal into the 2017 GRC. These comments also address aspects of the Refined Straw Proposal particular to the GT&S rate case.

II. S-MAP

As a threshold matter, PG&E supports transparency of its risk models and processes. PG&E has shared its thinking and its tools with the Commission, stakeholders and other interested parties. PG&E expects to continue to do so.

While this sharing is important, PG&E's procedures and tools may not be directly applicable to other energy utilities, and vice versa. This is because PG&E's risk management program has been developed to address the needs of PG&E's business operations and has evolved over time to incorporate PG&E's planning and budgeting processes. Thus, while it is important to promote consistency in certain areas (e.g., overarching goals of a risk program, terminology), it would not be advisable to require consistency in operational areas (e.g., risk modeling or specific operational goals) insofar as all utilities operational needs are unique.[2/]

Accordingly, the S-MAP may legitimately work to promote consistency in policy and administrative areas, but the S-MAP should not work toward consistency in operational areas. Flexibility should be the key. The formal use of risk analysis in planning and ratemaking is so new, models and processes will evolve and become more sophisticated over time. One size may not fit all and any model or process in use today is likely to change significantly as the utilities risk programs become more sophisticated.

Therefore, PG&E supports workshops to provide better definition for any S-MAP proceeding of (i) the scope and (ii) the process to be followed. If the Commission undertakes an S-MAP, the proceeding should focus on areas for consistency (e.g., high level goals, terminology) and should not prejudge whether or not future S-MAPs will be necessary. PG&E concurs that an S-MAP should take place independent from individual GRCs and, from PG&E's perspective, it is not necessary to have an S-MAP prior to each utility's subsequent GRC. After the utilities initial S-

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2/ An analogy can be made to the Results of Operations models employed by each utility. While the models are different for a variety of reasons, e.g., as a result of differences in the accounting systems used by the utilities, the models strive for the same high-level goal: an accurate summary of the utilities' financial view for ratemaking purposes. Similarly, the goal of the risk models should be an accurate assessment of the risks of the utilities' systems, considering utility-specific information on asset age and type, geography, etc.

MAP submittals, subsequent updates to the utilities' risk programs and modeling would be explained and incorporated into their RAMP presentations and GRC testimony. Furthermore, to the extent the Commission or stakeholders wanted to canvas new developments in risk management or modeling, the Commission and stakeholder could more effectively do so through workshops or *en banc* meetings than through subsequent S-MAPs.

III. RAMP

PG&E supports the Refined Straw Proposal's approach to the RAMP. PG&E agrees that it would be wise to focus, at least initially, on a limited number of asset-related risks. However, it is possible that the RAMP could be expanded over time to include additional risks that are not related directly to assets, e.g., Emergency Response, Wildfire, and Qualified Personnel.

PG&E is a proponent of having SED – or its consultants – review the RAMP. Further, PG&E agrees that SED need not become a party to the proceeding, as long as SED or its consultants are made available to respond to discovery and testify at hearings.

PG&E's main concern with the RAMP is ambiguity in the Refined Straw Proposal regarding the Commission's expectations for how entities other than SED should participate in the RAMP. Currently, neither the Office of Ratepayer Advocates (ORA) nor other parties have the same level of expertise as SED to perform the necessary technical reviews of the utilities' risk programs or measures to address asset-related risks. From an allocation-of-resources standpoint, it is fair – and indeed advisable – to place principal responsibility on SED for the RAMP review and report development. If all parties are expected to engage equally in discovery during the RAMP, those parties' limited resources may be stretched too thin to cover other phases in other utilities' GRCs that would be taking place concurrently. To the extent parties have specific issues related to the utilities' RAMP filings or SED's report, there will be ample opportunity to address those issues as part of the RAMP workshop and comment process, as well as in the more traditional phase of the GRC.

IV. MODIFICATIONS TO THE RCP

Modifications to the RCP will be necessary to meet key objectives of this rulemaking with respect to prioritization of safety and streamlining the process. Although PG&E will provide additional thoughts in this area in future rounds of comments (see footnote 1 above), PG&E here comments on those aspects of the RCP that are directly mentioned or implicated by the Refined Straw Proposal.

A. The Notice of Intent (NOI)

PG&E agrees with the Refined Straw Proposal that the NOI is no longer necessary and cannot be reasonably accommodated with the addition of the RAMP.

B. The Interval Length

PG&E agrees with the Refined Straw Proposal that the GRC cycle should remain on a three-year interval. Lengthening the interval could put the Commission in violation of state law regarding the need to audit the utilities once every three years. Also, lengthening the interval would jeopardize the quality of the technical data that underpins the new focus on risk.

C. The Proposed Schedule

The proposed schedule set forth in the Refined Straw Proposal has three shortcomings. First, ORA is given too much time to prepare its opening testimony. Under the Refined Straw Proposal, ORA is given nearly 7.5 months. (By way of comparison, the current RCP gives ORA only 2.5 months.) PG&E supports a substantial increase to the current time – but ORA should not be given any more than 4.5 months to prepare its opening testimony. If staffing is an issue, the Commission should act to increase ORA staffing. PG&E would support legislative efforts in that regard.

Second, too little time is given for rebuttal testimony. The Refined Straw Proposal provides only two weeks after the submission of opening testimony. Given the fact that in PG&E's last GRC roughly 20 parties filed testimony of varying length and complexity, allowing only two weeks is unworkable, resulting in inadequate opportunity for the utilities to conduct discovery or

respond to parties' positions. Six weeks would be better practice and would lead to clearer, more instructive testimony.

Third, too little time is given for reply briefs. The Refined Straw Proposal provides two weeks for reply briefs. Three weeks would be better practice. The reply briefs are the final word for the parties prior to submission. The ALJ and Assigned Commissioner reap no benefits from a product that is rushed and not well written.

