



**California Technical Forum (Cal TF)
Policy Advisory Committee (PAC) Meeting #7
September 3rd, 2015
12:00 pm - 4:30 pm
Pacific Gas & Electric
San Francisco**

I. Participants

Annette Beitel, Cal TF Facilitator
Alejandra Mejia, Cal TF Staff

Jan Berman, Pacific Gas & Electric (PG&E), PAC Member
Lisa Davidson, San Diego Gas & Electric (SDG&E), PAC Member
Dan Rendler, Southern California Gas Company (SCG), PAC Member
Hanna Grene, Center for Sustainable Energy (CSE), PAC Member
Steve Galanter, Southern California Edison (SCE), PAC Member
Margie Gardner, California Energy Efficiency Industry Council (Efficiency Council), PAC Member
Michael Campbell, CPUC Office of Ratepayer Advocates (ORA), PAC Member

Amir Roth, US Department of Energy (DOE), Lunch Speaker
Alice Stover, MCE, Ex Ante Alternatives Subcommittee Co-Champion

On the Phone

Martha Brook, California Energy Commission (CEC), PAC Member
Bryan Cope, Southern California Public Power Authority (SCPPA), PAC Member
Donald Gilligan, National Association of Energy Service Companies (NAESCO), PAC Member

II. Key Decisions and Action Items

Action Items:

- Add step to “Ex Ante Alternative” implementation plan to check whether measures are still being offered before workpaper is developed.
- Allocate time during October meeting for Steve Galanter to brief the PAC on SCE initiatives with CPUC staff to improve the current ex ante process.
- Send PAC members meeting materials via e-mail prior to PAC meetings.
- Provide Business Plan report-out in form used for the end-of-year 2014 Business Plan report-out.



- Provide budget for draft 2016 Business Plan.

III. Update on Cal TF Business Plan Objectives

Annette Beitel, Cal TF Facilitator—

Power Point Presentation

Mike Campbell—Have the Ex Ante Review team's dispositions changed the outcome of the measure or do they simply add more steps to be taken?

Annette Beitel—In general, they have not necessarily changed the savings estimates of measures we have reviewed. For example, much of the feedback on PG&E's Variable Refrigerant Flow measure focused on further validating the capabilities of EnergyPlus to accurately model the measure and on ensuring a correct baseline that reflects real world conditions. We've observed that Energy Division often seek additional information and analysis than Program Administrators are able to provide in their workpapers given existing data. This is the case even when there is no further data available at the time of measure development.

Bryan Cope—This sounds like a very uphill battle. Do you have any thoughts on why the ex ante team has been so unwilling to accept the Cal TF's analysis?

Annette Beitel—I wouldn't say that they are unwilling to consider Cal TF's measure review and recommendations. I would instead say that Energy Division and the ex ante consulting team is very concerned with protecting ratepayers. My view is that they would rather err on the side of holding back promising new measures until savings and other measure parameters are fairly well-established than taking the risk that forecasted savings don't materialize ex post.

Margie Gardner—It seems like the fact that Cal TF has reduced the initial savings estimates in so many workpapers should help give Energy Division staff confidence in the Technical Forum's impartial review.

Really, the reason that Energy Division is so skeptical of any savings estimates is because the state *has* seen significant divergence between what savings are projected and how much actually show up. However, the reductions over time have largely been the result of ex post EM&V that yields lower net-to-gross values than forecasted. That can very much still occur regardless of how much ex ante savings estimates are scrutinized and refined.



Steve Galanter—There is also a problem with staff’s understanding of the volume of activity that goes on as Program Administrators attempt to capture all opportunities.

Annette Beitel—We’ve identified, and reported on, several challenges and difficulties with the current workpaper development and review process that cause new measure review and development to be expensive and protracted. We’ve identified how the current ex ante (meaning deemed) measure development and review does not meet CPUC regulatory and state policy directives. Further, we have reviewed and analyzed how new measures are developed, reviewed, organized and maintained in other jurisdictions, and identified best practices, and how the current measure review process in California does not comport with nationwide best practices. Our view is that the current process is irreparably broken, and can’t be incrementally fixed, but needs to be replaced with an approach that meets state and regulatory policy objectives and directives, is consistent with nationwide best practices, and yields rigorous values in a timely and efficient way,

Measuring Success

Annette Beitel – In our last PAC meeting, Margie requested that we consider other metrics of success and Cal TF impact beyond those set forth in the Cal TF Business Plan. To measure “broader impact,” Alejandra has been monitoring the CPUC’s “Rolling Portfolio” rulemaking, and has tracked the frequency and number of parties who have identified Cal TF as an organization who should be addressing various technical issues in energy efficiency. By the measure of parties expressing confidence in Cal TF’s ability to address technical issues through their regulatory filings, as well as references to Cal TF in ALJ Rulings and the recent Proposed Order, Cal TF is clearly having a broad impact despite its short existence of just over a year. We also solicited anonymous feedback from TF participants on Cal TF through Survey Monkey. Over half the TF members responded to the survey – their comments, generally very positive, are contained as an Appendix to Cal TF’s First Year Report, posted on the Cal TF website.

