

California Technical Forum (Cal TF):

A New Collaborative for Developing Savings Estimates for California

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ABSTRACT

The California Technical Forum (Cal TF) is a new collaborative of technical experts who use independent professional judgment and a transparent, technically rigorous process to review energy savings and other technical information related to California's energy efficiency portfolios. The process, modeled on the highly successful and well-regarded Northwest Regional Technical Forum, includes three entities: A Policy Advisory Committee (PAC), the Technical Forum (TF), and a Chair/Administrator. The PAC, which includes investor-owned utilities (IOUs), public utilities (municipal utilities, community choice aggregators, etc.), program implementers, regulators, and other interested stakeholders (environmental and ratepayer advocates) prioritizes the work to be done based on statewide need. The TF, a group of up to thirty independent experts representing a fair balance of technical expertise, customer sector and technology focus, and institutional experience, reviews and votes on technical issues. The Chair/Administrator ensures the process is efficient, collaborative, and runs according to adopted technical and organizational guidelines.

Introduction and Overview

California has a long history and has spent considerable resources developing *ex ante* savings estimates and other energy efficiency measure parameters (such as incremental measure cost (IMCs), expected useful lives (EUL) and net-to-gross ratios) used to calculate cost-effectiveness for energy-efficiency measures. The repository for the majority of this data about energy efficiency measures is known as DEER (Database for Energy Efficiency Resources).¹ Despite its long history and widespread use, in recent years the DEER update process has been delayed, and the values in DEER have been contentious and difficult for California stakeholders to understand and use.

This paper describes a new collaborative, called the California Technical Forum (Cal TF) that will be used to develop and peer review energy efficiency measure parameters through an independent, unbiased, collaborative process that will lead to technically rigorous, transparent, peer-reviewed *ex ante* measure values. The Cal TF is modeled on the highly successful and well-regarded Northwest Regional Technical Forum (NW RTF).

This paper provides a short overview of historic and current practices for developing *ex ante* measure parameters in California. It then describes the development and structure of the Cal TF. Finally, it will describe how the Cal TF will produce technically rigorous, unbiased, peer-reviewed, transparent statewide consistent measure values.

¹ California's Database for Energy Efficiency Resources (DEER) is the state's depository for ex-ante saving estimates and therefore the preeminent tool for energy efficiency portfolio planning and management.

History and Current Practices for Developing Energy Efficiency Measures Parameters in California

Started in the early 1990s at the direction of the California Energy Commission (“CEC”) DEER began as a series of downloadable data sets or transferable files on movable drives and has evolved into an online database providing a common set of *ex ante* savings values.

The CEC and the California Conservation Inventory Group (CCIG)

The CEC, as the agency charged with collecting statewide data to support energy efficiency planning and forecasting, delegated its responsibility for developing energy efficiency measure parameters to a broad stakeholder coalition by creating the California Conservation Inventory Group (CCIG)² in 1990. The development of a consistent dataset was one of the key tasks that emerged from the CCIG. The CCIG was tasked with identifying what type of data on energy efficiency measures should be collected and how that data should be used to develop energy savings estimates. The initial CCIG dataset became the framework for DEER. As CCIG fulfilled its assigned role, responsibility for the upkeep and updating of the datasets transitioned to the newly formed California Demand Side Management Measurement Advisory Council (CADMAC).

CADMAC

Once the utilities, regulators, and stakeholders who participated in CCIG understood that California needed common planning assumptions and methods for evaluating savings given California’s increased reliance on energy efficiency as a resource, they came together in a new organization to begin addressing this need. In January of 1993, CADMAC began to conduct statewide measurement studies, host open discussions about methods and data, and update DEER. This work, paid for with investor-owned utility (IOU) evaluation, measurement and verification (EM&V) funds, created a common knowledge base from which all parties could draw to inform technical discussions. The California Public Utilities Commission (CPUC) has referred positively to the resulting years of cooperation between utilities, stakeholders, and regulators as the “Collaborative Era” (CPUC 2005, 23).