D. Calendar Date Deadlines Should be Adopted

The Refined Straw Proposal is not clear on how the proposed schedule is to be implemented. PG&E believes that utilities should provide their RAMP submittals and formal GRC applications on calendar date deadlines. This would be a change from the current RCP, where utilities are free to file their rate cases on dates of their choosing. Though interval-based deadlines are prescribed in the RCP, these deadlines are routinely ignored in the setting of new schedules at or around the time of the Prehearing Conference. This flexibility creates unpredictability, which contributes to delays.

PG&E proposes that this proceeding should adopt formal calendar date deadlines. To the extent that utilities wish to file on dates different than those prescribed in this proceeding, the utility shall seek leave to do so with the Executive Director. Similarly, Commission staff and stakeholders shall be bound by the deadlines set forth in the Rate Case Plan and must seek leave from the Executive Director if unable to do so.

Having established calendar date deadlines from year-to-year will allow for efficient planning. For example, planning for the assignment of ALJs and Commissioners can be done in advance, as can the scheduling of the Prehearing Conference. SED or consultants known to be needed to review a utility submittal can be hired in advance. Similarly, staffing for cases, scheduling of vacations and even the reservation of hearing rooms and court reporters can be done in advance and no longer need contribute to delays.

V. REPORTING

The new reporting requirements are unworkable in their current formulation. The reporting should be scheduled for the end of the first quarter following the reporting period, not fourth quarter, since calendar year data is not available on the timeframe envisioned by the Refined Straw Proposal. Specifically, PG&E proposes that the material be submitted no later than March 31 of the year following the reporting period.

Also, the additional reporting requirements need not be broken down into two separate reports. To require two reports where one is suitable is inconsistent with the notion of streamlining current reporting. Whatever goals may be achieved through separate reports can be achieved by including the information in separate sections of the same report. Hence, at the very least, the two proposed reports should be restructured into one report and scheduled for the end of the first quarter.

In Attachment 2, PG&E offers a proposed format for its report that meets the objectives set forth in the Refined Straw Proposal. The Refined Straw Proposal envisions that the report will include projected and actual "Risk Mitigation to Cost Ratios." Currently, the risk scores that would be used as a proxy for the risk mitigation value – and that support the "heat map" at the beginning of Attachment 2 – have limited value in creating such a ratio. The risk scores have great value to PG&E in the development of the Company's risk registers and risk response plans. However, the scores are generally used to prioritize spending within a given budget or rate case cycle, not to quantify risk mitigation benefits at the level suggested in the Refined Straw Proposal. As the Company becomes more systematic in the collection and use of data to inform risk scores, it may be possible to compare projected to actual risk reductions over time. In the meantime, a better alternative would be to describe the work completed under the risk mitigation plan as well as to report on any performance improvements (through operational metrics for example) related to the mitigation plan.

Before adopting any new reporting requirements however, the Commission should rationalize and streamline its current reporting requirements. For instance, certain aspects of the new reporting requirements overlap with existing reporting requirements, such as:

- Annual Budget Reports: As a requirement from PG&E's 2011 GRC, PG&E has submitted annual budget reports, due March 31, comparing imputed/authorized amounts to budgeted and spent amounts by major work category, and explaining material variances. PG&E has proposed that such reports continue through the period of PG&E's 2014 GRC.
- Semi-annual gas safety reports: PG&E's 2011 GT&S rate case and 2011 GRC require the submission of detailed project-by-project information for gas transmission and distribution safety projects. These reports are due in March and September for an indefinite period.[3/]
- General Orders 112-E, 166 and 167, as well as Decision 06-04-055: These Commission directives require utilities to submit information on a variety of reportable incidents, such as certain outages, dig-ins and leaks.

Any new requirements should be adopted in coordination, or consolidation, with such existing reports. Various participants, including Commission staff, expressed concern at the March workshop that current reports are already too voluminous and not easily accessible to staff. Adding new requirements without eliminating or rationalizing existing requirements, will contribute to this problem.

Therefore, PG&E recommends that the Commission convene a workshop to evaluate the usefulness and necessity of reporting requirements. PG&E has proposed a similar workshop to rationalize and streamline reporting in its 2015 GT&S filing.

3/ See also Public Utilities Code Section 958.5.

VI. APPLICATION OF PRINCIPLES TO UPCOMING PG&E RATE CASES

PG&E expects to file a 2017 GRC and a 2018 GT&S rate case. The sections below describe how PG&E intends to apply the principles of this proceeding for those upcoming filings.

A. 2017 GRC

PG&E understands that the Commission hopes to conclude this OIR by early 2015. Yet, according to the timeline that PG&E has proposed in this proceeding, the RAMP submittal for the 2017 GRC (were there to be one) would be due in October of this year. Similarly, PG&E cannot wait for the conclusion of an S-MAP to prepare its 2017 GRC.

As described in its 2014 GRC rebuttal testimony and Opening Brief, PG&E plans to significantly increase its risk showing in its 2017 GRC. Those plans were consistent in spirit with the direction of this OIR. Accordingly, PG&E remains on course to increase its risk showing in the 2017 GRC and to submit its NOI in early July 2015. To the extent that the Commission would like to engage technical review of PG&E's operational plans – as it did in the 2014 GRC with SED's review of the electric, gas and energy supply testimony – PG&E urges the Commission to commence that review even in advance of the NOI and proposes that SED begin its review of the draft operational plan that forms the basis for the GRC filing as early as May 1.[4/]

PG&E proposes the following schedule:

May 1	SED commences technical review over draft operational plans
July 1	Utility submits NOI to ORA for deficiency review and SED continues the technical review of operational plans
August 1	ORA provides list of deficiencies
September 1	SED's technical review is completed

4/ Given the time required for State of California contracting, PG&E urges the Commission to start the process of bringing on consultants (assuming they are necessary), in sufficient time in advance of May 2015.