Bryan Cope—I’ve been tracking this very closely and I can tell you that the POUs have gotten several accolades and positive press coverage from our participation in the Cal TF. I know that CEC Chairman Weisenmiller and Commissioner McAllister have made several positive references to Cal TF.

Margie Gardner—I think some additional broader metrics for success would involve tracking the percentage of Cal TF measures accepted by the ex ante



review team, and surveying a broader set of participants, like workpaper developers.

Dan Rendler—We need to look at the improvement in time spent on developing, reviewing, and securing approval of new measures.

Steve Galanter—In the context of the Business Plan discussion, I believe the organization has met its goals.

Margie Gardener—But it also seems that in the longer-term context, we need a drastic evolution or pivot of the charter to really make a difference.

Annette Beitel—I agree that the entire measure development and review process needs a major overhaul; incremental “tweaks” will not fix the underlying structural problems with the current system. The Cal TF mission statement is certainly broad enough to encompass the needed change, and we also have the capacity to lead that change.

Dan Rendler—If we are changing Cal TF’s scope, we need to make sure we are really thinking it through—we need to ensure that the right people and tools are being leveraged.

Bryan Cope—It seems to me that the solution *is* an ex ante alternative, and, as such, this is still a technical problem prime for Cal TF intervention.

Donald Gilligan—I think it is crucially important to make sure the people who can make decisions are in the room.

Annette Beitel—I completely agree that we need to continue our practice of broad collaboration and CPUC Staff needs to be part of the deliberation process associated with developing and implementing significant change.

Donald Gilligan—Nonetheless, I wonder how much of the problem we are attempting to solve is purely technical. If there are some aspects of the problem that are political, then will technical analysis really provide the necessary solution?

Annette Beitel—I strongly agree that good technical analysis, while obviously important and foundational to our efforts, will not alone solve the many issues that stakeholders have repeatedly raised regarding workpapers and other technical issues in California’s energy efficiency portfolios. The problems are systemic, and can only be addressed through significant changes to the current



system. Cal TF staff has extensively analyzed problems in the current system that relate to form, process and the content itself. Our opinion is that the current system is irreparably broken, and requires a complete overhaul rather than attempts at incremental improvements. While Cal TF has improved the technical quality of the workpapers, continuing to improve workpaper quality does not address the real and significant structural problems faced by workpaper developers and others who need to develop and use technical information in energy efficiency. Thus, Cal TF's impacts on the workpaper development process will at best be limited if its role is limited to improving workpaper quality.

Margie Gardner—I would add that the technical solution is required but not sufficient.

Dan Rendler—Since the technical solution is a crucial component of success, we need to make sure to keep the technical people we have already recruited engaged throughout the process.

Hanna Grene—Continuing to keep those technical people engaged will eventually help in educating the industry and “bringing it along” towards the new paradigm.

Annette Beitel—Several TF members have indicated that their primary interest in volunteering their time to the Cal TF – a significant amount of time for the many very experienced, senior and highly qualified technical professionals who have engaged in the Cal TF – is to be part of making significant and meaningful change to fix the many technical challenges and difficulties they have experienced in California over several years. TF members believe the current framework impedes the efficiency industry. In the words of one TF member, they don't want to be a “band aid” for the utility workpaper process. Currently, there is tremendous engagement, participation, and appetite for change in the TF. If the Cal TF 2016 Business Plan does not include as a task a meaningful plan for change, I am concerned we will lose the engagement, if not participation, of many TF Members.

2015 Business Plan

Annette Beitel—The core substantive elements of the 2015 Business Plan are continuing to review new, statewide measures and developing select technical position papers that relate to workpaper development and review. As a reminder, in 2014, the Cal TF work was more limited in scope – launching the organization and reviewing a select number of statewide workpapers (five). Through conversations with CPUC staff and the PAC, Cal TF's 2015 Business Plan work



was expanded to include subcommittee work developing technical position papers. To date, in 2015, Cal TF has completed review of five new workpapers, and is in process of reviewing 11 others, some of which will be completed by year's end. Subcommittee work is underway to complete three technical position papers related to developing substantive guidelines for measure development and identifying and characterizing a few "below code" measure savings opportunities that could lead to the development of a measure workpaper that counts "below code" savings. Other subcommittees are underway to review select POU measures and seek to document equivalent DEER measures, which don't have workpapers. The "Ex Ante Alternative" subcommittee emerged in part from the difficulties encountered in trying to find documentation for select DEER measures. A completed subcommittee provided more detailed guidance to the workpaper developer of the Residential Quality Installation measure.