CBEE

In 1996, the Electric Utility Restructuring Act delegated to the CPUC the responsibility of overseeing the expenditure of the non-bypassable Public Good Charges (PGC) collected from ratepayers to fund energy efficiency programs. The CPUC then created the California Board for Energy Efficiency (CBEE), using PGC funds, as an independent policy board to oversee the implementation of an independent administrator, development of energy efficiency programs and other matters related to the energy efficiency portfolio (CPUC 2005, 29). CEC staff was directed to develop a proposal for CBEE to consider for updating values in DEER. The proposal included funding on a continuous basis for DEER. The CBEE Board approved the proposal and the CEC began to update DEER for 2001 (Itron and Hirsh & Associates 2005). However, in 2000, the CBEE ceased to operate due to several factors, including questions about whether the CBEE

² CCIG members were composed of CEC, the CPUC, IOUs, NRDC, LBNL, and the CA Institute for EE (“CIEE”).

violated state labor agreements by assigning state functions to non-civil servants and constituted an improper delegation of regulatory authority to an advisory board by the CPUC. Oversight over developing *ex ante* values was then given by the CPUC and CBEE to the IOUs and the new California Measurement Advisory Council (Calmac), with CPUC participating as an independent observer (CPUC 2005, 39).

Calmac and the IOUs

Calmac was formed by the IOUs and members of CADMAC as a forum to continue cooperative work on *ex ante* measure parameters and EM&V. The new organization ceased to work on all demand side management activities and focused only on energy efficiency, but otherwise retained most of the previous collaboratives' protocols and functions. The 2004-05 update of DEER was guided by Calmac. Throughout these years, as it became increasingly clear that DEER would be the preeminent tool for energy efficiency portfolio planning and management, CPUC staff interest and involvement in the update process grew (Itron and Hirsh & Associates 2005).

CPUC Energy Division

In 2005, the Commission initiated a rulemaking (D.05-01-055) to define the administrative structure of ratepayer-funded energy efficiency. This rulemaking eventually split the roles of program administrator and program evaluator and assigned the former to the IOUs and the latter to its Energy Division staff. The Commission also directed the Energy Division to update DEER as part of research and analysis in support of staff's new evaluation policy oversight roles (CPUC 2005, 129); Energy Division took over oversight of the DEER beginning in program years 2006-08. The CPUC also began hosting DEER on its own website.

Summary: History of Developing *Ex Ante* Values in California

During the first 15 years of DEER, energy savings values were developed through a public, collaborative, transparent process. Starting with the 2006-2008 program cycle, energy efficiency measure parameters have not been developed through an open public process that allows for effective peer review. Unfortunately, the process for developing DEER values that has evolved out of the D.05-01-055 administrative system has become overly complex, and the underlying methodologies difficult for many industry participants to understand and utilize correctly.³ Partly as a result of this complexity and the lack of effective stakeholder input, the current system lacks transparency and support. Furthermore, despite the best efforts of the utilities and CPUC staff, it has been difficult for these parties to collaborate effectively and in a timely manner during the workpaper development process. This in turn has led to delays, frustration on both sides, and wasted resources.

The controversy and disagreements that have arisen over the values in DEER prompted stakeholders in California to seek another model for developing energy-efficiency measure parameters in California, as described below.

³ D.05-01-055 redefined the administrative structure of energy efficiency programs in California after the electricity crisis.

Development of the Cal TF Model

Modeled on Northwest Regional Technical Forum

The California Technical Forum is modeled on the highly successful and well-regarded Northwest Regional Technical Forum (NW RTF) model that develops consistent energy savings parameters that are used and accepted by over 160+ utilities in the Pacific Northwestern states (Washington, Oregon, Montana, and Idaho). The NW RTF, has several attractive features that could enhance the development of measure parameters in California, including:

- Explicit, agreed-upon, consistent guidelines for determining energy savings and other measure parameters
- Timely and credible savings values and other measure parameters
- Technically rigorous and well-documented values
- Transparency regarding how values were developed
- Effective peer review
- Accessible and convenient database of measure savings estimates and other parameter values.