November 15	Utility files application, including revisions to operational plans in response to technical review (if necessary); Commissioner and two ALJs are assigned
December 1	Prehearing Conference is held
February 1	ORA submits report
February 15	Other parties submit opening testimony
March 15	All parties submit rebuttal
March/April	Public Participation Hearings held
April 1-30	Evidentiary hearings held
May 30	Opening Briefs filed
June 20	Reply Briefs filed
July	Update Testimony filed, if necessary
November	Proposed Decision
December	Final Decision

PG&E will need approximately six months' notice to revise its filing in any significant substantive way. Therefore, absent timely direction to the contrary, PG&E intends to proceed with its 2017 GRC as described above and in its 2014 GRC.

B. GT&S Rate Case

Throughout this proceeding to date, the focus has been on structure and scheduling of GRCs, less so the structure and timing of PG&E's GT&S rate case. This section addresses aspects of the Refined Straw Proposal particular to the GT&S rate case.

As a preliminary matter, PG&E does not believe it is necessary to combine Gas Distribution with the GT&S rate case. The stakeholders and interested parties in the proceedings are significantly different. The only overlap between the roughly 20 parties in PG&E's recent GRC with the roughly 30 participating in PG&E's current GT&S rate case are ORA and TURN. With the issues being different and more than 90 percent of the interested parties being different, PG&E sees no efficiencies from the combination of the two cases.

In terms of timing, PG&E does not believe a separate phase for RAMP would be required for the GT&S rate case. This is because most of the programs set forth in the GT&S rate case relate directly to safety and reliability. In Attachment 3, PG&E sets forth a proposal for incorporating a risk assessment – similar to that envisioned for the RAMP – into the GT&S rate case schedule.

VII. Conclusion

For the foregoing reasons, PG&E recommends that the Refined Straw Proposal be revised as shown in Attachment 1.

Respectfully Submitted,

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Dated: May 23, 2014

Attachment 1

Redlined Refined Straw Proposal

Refined Staff Straw-Proposal
R.13-11-006
April 17, 2014 Version
w/PG&E May 23 Comments

Refined Staff Straw-Proposal
R.13-11-006
April 17, 2014 Version
w/PG&E May 23 Comments

I. Introduction and Summary

The key goal of this proceeding is to modify the current General Rate Case (GRC) process to ensure that the utilities are focusing on safety, assessing the right risks, and spending ratepayer money to address those risks in a cost-effective manner. The reformed process should meet this overarching goal, while satisfying the following procedural principles:

- **Transparency**: the Commission and all interested parties should be given full access to all data and models on which the utilities, the Commission staff, and any other parties base their proposals or recommendations;
- **Participatory Inclusivity**: all interested parties should have a full opportunity to monitor or participate in each step of the process; and
- **Accountability**: the utilities should be held accountable for ~~achieving~~reporting on the risk mitigation benefits they ~~claim~~forecast and for spending ratepayer money wisely and efficiently.

To achieve this goal and to satisfy these principles, three new processes should be adopted:

1. Beginning ~~either as part of this proceeding or~~ as an immediate spin-off from this proceeding (i.e., separate from GRCs), the Commission ~~should initiate~~will hold a ~~periodic (perhaps triennial),~~workshop to establish the scope of a generic (i.e., all energy utility)[1] Safety Model Assessment Proceeding (S-MAP~~), the twin~~). The purposes of ~~which~~the S-MAP would be to: (1) allow parties to understand the models the utilities propose to use to identify and evaluate top risks and prioritize the programs/projects intended to mitigate ~~risks~~them and (2) ~~allow the Commission to establish standards and requirements~~develop a common risk lexicon that can serve as the guide for ~~those models. Similar to the now well-established Long Term Procurement Planning (LTPP)~~future proceedings~~, each successive S-MAP would have the ability to respond to changing circumstances and could build on its predecessor S-MAPs and tackle increasingly sophisticated and challenging issues~~.

[1] Or at least the four major energy utilities: PG&E, SCE and the SDG&E and SoCalGas.

2. As an initial phase of each utility's GRC there will be a Risk Assessment and Mitigation Phase (RAMP)[2], in which the utility presents the top ten asset-related risks for which the utility expects to seek recovery in the GRC. The focus of at least the initial RAMP will be on asset conditions and mitigating risks ~~to~~ associated with those assets. ~~However, as this process matures, S-MAPs will become more and more sophisticated and the Commission will also have better information on guidelines and standards thus allowing us to move beyond just asset conditions. As S-MAPs are developed the~~ The assessment that ~~make~~makes up the RAMP would be based on the model that was vetted in the S-MAP and that complies with ~~all~~any CPUC requirements for the model determined in the ~~most recent~~ S-MAP. Parties should also be expected to follow the common risk lexicon adopted in the S-MAP. All parties, including the Commission staff, would have an opportunity to understand the analysis, data and assumptions underlying the utility's presentation and to present a response to the utility's presentation. Although there would be no Commission decision in this phase, the utility's presentation and the staff and interested party responses would inform the utility's recommended projects and funding requests in the subsequent phase of the GRC, which would be equivalent to the current project-focused GRC.

3. ~~Two~~One annual Verification ~~documents~~document to be submitted by each utility, consisting of two parts:

   a. A Risk Mitigation Accountability ~~Report~~section, in which the utility compares its GRC projections of the benefits and costs of the risk mitigation programs adopted in the GRC with the actual benefits and costs, and explains any significant discrepancies; and

   b. A Risk Spending Accountability ~~Report~~section, in which the utility compares its GRC projected spending for approved risk mitigation programs or projects with the actual spending on those projects, and explains any significant discrepancies.

   ~~c.~~ To be most useful, ~~these Reports~~this Report should be ~~audited~~reviewed by the appropriate Commission staff, with the ~~audit~~ methodology and findings made available to all interested parties.

Each of these proposed new processes is discussed in more detail below, followed by a recommendation for integrating these processes into the GRC framework.