Of all the work we are doing this year, we see the "Ex Ante Alternative" subcommittee to be by far the most important. This initiative is designed to identify and fix the process, structure, and content issues inherent in the current measure development and review system. Also, tomorrow we have convened an all-day "Ex Ante Subcommittee" meeting to get the subcommittee's feedback on the analysis of issues, best practices research and conclusions, and proposed outcome and high-level implementation plan. Despite the fact that tomorrow is a Friday before a long weekend, we have had a tremendous response rate – over twenty people from all over the country are participating, in person, including staff from the Department of Energy and several national labs. This analysis and work has engaged and is energizing TF members and the broader community of energy efficiency professionals. We see the outcome of this initiative as forming the core work of the 2016 Cal TF Business Plan.

Dan Rendler—Is this meeting tomorrow open to anyone who wants to attend?

Annette Beitel—Yes. We have encouraged broad participation in this "ex ante alternative" initiative.

Jan Berman—The 2016 Business Plan recommendations seem to add meaning to the work of the individual TF members; TF members would begin to have a much more significant impact on the overall portfolios.

Upcoming October PAC Meeting

Steve Galanter—Earlier this year, SCE identified four key areas that the IOU's could work on to improve our working relationship with CPUC staff: clarity, timeliness, best available data, and DEER. I believe that making improvements in any of those areas would be hugely valuable, and I would like to update this group on our progress in those areas when we meet in October.



Annette Beitel – Thank you, Steve, for mentioning to the group SCE’s work on seeking to improve the current process. We will make time for your presentation in the October PAC.

ACT: Allocate time during October meeting for Steve Galanter to report on SCE initiatives with CPUC staff to improve the current ex ante process.

IV. Ex Ante Alternatives

Annette Beitel, Cal TF Facilitator—

Three Power Point Presentations

Ex Ante Alternatives: Status Quo

Dan Rendler—I’m glad you included the State policy goals in these slides, because it really seems like there is a growing divergence between those and regulatory directives. There is no feasible way that we will ever achieve the Governor’s goals under the current implementation constraints.

Ex Ante Alternatives: TRM Best Practices

Mike Campbell—By “effective political process” do you mean a case in which official actions are taken by appointed decision makers?

Annette Beitel—Yes. In most jurisdictions regulatory staff participates in the collaborative process, but only Commissions make the ultimate decisions.

Donald Gilligan—Another key point there is the schedule. It is crucial for industry to be able to rely on a predictable technical update process.

Mike Campbell—The key for such collaboration is trust. You can’t have that kind of process without a requisite amount of trust.

Annette Beitel—I think that most jurisdictions have a healthy skepticism and debate between regulators and the regulated entities. Once you get all parties in the room with discussion focused on technical issues and the merits of various positions you can get beyond the ad hominem debate that has derailed the California process so often.



Dan Rendler – The operative phrase here is “healthy skepticism and debate.” Is that really what we have in California?

Annette Beitel – To be more pointed, other jurisdictions I have worked in have an environment that at times is overtly hostile and aggressive, particularly early in the collaborative process. In these jurisdictions, stakeholders, utilities, and regulators often have an innate distrust of the others. However, direct, face-to-face communication, collaboration and dialogue that focuses on issues and the merits, and support for different positions have been very effective in narrowing and resolving issues.

Mike Campbell – Do these other states have shareholder incentives? I believe that is the root of distrust here.

Annette Beitel – No, but it is the focus on discussing issues and the merits of various positions through an effective and public collaborative process that produces positive outcomes,

Margie Gardener—I think the trust-building value of such collaborative work in other jurisdictions has been significant.

Annette Beitel—I have seen that be the case in other jurisdictions that have decades of historic toxic relationships and have not seen a reason strong enough to convince me that California will be any different. Also, in the last few months individual Energy Division staff members have been engaging more with Cal TF. We believe they too have realized the value of the collaboration and will continue to grow their involvement.

Mike Campbell—I still wonder if the shareholder incentive will be an insurmountable obstacle to creating that trust.

Jan Berman—The Northeast states have shareholder incentives and they have managed to create successful collaborative processes.