History and Structure of NW RTF

In 1996, Congress charged Bonneville Power Administration and the Northwest Power Planning Council to establish and administer the Regional Technical Forum to develop energy efficiency measure parameters for consideration and use by the over 160 utilities, including investor-owned and publically-owned utilities, in the four Northwestern states. To engage in meaningful integrated resource planning, consistent values needed to be developed and adopted across the planning region.

The NW RTF has three entities: the RTF Policy Advisory Committee (PAC), the RTF members, and the RTF Administrator, each with key responsibilities. The NW RTF PAC is largely comprised of the RTF funders and directs the RTF work. The RTF members are thirty (30) technical experts, largely un-paid volunteers, that guide, peer-review, and then ultimately approve the RTF work product, including measure parameters, templates/forms, and guidelines. The RTF Administrator works collaboratively with RTF members to seek input and guidance as the work product is developed and ensures that completed RTF work products are consistent with RTF member-adopted guidelines. The RTF Administrator staff includes a Chair, technical staff (approximately 7 full-time equivalents) and administrative and managerial staff (approximately 3 full-time equivalents). The RTF work is funded by utilities with in kind support from the Northwest Power Planning Council.

NW RTF Process for Reviewing Measure Parameters

The RTF Administrator develops draft work papers containing measure level parameters, often through close collaboration with the RTF subcommittees that include RTF members, RTF corresponding members who may be appointed by the RTF Chair for project-specific work to provide input, and a member of the RTF Staff. The RTF members review measure workpapers and supporting materials. When a workpaper is discussed at the monthly Regional Technical Forum meetings, all stakeholders, not just RTF Members, may publically comment on the workpaper to enhance the quality of the proposals. All deliberations are public, well documented in one easy to use website, and consistent with RTF member-adopted guidelines.

RTF members vote on and endorse use of workpaper results to avoid future issues around savings estimates and other measure parameters. A super-majority of the RTF members is required for RTF approval (60%), with a 40% quorum.

Socializing the NW RTF Model to California Stakeholders

The Cal TF structure, modeled closely on the NW RTF, was discussed with key California stakeholders active in the policy development, regulation, administration and implementation of energy efficiency in California. The stakeholders who were consulted for input, suggestions, and requested participation on the Cal TF Policy Advisory Committee to guide the Cal TF structure, operation and work included the regulators; the system operator; public utilities and public utility associations; program implementer representatives; Community Choice Aggregators (CCAs), Regional Energy Networks (RENs), and local government representatives; and the investor-owned utilities (IOUs) and ratepayer advocates.⁴

During meetings with potential Cal TF PAC members, potential PAC members recommended changes to the Cal TF structure and operation. Several recommended considering the structure and operation of other energy efficiency collaboratives both inside and outside of California to see if the model could be further enhanced prior to its launch. Potential PAC participants also considered the following issues related to the Cal TF model:

- Whether the Cal TF decisions should be binding or merely advisory
- Whether the Cal TF should be organized as a non-profit
- Modifying the decision-making process from voting to consensus decision-making
- Strengthened conflicts-of-interests policies to ensure unbiased results
- The viability of relying on continuous peer review from unpaid TF members – does peer review add value or merely more time, cost and effort in developing rigorous energy savings estimates?

To respond to stakeholder requests for information and adaptations to the NW RTF model, the history, organizational structures, and best practices/lessons learned of fourteen energy efficiency and peer review collaboratives were analyzed.⁵ Findings on each of the issues, and how the findings are being used to adapt the Cal TF model, are described below:

⁴ Full list of members include: The CPUC and CEC, the California Independent System Operator (CAISO), Los Angeles Department of Water and Power (LADWP), Sacramento Municipal Utility District (SMUD), California Municipal Utilities Association (CMUA), Northern California Power Agency (NCPA), Southern California Public Power Authority (SCPPA), California Energy Efficiency Industry Council, National Association of Energy Service Companies (NAESCO), Division of Ratepayer Advocates (DRA), and The Utility Reform Network (TURN).