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[2] This phase is meant to be equivalent to the RAPP in the Staff Straw Proposal, with a change in wording of the name to reflect (a) the importance of not just identifying and prioritizing risks, but also prioritizing risk mitigation efforts and (b) the recommendation that this be a part or phase of the GRC and not a separate proceeding.
~~and (b) the recommendation that this be a part or phase of the GRC and not a separate proceeding.~~

II. Safety Model Assessment Proceeding (S-MAP) – A New Proceeding Separate from the GRC

Because the utilities intend to rely upon potentially complex models, often of a quantitative nature, to prioritize both risks and risk mitigation measures, the Commission should institute a ~~periodic - perhaps based on the overall GRC cycle –~~ proceeding that would serve two main purposes with respect to these models: (1) to allow the Commission and parties to examine, understand and comment upon these models; and (2) ~~for the Commission to establish guidelines and standards for these models~~to develop a common risk lexicon that can serve as the guide for future proceedings.

In ~~each~~the S-MAP, each of the major utilities would present a complete explanation of the current version of their model (or models) that they plan to use in the RAMP phase of their upcoming GRC for prioritizing risk and risk mitigation measures. Consistent with the principle of transparency and Commission Rules of Practice and Procedure 10.3 and 10.4 (governing computer models), the utilities would make their models, data sources, and assumptions fully available for review by Commission staff and any interested party.[3] At a minimum, the utilities would provide documentation sufficient for interested parties to understand the basic logical processes linking the input data to the output, including but not limited to a manual which includes:

- A complete description of how the model operates and its logic. In the interest of Participatory Inclusivity, this description should be understandable by non-experts in computer modeling. For the benefit of experts, the utilities should supplement this lay description by making use of equations, algorithms, flow charts, or other descriptive techniques.
- A complete list of variables (input record types), input record formats, and a description of how input files are created and data entered as used in the sponsoring utility's computer model(s).
- A description of a diagnostics and output report formats as necessary to understand the model's operation.

The Commission staff and any interested party would be given an opportunity to ask questions, comment upon and make recommendations regarding these models. To assist in the Commission's review, the Commission may wish to hire technical experts. Any comments and/or recommendations of Staff and parties would be made available to all interested parties.

~~Similar to~~Should the ~~evolution of LTPPs~~Commission determine that future S-MAP proceedings are warranted, the goals and outcomes of ~~each~~such successive S-~~MAP~~MAPs would evolve with changing circumstances and likely become more sophisticated over time. The initial S-MAP may serve primarily an informational and educational function – acquainting parties with the

[3] *See*, http://docs.cpuc.ca.gov/SearchRes.aspx?docformat=ALL&DocID=89380172.

utilities' models – and provide utilities an opportunity to hear reactions from Commission staff and parties and modify their models as they deem appropriate in response to Staff/parties' concerns and recommendations. However, ~~even~~ the initial S-MAP ~~could result in required standards and guidelines that each utility must satisfy. For example, to avoid unnecessary definitional issues, the Commission could determine~~should develop a uniform risk lexicon that all ~~models~~parties in future proceedings must follow. The Commission could also establish other basic elements that utility models must satisfy. This initial S-MAP could be initiated promptly, ~~either as part of this docket or~~as a separate spin-off docket.

~~In successive S-MAPs, the Commission could establish more detailed standards or guidelines for utility models, with a goal of making the utility models as uniform as possible. Uniformity of models would have the obvious benefit of reducing burdens on Commission staff and parties to learn multiple models and would also increase the comparability of risk priority and mitigation analyses among the utilities.~~

~~The table below shows some models that may be evaluated in the S-MAP phase.~~

Model	Description of models and processes to be evaluated
Asset condition models	Models of the current and expected status of assets within the utility network. This includes hazard analysis models, failure analysis models, vulnerability analysis models, etc.
Enterprise risk models	ERM is used to evaluate and compare risks across several domains within a utility. This capability allows a utility to establish a uniform and consistent risk reduction strategy and is manifest in the development of programmatic priorities. The accuracy, precision , and reproducibility of these models are key indicators of the effectiveness of the resultant strategies.
Data models	Database schemas, repositories and other methods are used to store, track and archive, data about the assets of a utility. How, when, and how often data records are updated and validated are key indicators of the veracity and the value of information utilized by other models.
Information gathering methods	Physical tests (e.g. Hydrostatic tests) and other testing and survey protocols are used to verify asset condition and identify areas of concern.
Risk Taxonomy	A taxonomy is a model of and process for classifying , defining and identifying different types of risks that the utility faces. A taxonomy should include the top risks that a utility faces. A taxonomy also identifies interrelationships of risks and provides guidance about how new risks can be classified and contextualized against known risks.
Risk Lexicon	A lexicon may not typically be thought of as a model , but a common language is required to facilitate meaningful communication about risk models. S-MAP should develop a lexicon and promote the use of a common lexicon among all the IOUs.

Depending on the issues to be addressed in ~~a given~~the S-MAP, these proceedings, like LTPP, should be able to do much of their work through workshops and comments. However, the Commission would always be free to order evidentiary hearings when appropriate.

In the RAMP phase of GRCs (discussed in the next section), utilities would need to show that the models they are using to prioritize risks and mitigation measures ~~comply with any Commission requirements or guidelines emerging from~~are the same models that were vetted in the most recent S-MAP. ~~Utilities~~ Alternatively, to the extent the models differ, utilities would ~~also~~ be required to explain in the RAMP any ways in which the models they use for their RAMP showing differ from the model presented in the last S-MAP.