Hanna Grene—That was also the case in the initially toxic environment of the District of Columbia.

Ex Ante Alternatives: Path Forward

Dan Rendler—Have we ever attempted to bring in measures information from other jurisdictions?



Annette Beitel—We did. We used that approach in reviewing the POU TRM and DEER documentation and also brought in research from other jurisdictions in our discussions about SDG&E’s two Advanced Power Strips measures.

Dan Rendler—So the Recommended Implementation Process slide is saying that this whole conversation about replacing or not replacing DEER is really about 17 measures?

Steve Galanter—Those 17 measures and others yield hundreds of thousands of lines of data for individual measure permutations.

Jan Berman—The idea of a measure permutation has always bothered me, because it makes it really hard to determine how many measures are actually offered in California.

Dan Rendler—I see in your spreadsheet that there are some measures that are documented in IOU workpapers, DEER, *and* the POU TRM. Is that true?

Annette Beitel—Yes, the utilities have developed some workpapers to expand on DEER measures so there is significant overlap between some of the measures we have identified – they exist in DEER, non-DEER (utility) workpapers and the POU TRM.

Margie Gardner—So, EnergyPlus would be just one of the tools used to populate the electronic TRM.

Annette Beitel—Yes. Not all measures need to be modeled. In fact, many jurisdictions rely on engineering equations for large portions of their measures rather than modeling.

Hanna Grene—Is the thinking that the initial electronic TRM would be the plausible first step in implementing a holistic solution?

Annette Beitel—The “California Electronic TRM” would be an end product of the process. However, the “Ex Ante Alternative” initiative needs to address all three key aspects of the framework: structure, content, and process.

Jan Berman—Is your feeling that the POUs would be able to start using the estimates from the IOU WPs without seeing significant shifts in savings estimates?



Annette Beitel—I would say yes for many of the measures because a significant number of the POU TRM measure parameters are lifted from DEER and IOU workpapers. However, the POU TRM measures are organized in workpaper format, so it is much easier to figure out what measure parameters are associated with each measure, and the individual measure parameters are much better documented compared to DEER. That is not to say that some select measures would be more likely to see some change in energy savings as a result of the move to a new modeling tool.

Jan Berman—I suggest you add a step to double check that a measure is still being offered before you create a workpaper to support it. Because I believe many DEER measures exist solely as support for individual parameters now in IOU workpapers. There is no reason to invest resources in documenting measures that are essentially defunct.

Annette Beitel—That is a great point. We have heard that DEER does not have a systematic process for identifying which measures are no longer used and removing them. We'll have to add this to the process.

- ACT: Add a step to the “Ex Ante Alternative” implementation plan to ensure that a measure is still being offered before a workpaper is developed.

Hanna Grene—What is your projected timeline for the project?

Annette Beitel—We believe the full alternative can be implemented in two years. That time frame will give the collaborative enough time to be thorough yet timely.

Margie Gardner—Which brings up the fact that you may need to get acceptance of an electronic TRM, and/or one particular tool, before starting the work. Who are the applicable decision makers here? Is this a CPUC staff decision or is a ruling needed?

Steve Galanter—I think the first step is to get buy in at the staff level and then we would probably need authorization for the budget expenditures.

VI. Closing

Annette Beitel—In this meeting we were not able to cover the agenda item related to an issue raised in the last PAC meeting: What is the role of the PAC in reviewing technical information? Alejandra reached out to the NW RTF to find out whether its PAC reviews and comments on technical information. The answer is



that they do not. Alejandra drafted language for the Operations Manual for PAC review and affirmation. This item will be added to the October agenda, along with the item that Steve Galanter identified earlier in today's meeting.

Originally, we had a PAC meeting scheduled for early October. We will be moving this meeting to late October. Alejandra will send a Doodle poll to find an alternate meeting date for late October. We will seek to have the meeting outside San Francisco so that the same PAC members don't always have to travel.

Post Meeting Discussion

Jan Berman facilitated a short PAC discussion after Cal TF staff left the room. Due to sound quality issues, PAC members conferencing in to this portion of the meeting were not able to follow or contribute to the discussion.

Cal TF staff action items from the discussion:

- Send PAC members meeting materials via e-mail
 - Staff Response: For this PAC meeting, as with other PAC meetings, meeting materials are posted on the Cal TF website (www.CalTF.org). Alejandra sent a link to the materials when she sent the agenda.
- Provide Business Plan report-out in form used for the end-of-year 2014 Business Plan report-out.
 - Staff Response: We will use this format in future PAC meetings
- Provide budget for draft 2016 Business Plan