⁵ The following energy efficiency-related collaboratives were researched by reviewing organizational documents, websites, and interviewing leaders and participants in each process: California DSM Measurement Advisory Council (CADMAC); The International Performance Measurement and Verification Protocol (IPMVP) and the Efficiency Valuation Organization (EVO); California Board for Energy Efficiency (CBEE); California Measurement Advisory Council (Calmac); Low Income Advisory Group, or Low Income Oversight Board (LIOB); The IOU's Energy Efficiency Program Advisory Groups (PAGs); The PAGs' Peer Review Groups (PRGs); California Renewable Energy Transmission Initiative (RETI); CEC's Demand Analysis Working Group (DAWG); The Uniform Methods Project (UMP); The current EE Program Coordination Groups (PCGs); ASHRAE; The International Code Council (ICC); United States Green Building Council's (USGBC) LEED (Leadership in Energy & Environment Design) Rating System.

Advisory versus Decision-Making

Only one of the organizations analyzed, the CBEE, had a clear decision-making role. The remaining 13 organizations were only advisory, and advised on a variety of matters including policy, programs, standards, and technical issues. Even those organizations with formal voting and excellent track records of affecting regulation—like the NW RTF, CADMAC, and Calmac—could be overruled by the actual decision makers: NW utilities can choose to ignore or reject RTF values⁶, and the CPUC was free to rule against CADMAC and Calmac filings (A. Besa, Manager, SDG&E, pers. comm., December 18, 2013 and B. Miller, LBNL, pers. comm., January 24, 2014). Similarly, the large standard- and code-setting nonprofits are ultimately advisory to governments who can choose to adopt or not adopt their work products.

It is not hard to understand why advisory rather than decision-making roles are the norm for stakeholder bodies. Stakeholder groups add value to the regulatory process in many ways: They bring together and sift through different opinions and perspectives that may otherwise have been neglected; they can discover and amass new information and data sources; and they have the ability to understand and respond to a broad range of needs. Also, compared to regulatory litigation, which is often the forum through which different views are presented, collaboratives are a significantly more effective way of bridging differences and forging consensus. Yet, while experts and stakeholders can be excellent policy and technical advisors, ultimately, decisions can only be made by democratically selected bodies willing and able to be responsible for those decisions. Those who are accountable for taking actions and achieving results must have final decision-making authority.

Although Cal TF will be advisory, it will not be formally advising the CPUC. Instead, parties regulated by the CPUC will need to bring the work product developed through Cal TF to the CPUC for approval, should they so choose. In California, the creation of advisory bodies to the CPUC is strongly discouraged by both statute and regulatory decisions. Section 854.5 of the Public Utilities Code and CPUC D. 12-05-029 describe hurdles and difficulties in establishing Commission-created or endorsed advisory organizations. Section 854.5 of the Public Utilities Code has strict restrictions against Commission-created “non-state entities.” Furthermore, in D.12-05-029, the Commission itself rejected the formation of a Small Business Advisory Council (CPUC 2012).

Consistent with majority practice of other EE collaboratives, including the NW RTF, the Cal TF will be advisory. Regulated utilities will only be required to seek CPUC approval of values developed by the Cal TF if they choose to incorporate the measures into their portfolios, and California regulators will in no way be bound by Cal TF decisions. However, the goal, as with the NW RTF, is that if a wide range of stakeholders participate in Cal TF’s transparent and robust process, the results will be widely used as an accepted standard. What will prove the value of the Cal TF is the collaborative’s technically rigorous and reliable work, not any formal relationship with the regulators.