III. Risk Assessment and Mitigation Phase (RAMP) – A New Phase of the GRC

RAMP would be a new initial phase of each utility's GRC[4] (equivalent to the RAPP in the Straw Proposal), the purpose of which would be to examine the utility's assessment of its key risks and its proposed programs for mitigating those risks. Commission Staff[5] ("Staff") would issue a staff report that assesses (i) the risk assessment procedures that provide the basis for the utility proposals and (ii) the technical merits of the utility proposals. To the extent Commission Staff recommends a different portfolio, such recommendations should be clearly articulated in the report and the basis for such recommendations provided. All stakeholders will have an opportunity to comment on the Commission Staff's report. This phase will not have a standalone Commission decision. The final report would be made part of the record in the proceeding and Commission Staff would be made available to testify during evidentiary hearings in the GRC. The final report must be included in the utility's formal GRC submittal along with an exhibit showing (i) how the utility addressed the various recommendations in the Staff report and (ii) any changes to the proposed programs or projects set forth in the RAMP submittal.

The RAMP would contain at least the following:

- The utility's prioritization of the risks it believes it is facing and a description of the methodology used to determine such risks. Additionally, if the GRC (e.g., in PG&E's case) does not address all aspects of the utility's CPUC-jurisdictional operations, the utility should place the risks that are germane to the GRC in the context of all risks faced by the utility.

- A description of the controls currently in place, as well as the "baseline" costs associated with the current controls;

- The utility's prioritization of risk mitigation alternatives, in light of estimated mitigation costs in relation to risk mitigation benefits ~~(Risk Mitigated to Cost Ratio).~~[6].

- The utility's risk mitigation plan, including an explanation of how the plan takes into account:

    - Utility financial constraints
    - Execution Feasibility
    - Affordability Impacts
    - Any other constraints identified by the utility

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[4] After the 3-day workshop discussion it is the staff's recommendation to continue with the 3-year GRC cycle to ensure timeliness in terms of authorized revenue requirement and time relevancy of the risk analyses for RAMP.

[5] Safety & Enforcement Division.

[6] ~~*See* SCE Case Study, slides 13 and 14.~~

- For comparison purposes, at least two other ~~alternative mitigation plans~~alternatives the utility considered and an explanation of why the utility views these plans as inferior to the proposed plan.

~~The assessment needs to focus on asset conditions.~~ For the first RAMP we would like to see the top 10 ~~assets~~asset-related risks that the utility is seeking recovery for in the GRC and by association feels that these 10 asset~~ or asset families~~-related risks pose the most risk to a safe, resilient and reliable system. The utility's first RAMP would include the following:

The risk phase would commence with the utility submitting its RAMP report to the Safety and Enforcement Division. Concurrently, the utility would file a Notice of Availability of this material with the Commission's docket office, providing service of the NOA to the service list for the utility's prior GRC. At this stage, the Commission would assign a Commissioner and Administrative Law Judge(s) to the matter.

Within 30 days of submission of the risk material, the utility and Commission Staff would jointly hold a public workshop. During the workshop, the utility would provide an informational overview of the contents of its RAMP report and any changes to its risk model since the last SMAP and Commission Staff would explain the process it will follow in conducting its technical review. Participants would be invited to ask questions of the utility and Commission Staff, as well as to provide input to Commission Staff regarding its upcoming review.

Within ~~150 days~~4.5 months of submission of the risk material, the Commission Staff would provide to the utility and make available to interested parties its draft report that assesses (i) the risk assessment procedures that provide the basis for the utility proposal and (ii) the technical merits of the utility proposal. To the extent Commission Staff recommends a different portfolio such recommendations should be clearly articulated in the report and the basis for such recommendations provided.

Staff's report would answer the following questions:

- Is the proposal complete – i.e. does the proposal address the top risks as identified by the utility?
- Are there any significant risks that have been missed in the proposal?
- Are there reasonable mitigation options that have not been examined?
- Is the proposed risk mitigation contained in the proposal an efficient allocation for the risks that the utility faces? I.e., are there any proposed programs that are clearly dominated by possible alternative programs in terms of the risk mitigation per dollar spent?
- Do the proposed programs and alternatives represent a realistic set of options given the current condition of the installed assets, best practices for management of those types of assets, and the identified risks?

- Are the proposed risk mitigation programs in line with stakeholder preferences?

Within 30 days of submission of Staff's draft reports, the Commission would hold a public workshop to present, answer questions, and receive comments on, its draft report(s). Within 45 days of the submission of Staff's draft report, interested parties would provide comments on the draft to Commission Staff, the utility and interested parties.

Within ~~225~~30 days ~~of~~after submission of final comments on the ~~risk material,~~Staff's draft report, the Commission Staff would provide to the utility and make available to interested parties its final report, taking into consideration comments made on its draft report and input from the public workshop. Commission Staff's final report would be made part of the record in the proceeding[7] and Commission Staff would be made available to testify during evidentiary hearings in the GRC. Commission Staff such as those in the Safety & Enforcement Division would not be expected to become a formal party to the proceeding.

Through this process, all stakeholders will have an opportunity to (i) receive information regarding the utility's operational plans and Staff's planned technical review, (ii) review discovery between Commission Staff and the utility, (iii) comment and provide feedback on the Staff draft report(s), and (iv) cross-examine Commission staff or its consultants during evidentiary hearings. The Staff's final report(s) would reflect this robust and transparent record.

In the interest of avoiding delay in GRC-decision-making, there would be no Commission decision in the RAMP phase. However, as noted, the Staff and parties would gain an early indication of the utility's risk priorities and mitigation plans and Staff and party Responses would inform the utility's recommended projects and funding requests in the subsequent phase of the GRC. One possible mechanism that would streamline inclusion in the record of the GRC, as discussed below, would be transcriptions of any presentations and the open availability of any documents used in the RAMP phase.

The subsequent phase would be equivalent to the current GRC, in which the utility presents a complete application with supporting testimony and work-papers, parties conduct discovery and prepare responsive testimony, and evidentiary hearings are held. The utility's application and testimony would need to include its RAMP showing, explain how its detailed GRC proposal relates (maps) to its RAMP showing, and explain any changes to its assessment and plans in response to the RAMP phase. If Staff or any party wishes to introduce its Response to the utility RAMP showing into the GRC record, the Responses would be subject to discovery and cross-examination. Absent such election, Responses would not be part of the record on which the Commission could base its GRC decision.

