**Further Stakeholder Comments on the**

**SB 884 OEIS Draft EUP Guidelines of 5/8/24**

**Robert A. Johnston, UC Davis, May 13, 2024**

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**Purpose**

I commented earlier on the Draft Guidelines issued by the CPUC and focused on the time period of analysis used. I requested that the CPUC and OEIS require that normal benefit/cost analysis methods be used by the IOU’s for the Sec. 8388.5(c)(6) comparison of alternatives. Then all costs and benefits are encompassed in one analysis, using globally accepted methods. Also, all metrics and risk models, etc. would be standardized across all utilities, to avoid gaming. The current fragmented system based on statistically invalid modeling at the circuit level greatly advantages the utilities, as the agencies and public interest groups have to negotiate over dozens of issues and over ever-changing risk models. Performing analyses for WMPs and EUPs at the project level also makes it nearly impossible to develop valid methods. Benefit/cost methods eliminate the need for statistical models, in that you are using all available data from past experience. One can evaluate those data for statistical significance, but you don’t have to.

Here I comment more specifically on parts of the Draft Guidelines, to show how impossible it will be to do objective evaluations using these Guidelines. All of these weaknesses are due to the lack of a valid overall evaluation theory.

**Problems**

1. Fragmented and overlapping metrics.

These Guidelines continue to view the problem of determining which alternative utility programs (portfolios of projects) are worthwhile as if it were a normal project-level engineering analysis, that is, short-term (and so time can be ignored) and fragmented into various evaluation screens metrics so as to meet criteria mandated by several laws adopted over decades. This is a legalistic evaluation system with various evaluation screens, intended to meet the requirements of the undergrounding statute and all preceding laws, but with no overall concept of economic efficiency or safety. I would guess that the agencies arrived at this piecemeal system by building off of the project-level analyses used in WMPs by the utilities and in rate cases.

For example, at 2.7.3 Key Decision-Making Metrics (KDMMs) are defined and the utilities are required to use 7 of them and may add up to 5 additional ones. This arbitrary system means that we cannot determine which portfolio of projects is “best” for any utility. The lack of a unified criterion (such as highest B/C ratio) invites gaming by the utilities and makes negotiation difficult. We cannot compare across utilities so see if the data and analyses are valid. The three Ignition Risk metrics can be better represented by a typical aggregate measure of economic benefits and costs due to changes in risk. Likewise the three Program Risk measures can be better calculated and understood by using economic benefits and costs due to changes in risk. The agency staff seem to not understand that all of these outcomes can be evaluated in terms of economic effects. Benefit/cost analysis includes non-market effects, such as death or unhappiness, which then total to get “net benefit of undergrounding.”

In benefit/cost analysis, one argues about “the value of a life” and most of the other cost and benefit categories, but these are resolvable discussions and many of them have been decided by experts in the past. Time is handled well in typical B/C analysis, or the parties agree on doing several versions of time discounting as a sensitivity test.

2. Time ignored.

The methods required in this Draft do not account for delays in implementing some projects, such as undergrounding, that will take decades to carry out. During those decades while we wait for all projects to be completed, we expect that several major wildfires will be ignited by any large IOU, based on past experience. The utilities seem to be making heroic efforts to avoid having to evaluate those huge costs caused by delays.

How can the IOU’s ignore the cost of delays? By following your directions to ignore events farther than 10 years in the future. Please at a minimum require that all wildfire ignitions be counted, in all future years, until all undergrounding is completed. Your system invites the utilities to stage their projects so they barely pass the screens, without ever accounting for these huge costs until it’s too late and we are locked into undergrounding by the scattered undergrounded circuits.

My earlier comments showed how we do not need detailed analysis at the project level to determine that undergrounding in most places is economically inefficient when compared to covered conductor (CC) and with Advanced Technologies (computerized and networked line monitoring and rapid shutoff). This is due to how rapidly these technologies can be implemented and their low costs.

3. Safety ignored.

By using your proposed fragmented system of evaluating projects, rather than evaluating complete plans that run to utility-wide completion (all circuits hardened), the IOU’s will be able to use their faulty circuit-based risk modeling. It would be much more informative if the Guidelines simply required a benefit/cost analysis for all projects in a portfolio that completes the hardening of all circuits. That is the normal approach in public agencies governing water resources projects and plans, nuclear power plants, and many other types of large-scale construction.

The IOUs’ project-level risk analyses are very difficult to understand for the public and so the utility regulatory process in California continues down the path toward becoming less and less democratic. I taught public policy analysis and policy evaluation, benefit/cost analysis, impact assessment, and related program and plan evaluation methods for decades at UC Davis and have had enormous difficulty understanding the models at PG&E and SCE. This is because they are not based on accepted economic welfare economics theory and common practices in benefit/cost analysis.

4. Outage Prevention Handled Poorly.

The Guidelines seem to allow the utilities to determine how to include Outage Prevention in their Projects and Portfolios. This is major mistake on the part of the agencies, as planned outages are controlled by the utility and so should be omitted from such evaluations. Unplanned outages are simply a cost in any project or plan. The Reliability Increase standard should be met by adding the minimum number of planned outages into all project and plan scenarios, after performing benefit/cost analysis.

The various metrics found in 2.7.8, Portfolio Standards, and in 2.7.9, Project-Level Thresholds, demonstrate the massive confusion caused by writing evaluation methods based on arbitrary legal standards, as found in this statute. A utility should perform and an agency verify a valid economic welfare evaluation and then derive the legally required metrics from the economic analysis. All 7 metrics listed in these two subsections can be reconciled to welfare analysis.

**Summary**

Referring to your Overview memo: The proposed Guidelines will not result in less uncertainty in terms of which projects to approve. These guidelines will not result in utility reports that are objective and useful. These Guidelines will certainly “maximize flexibility for the electric corporation”, but they will not result in “rigorous decision-making”, “transparent project selection”, or “ensure accountability”. These Guidelines certainly do not implement the CPUC decision D.22-12-027 requiring the use of a cost/benefit approach in major actions.

My Qualifications

 I taught and did research on environmental planning issues at UC Davis, 1971-2005. Since then, I have been a local planning commissioner and a State conservancy board member. I have also done applied research for community groups. I have been an expert in federal NEPA lawsuits on urban growth impacts. I have been a consultant to many local, regional, state, and federal agencies and NGOs.

 Some of my UCDavis research was funded by the Energy Commission, Caltrans, and other State agencies to perform statewide economic modeling, regional transportation modeling, build GIS modeling systems for specific programs, regional urban growth models, and various other kinds of public policy evaluation tools. My work included improving multi-objective evaluation methods used in water resources decision-making. I published research papers on benefit-cost methods, environmental assessment tools, and environmental justice. I helped the USEPA write the metro transport planning rule under the Clean Air Act.

 In general, I advocate the use of public policy evaluation methods, which include benefit-cost analysis, focus on long-range and large impacts, include qualitative impacts, and pay attention to equity effects on different income groups.

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