Formation as a Non-Profit

Of the 14 organizations studied, only three are 501c3 nonprofits. Only organizations with broad missions and multiple responsibilities that go well beyond stakeholder peer review processes are independent nonprofits. For example, ASHRAE, USGBC, and ICC all engage in research, developing industry publications, and training and certification activities in addition to

⁶ Although regulatory commissions and governing boards may still insist on use of RTF values or require extensive justification to support alternative values.

their roles seeking expert peer review of technical information related to codes and standards that they develop for adoption by others (S. Blanc and G. Brohard, Supervisor and Manager, PG&E, pers. comm., November 21, 2013 and A. Janowski, former Chair, USGBC Illinois, pers. comm., November 27, 2013). The IPMVP protocols were initially developed under the auspices of various government entities—and are thus not counted as nonprofits in this research—and only filed for 501c3 status after expanding their mission to include training, certification, and international work (S. Kromer, Treasurer, EVO Board of Directors, pers. comm., December 10, 2013). Given Cal TF’s initial narrow focus, which will be to develop and provide peer review of measure parameters and other technical information related to the Cal TF, it will not be formed as a non-profit, consistent with the majority practice of other EE collaboratives. However, as Cal TF demonstrates it is achieving its goals and garners widespread participation and acceptance, the issue of forming Cal TF as a non-profit will be revisited.

Consensus Decision-Making versus Voting

Ten out of 14 organizations analyzed make decisions through consensus decision-making.⁷ Originally, the Cal TF proposal was to use the decision-making model that works well in the NW RTF, which includes the requirement of a forty percent quorum, and sixty percent super-majority to approve a technical value or document. However, both CPUC staff and the participating ratepayer advocate (Division of Ratepayer Advocates) strongly disagreed with voting as the decision-making model for Cal TF. Specifically, they expressed concerns that the majority is not always right, and that it is important to ensure that minority perspectives and views not be “drowned out” by the majority.

While formal voting was considered for being more expedient, consensus building offers several advantages that cannot be captured by simple voting. Consensus decision-making allows minority perspectives to truly impact the process by either forging compromises or incorporating formalized minority opinions into final work products. In many of the most successful groups, allowing for comparison exhibits was an option of last resort that was rarely used. This was and is the case with reports produced by the California Renewable Energy Transmission Initiative (RETI) (D. Olsen, Facilitator, RETI, pers. comm., December 13, 2013 and J. Wald, Senior Counselor, NRDC, December 10, 2013) and Demand Analysis Working Group (DAWG) (C. Dickerson, Facilitator, DAWG, pers. comm., December 12, 2013): The possibility of writing a minority opinion served as a useful pressure reliever, but the option was only used a few times. The majority of the time, parties were more willing to negotiate and compromise under the consensus models because they knew they wouldn’t simply be out-voted. These results of consensus-building models are particularly beneficial given that majority opinions are not inherently correct and that minority opinions may actually be more accurate in some cases.

Given the reservations expressed by CPUC staff and ratepayer advocates, Cal TF will initially operate through consensus decision-making. Consensus decision-making operates somewhat differently in different jurisdictions, but it often does not require all parties to agree before the group moves forward, which can lead to process inefficiency. For Cal TF, the facilitator will seek to build agreement whenever possible. However, once issues and positions are discussed, if consensus does not emerge, the facilitator will prepare minority opinion documents to memorialize non-consensus items and capture data and rationale supporting all sides. If Cal TF consensus-decision making is unable to work effectively or efficiently, voting may be instituted. However, even if voting is instituted, non-consensus issues will be captured

⁷ USGBC/LEED, CBEE, CADMAC, and Calmac used formal voting.

and clearly described, both the position and support for the different positions, so that the minority voices and views are memorialized and publicized through the Cal TF website, rather than disregarded.

Conflicts of Interest Policy

A common concern expressed during stakeholder meetings was whether the Cal TF results would be biased if utilities participated as Technical Forum members. In California, utilities get shareholder incentives based on savings achieved from energy efficiency. Thus, California utilities have incentives to seek higher measure-level savings values.

Only one of the organizations studied limited membership and/or participation due to conflicts-of-interest: the utility Peer Review Groups, and they only did so because they allowed participants to access confidential financial bid information (CPUC 2005, 68). The USGBC/LEED asks members to acknowledge any potential conflicts and recuse themselves from any decision-making that could lead to financial benefits.⁸ The remaining stakeholder groups operate under the assumption that every member will start from a position that benefits her own interests, and that maintaining a balanced membership will be enough to force compromises to arrive at a meaningful middle-of-the-road opinion. Per this trend, the original IPMVP process, UMP, and DAWG do not have any formal conflict of interest policies.