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[7] The SED report must be included in the utility's formal GRC submittal along with an exhibit showing (i) how the utility addressed the various recommendations in the SED report(s) and (ii) any changes to the proposed programs or projects set forth in the ~~RAPP~~RAMP submittal.

IV. Schedule for GRC Phase I

Below is a depiction of a GRC timeline without a filing of Notice of Intent (NOI). In GRC applications the utility's preparation of a "Notice of Intent" is an opportunity for ORA to review a draft of the utility's application in order to determine whether the application is complete and, if it is not, to secure supplementation from the utility as a condition to filing. The NOI time period is close to six months and with ORA as well as the rest of the Commission always in a state of limited resources ~~staff wonders whether,~~ this is an opportune time to re-direct staff resources to drafting testimony and analysis of utility's filing. The utilities always have and will always continue to have the burden of proof to support its forecasts by a preponderance of evidence. If the utility's filing is not complete then ORA as well as other parties should identify the lack of proof/completion as part of their testimony. The assigned administrative law judge will then consider this information as he/she drafts the proposed decision. ~~Additionally, and this should go without saying that the utilities must respond to all discovery requests made by ORA and other Commission staff during this GRC process.~~

Deadline	Activity	Time After Prior Activity (illustrative and not to conflict with calendar deadlines at left)
October 1 of Base Year	Utility provides RAMP submittal on operational lines of business	--
November 1	Utility and Commission Staff host public workshop on risk submittal	30 days after submittal
March 1 of Base Year, Plus 1	Staff issues draft report	150 days after submittal
April 1	Staff hosts public workshop on draft report	30 days after issuance of draft report
April 15	Stakeholders provide comments on Staff report	45 days after issuance of draft report
May 15	Staff issues final report	30 days after receiving comments on draft report
September 1	Utility files GRC application, including possible changes from RAMP submittal	105 days after issuance of final report
October 1	Utility hosts public workshop on overall GRC application	30 days after filing of application
November 1	Staff issues verification that utility has addressed technical recommendations in Staff Report	60 days after filing of application
January 15 ~~April 11~~ of Base Year, Plus 2	ORA submits report~~& Interveners submit opening testimony~~	4.5~~7~~ months after filing of application
February 1	Other parties submit opening testimony	2 weeks after ORA report
March 1~~April 25~~	Concurrent rebuttal testimony	Four ~~Two~~ weeks after others' opening testimony
March/April	Public Participation Hearings	
March 15 – April 15~~May 12 – May 30~~	Evidentiary Hearings, including Staff participation	2 weeks after rebuttal testimony
May 15~~June 30~~	Opening briefs	1 month after end of hearings
June 7~~July 14~~	Reply briefs	3 ~~2~~ weeks after opening briefs
July	Update testimony and hearings, if necessary	--
November	Proposed decision	4 months after reply briefs
December	Final decision	1 month after proposed decision

V. Verification – New Accountability ~~Tools~~Tool

To assist in the goal of improving utility accountability for the ratepayer money spent on risk mitigation efforts, the utilities would be required to prepare ~~two~~a new annual ~~reports~~report (Report) with two parts.

The first section would be ~~a~~on Risk Mitigation Accountability ~~Report~~, in which the utility compares its GRC projections of the benefits and costs of the risk mitigation programs adopted in the GRC with the actual benefits and costs, and explains any significant discrepancies. This ~~Report~~section would consist of a program-by-program comparison of the utility's GRC

predictions of risk mitigation programs -- quantified as much as possible using the models examined in the S-~~MAPs~~MAP and ~~use~~used to prepare the RAMP assessments -- with, to the extent possible, measured results of actual risk mitigation programs~~, including a comparison of projected and actual Risk Mitigation to Cost Ratios~~. The document would provide a high-level summary of the utility's explanation of the reason for any significant variation between projected risk mitigation and actual risk mitigation. ~~The utility files this report by December 31st of each year. Commission Staff such as staff from Safety & Enforcement Division will audit the findings and issue its report on March 31st of each year.~~

The second section would be ~~a~~on Risk Spending Accountability ~~Report~~, in which the utility compares its GRC projected spending for approved risk mitigation programs or projects with the actual spending on those programs or projects, and explains any significant discrepancies. This ~~Report~~second section would consist of a program or project-by-project (above an appropriate Commission-determined dollar cut-off) comparison of authorized vs. actual spending, accompanied by the utility's narrative explanation of any significant differences between the two. ~~The utility files this report by December 31st of each year. Commission Staff such as staff from the Energy Division will audit the findings and issue its report on March 31st of each year.~~

~~Both Reports~~The Report would be prepared annually, due March 31, and served on the Commission and all interested parties, ~~and~~after which it would be promptly posted on the Commission's website ~~on March 31st of each year. As part of its opening comments to this staff proposal, utilities are asked to provide a sample form for each of these reports. These sample forms will be used as guidance for all stakeholders to modify and/or simplify the utility reports as part of reply comments to this staff proposal~~.

~~These Reports~~The Report would only be a starting point for achieving utility accountability for risk mitigation spending. Utility representations would not be accepted at face value by the Commission. Instead, the ~~Reports~~Report would be ~~audited~~reviewed by Commission Staff, and, in furtherance of the goal of transparency, the Staff ~~audit~~ methodology and findings would be made available to all interested parties ~~and~~, posted on the Commission's website~~.~~ and subject to discovery and further examination in the utility's next GRC.