The majority of groups deal with varied interests by ensuring a balanced membership. As one interviewee remarked, “the energy efficiency industry isn’t rich enough in resources to be turning people away” (S. Kromer, Treasurer, EVO Board of Directors, pers. comm., December 10, 2013). Furthermore, even parties who have a financial interest in the outcome can correct factual errors and often have valuable information to contribute.

Consistent with the majority practice in other jurisdictions, conflicted parties must disclose their financial interest, but will not be excluded from the Cal TF. Other conflicts rules for Cal TF to avoid biased results include that IOU participants may not be the majority members of the Cal TF. Like the NW RTF, TF members will need to agree to vote based on their best professional judgment rather than their organizational interest.

The Value of Voluntary Peer Review

A few stakeholders questioned whether volunteer peer review would lead to meaningful input. However, all of the peer review organizations analyzed operate on an all-volunteer basis. The USGBC LEED system is governed by unpaid board members. Codes and standards in the US and across the world are based on model codes and standards developed by organizations like ASHRAE and the International Code Council that use volunteer peer reviewers. Volunteer peer reviewers usually do not draft language or manage projects—these roles are performed by paid staff. Instead, they provide review and comment on documents provided to them.

Unpaid peer review is consistent with all organizations studied. Also, peer review by volunteer reviewers is consistently viewed as the highest standard for technical and scholarly work. In the sciences, peer reviewers who receive more than nominal payment for peer review they perform (such as travel expenses) are viewed as providing biased results because review services can be distorted by the views and wishes of those paying for the peer review. Like the NW RTF, Cal TF will operate on a volunteer peer review basis, with nominal payments made to

⁸ Per the USGBC Nevada Board Manual, “A conflict of interest exists where a member of the Board of Directors knowingly benefits directly or indirectly from a decision or action of the USGBC Nevada Chapter Board or its representatives,” (*USGB Nevada Policies & Procedures 2012*, p. 27).

cover expenses such as travel for those members who would not otherwise have the expenses covered through the normal course of their employment.

Cal TF Structure and Initial Work

The structure of the Cal TF will be closely modeled after the NW RTF model, and will include a “Policy Advisory Committee” (PAC) of senior professionals to guide and monitor the Cal TF, the TF Members who are the expert professionals who provide peer review, and a Cal TF administrator.

Cal TF: The Policy Advisory Committee (PAC)

The Cal TF PAC, which includes investor-owned utilities (IOUs), public utilities, program implementers, regulators, and environmental and ratepayer advocates, regulators, and the system operator (CAISO), prioritizes the work to be done based on market need. The PAC will approve the selection of Technical Forum members, develop and document the vision for the future of the organization, review progress, and fund the organization.

Aside from their executive responsibilities, PAC members will represent the views and interests of their organizations and the sectors of the industry they represent: the NRDC will be responsible for voicing the concerns of environmental stakeholders, utilities and implementers will ensure that perspective of program administrators is heard, etc. Such broad representation will enrich the discussions had within the organization as well as increase the percentage of the energy efficiency community that will understand and be able to interact with the decisions of the Cal TF.

Because members will be asked to represent their institutional interests, a balanced PAC membership will be essential to ensure that the organization remains unbiased. Balance is a tool used widely by collaboratives and other technical groups to ensure objectivity. For example, standard setting organizations like ASHRAE and the International Code Council (ICC), where the technical interests and insights of industry professionals are invaluable inputs that can not be sacrificed, rely heavily on balanced committee memberships to help deliver impartial and rigorous work products (ANSI 2010).