~~Provided that they are effectively audited by Commission Staff, these Reports and the audit~~The Report and the Staff findings would serve the primary purpose of enhancing Commission oversight of utility safety related activities and spending. The ~~Reports~~Report, coupled with the Staff audit methodology and findings, could also be a useful ~~tools~~tool for intervenors to help in holding the utilities accountable for GRC spending. For example, intervenors could use the ~~Reports~~Report to frame discovery requests or otherwise raise issues regarding a utility's failure to achieve ~~Mitigation to Cost Ratio targets~~risk mitigation benefits or a utility's repeat request for risk mitigation that was supposed to be completed in the previous GRC cycle. ~~If a utility wished to introduce a Report or if Staff wished to introduce its audit findings into the record of a GRC, in both instances, the documents to be introduced would be subject to discovery and cross-examination.~~

VI. Lexicon

In pursuit of developing fundamental regulatory processes for defining, acquiring, and disseminating risk-based information that supports rate-setting and project prioritizing decisions in order to focus on safety and resiliency of the utility operations ~~below is a list of definitions of terms that are most commonly used. This is not an exhaustive list and parties are asked to comment not only on the above sections, but also on whether these are the right definitions for these terms and whether we should add additional terms to this list. This lexicon is at its infancy at best. This would need to be developed as part of the first S-MAP.~~, a common understanding of terms would be beneficial. For example, it would be good to have common understanding around terms such as the following:

Risk: potential for an unwanted outcome resulting from an incident, event, or occurrence, as determined by its likelihood and the associated consequences. (Source: DHS Risk lexicon)

Mitigation: action to reduce the probability of, or lessen the impact of, an adverse incident. (Source: DHS risk lexicon)

A complete list of terms and their meaning would need to be developed as part of the first S-MAP.

~~1. ***Asset –*** A utility infrastructure such as transformers, pipelines, poles, etc.~~

~~2. ***Enterprise Management*** - A comprehensive approach to risk management that engages organizational systems and processes together to improve the quality of decision-making for managing risks that may hinder an organization's ability to achieve its objectives.~~

~~3. ***Hazard*** - Any existing or condition that can lead to injury, illness or death to people; damage to or loss of a system, equipment, or property; or damage to the environment. A hazard is a condition that is a prerequisite to an accident or incident.~~

~~4. ***Hazard Function*** - The conditional probability that an asset will fail in the next interval of time, given that it has survived up to the beginning of that interval; depends on the operating condition of the asset.~~

~~5. ***Incident*** - An occurrence other than an accident that affects or could affect the safety of operations.~~

~~6. ***Safety*** - Safety is the state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a~~

~~continuing process of hazard identification, and safety risk management, and safety assurance.~~

7. ~~***Safety Objective*** – Safety goals or desired outcomes, which are typically measurable.~~

8. ~~***Safety Requirement*** – A safety condition or capability that must be met or passed by a system to satisfy a contract, standard, specification or other formally imposed document or need.~~

9. ~~***Safety Risk*** – The composite of predicted severity and of the potential effect of a hazard. The potential to property damage that will lead to worker and/or public injury.~~

10. ~~***Safety Risk Control*** – A characteristic of a system that reduces safety risk. Controls may include process design, equipment modification, work procedures, training or protective device.~~

11. ~~***Threat*** – A natural or man-made occurrence, individual, entity, or action that has or indicates the potential to harm life, information, operations, the environment, and/or property.~~

12. ~~***Uncertainty*** – A situation in which more than one outcome is possible and one does not know which outcome will occur.~~

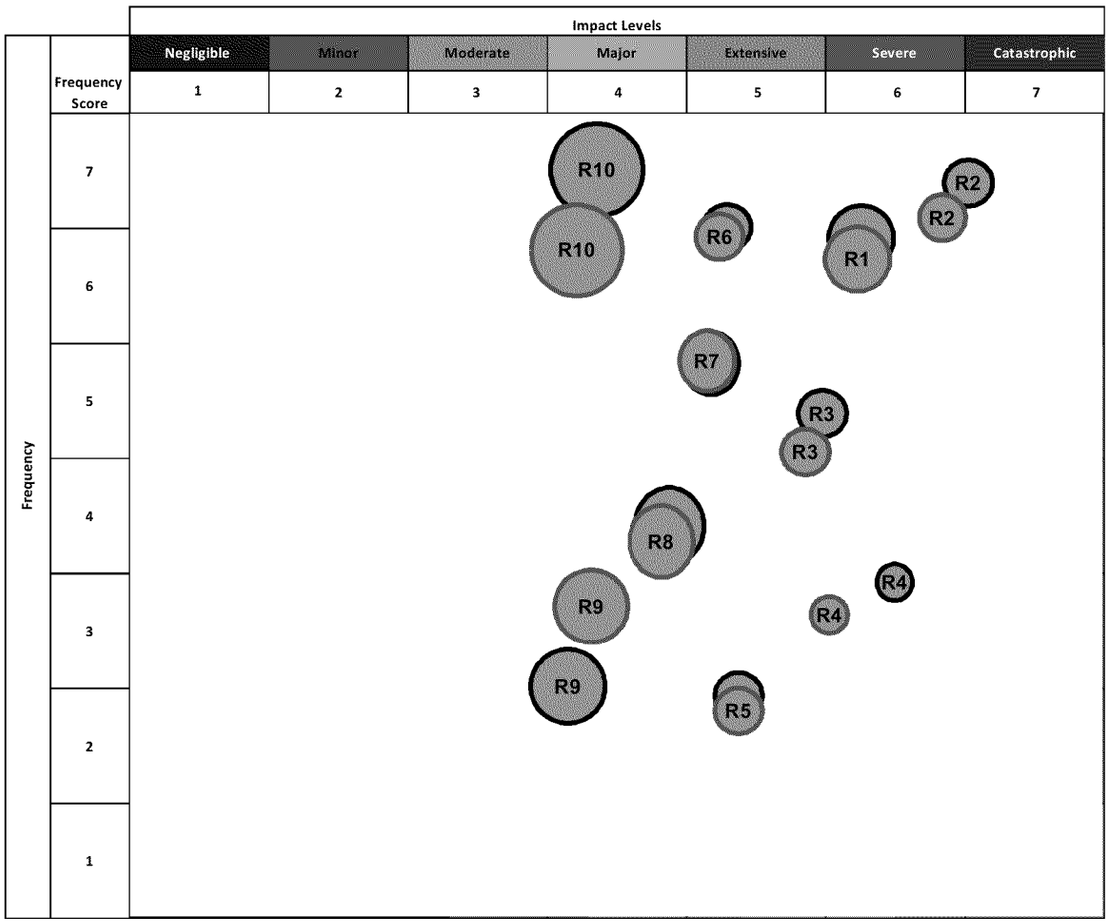
Attachment 2

Illustrative Report Templates

Attachment 2

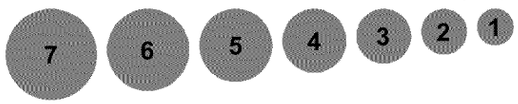
Draft Verification Report

Section 1 – Risk Mitigation Overview
Asset Risk Heat Map



Risk #	Asset Risk Name
R1	Asset Risk 1
R2	Asset Risk 2
R3	Asset Risk 3 - Distribution Overhead Conductor (Primary Voltage)
R4	Asset Risk 4
R5	Asset Risk 5
R6	Asset Risk 6
R7	Asset Risk 7
R8	Asset Risk 8
R9	Asset Risk 9
R10	Asset Risk 10

Bubble size is based on the seven levels of the Safety impact



Prior Level of Risk

Current Risk

For Illustration Purposes Only

Asset Risk	Explanation of Risk Reduction or Increase	Adopted Spend ($000s)	Actual Spend ($000s)	Variance ($000s)	Explanation for Significant Variance
R1	Asset Risk 1 Write-up				
R2	Asset Risk 2 Write-up				
R3 – Distribution Overhead Conductor (Primary Voltage)	Risks of overhead conductor failures/contacts have been reduced as PG&E implemented mitigation measures proposed in the 2017 GRC, including: Vegetation Management; Line Overhead Maintenance Program; Design, Construction and Operating Procedures; Primary Conductor Replacement Program; Infrared Inspect/Splice Inventory Program; Engineer Site Investigation; and System Protection Program.				Overall, PG&E spent $x M more than adopted in the Overhead Conductor Programs, particularly in the Primary Conductor Replacement and System Protection programs.
R4	Asset Risk 4 Write-up				
R5	Asset Risk 5 Write-up				
R6	Asset Risk 6 Write-up				
R7	Asset Risk 7 Write-up				
R8	Asset Risk 8 Write-up				
R9	Asset Risk 9 Write-up				
R10	Asset Risk 10 Write-up				

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Section 2 – Risk Program Spending Accountability Report

R3 Distribution Overhead Conductor (Primary Voltage)

Mitigation	(a) GRC Forecast Expense ($000)	(b) GRC Forecast Capital ($000)	(c) GRC Adopted Expense ($000)	(d) GRC Adopted Capital ($000)	(e) Actual Expense ($000)	(f) Actual Capital ($000)	(e) – (c) Variance Expense ($000)	(f) – (d) Variance Capital ($000)	Explanation for Significant Variance
Vegetation Management	$160,000	n/a	$150,000	n/a	$150,000	n/a	n/a	n/a	n/a
Line OH Maintenance Program	$20,000	n/a	$20,000	n/a	$19,000	n/a	-$1,000	n/a	Reprioritized funding from OH notification and Critical Operating Equipment (COE) to focus on infrared inspection of OH conductor serving critical customers.
Design, Construction and Operating Procedures	$4,000	n/a	$4,000	n/a	$3,600	n/a	$400	n/a	Updating and training on design, construction and operating procedures was completed for less than forecast due to efficiencies in training development.
Primary Conductor Replacement Program	n/a	$32,500	n/a	$28,000	n/a	$30,000	n/a	$2,000	Additional capital expenditures were required to replace deteriorating OH conductor to address reliability issues for customers experiencing 4 or more sustained outages during the year.
Infrared Inspect/Splice Inventory	$13,000	n/a	$11,000	n/a	$12,000	n/a	$1,000	n/a	More infrared inspections were completed than adopted due to need to assess conductor strength serving critical customers.
Engineer Site Investigation	$5,000	n/a	$3,000	n/a	$4,500	n/a	$1,500	n/a	Engineers investigated more incidences of contact with primary wire than was assumed in the development of the adopted level of funding.
System Protection	n/a	$7,000	n/a	$7,000	n/a	$7,000	n/a	n/a	n/a

For Illustration Purposes Only

Attachment 3

Proposed Schedule for GT&S Rate Case

Proposed Schedule for GT&S Rate Case

Deadline	Activity	Time After Prior Activity (illustrative and not to conflict with calendar deadlines at left)
June 1 of Base Year, Plus 1	PG&E files GT&S application, including risk material	--
July 1	Utility and SED host public workshop on application, including risk submittal	30 days after filing of application
September 15	SED issues draft report on risk showing	4.5 months after application
October 1	SED hosts workshop on draft report	2 weeks after draft report
October 31	SED submits report	6 months after filing of application
December 15	As necessary, PG&E submits filing reflecting SED report recommendations	45 days after SED report
February 1 of Base year, Plus 2	ORA and other parties submit opening testimony	7 months after application
March 15	Concurrent rebuttal testimony	6 weeks after opening testimony
March/April	Public Participation Hearings	
April 1 – April 15	Evidentiary Hearings, including SED participation	2 weeks after rebuttal testimony
May 15	Opening briefs	1 month after end of hearings
June 7	Reply briefs	3 weeks after opening brief
November	Proposed decision	5 months after reply briefs
December	Final decision	1 month after proposed decision