Cal TF: Technical Forum

The TF will be composed of up to thirty independent experts representing a balance of technical expertise, sector experience, technology focus, policy experience and institutional experience. The key role of the TF will be to review measure workpapers and vote on technical issues. The TF is the core of the Cal TF model—where unbiased, transparent, technical rigor is achieved through independent peer review. Following the goals of balanced representation already observed in the PAC membership, TF members will involve in-state *and* out-of-state perspectives, implementers and evaluators, POUs and IOUs, and not one sector will be allowed to have a majority vote. TF members will be selected through a competitive bidding process, and must meet threshold levels of technical education and energy efficiency expertise. Also, mirroring the administrative structure of the PAC, the TF will operate under a consensus decision-making model.

TF members will meet once a month to review and comment on efficiency measure parameters. The TF will initially focus on engineering workpaper abstracts, which summarize the

methodologies and data proposed for developing measure-level parameters. Only after the TF approves the abstract is the full workpaper developed. Having the TF approve abstracts prior to development of the full workpaper ensures that workpapers are developed within the appropriate parameters, using the best available data and methods, and any technical disagreements about appropriate methods or data are identified before time and money are invested in developing the workpaper. In addition to reviewing abstracts and workpapers, TF members will also participate in the development and approval of guidelines, forms, and other documents related to measure development.

Peer review of program administrator measures by a well-balanced group of volunteer technical experts is what really distinguishes the Cal TF from the system used in California for most of the last decade. The peer review component—which is also what has made the NW RTF so successful and well regarded—brings much needed transparency to the measure parameter development process. Most importantly, the use of and value placed on volunteer peer review by other prestigious technical organizations evidences that peer review will enhance the accuracy of savings values. In fact, technical standards in the US and around the world are set by not only volunteer, but dues-paying peer reviewing members of ASHRAE and the ICC: All but seven state governments have mandated a version of ASHRAE's 90.1 standard for minimum energy efficiency in commercial buildings (DOE, 2014); The ICC's International Building Code (IBC) is in use at the state or municipal level in every US state and territory and the International Residential Code (IRC) is in use in 49 states; Currently, California state law mandates the 2009 versions of the IBC, IRC, IFC, and the International Existing Building Code; Three California counties, one fire district, and two cities have adopted the International Urban-Wildland Interface Code (ICC 2014).

Not only will the volunteer TF members contribute to the Cal TF, the Cal TF itself offers an important value proposition for EE technical experts considering participating in the group. TF members will learn about and help analyze new EE measures and have the opportunity to recommend those same innovative measures for consideration in California program portfolios. The TF will also serve as a regular forum for members to meaningfully engage with fellow technical experts with a broad range of skills, experiences, and perspectives. Lastly, TF members will help shape the future work scope and direction of the Cal TF, and thus contribute to a new national model for the development of ex-ante values.

Unlike PAC delegates, TF members will be asked to represent their best professional judgment—not their institutional interests—in their Cal TF work. Whereas the PAC is tasked with informing the organization and providing broad policy leadership, TF members will be reviewing technical information that needs to be impartial. For this same reason the conflict of interest policy for TF members was carefully crafted so as to keep the organization unbiased without sacrificing valuable input from industry and other involved parties.

The TF Chair/Administrator

In terms of ensuring a timely and effective organization, the research showed that no single factor is a more positive indicator of a successful collaboration than strong leadership. For instance, according to the people responsible for the project, the initial IPMVPs would not have been drafted in a timely fashion had it not been for Cary Bullock's organic leadership (S. Kromer, Treasurer, EVO Board of Directors, pers. comm., December 10, 2013). Likewise, NRDC's Ralph Cavanagh is widely credited for being the driving force behind CADMAC's creation and the subsequent rebound of energy efficiency in California in the 1990s (B. Miller,

LBNL, pers. comm., January 24, 2014). Dave Olsen and Rich Ferguson’s facilitation of RETI was similarly instrumental to the remarkable success of the technical initiative (J. Wald, Senior Counselor, NRDC, December 10, 2013).

For this reason, the Cal TF has created threshold requirements to ensure strong, experienced leadership. The Cal TF Administrator will have at least 10 years of EE experience, experience leading EE collaboratives, a graduate technical degree, and experience developing EE savings value documents. These requirements will guarantee that the Cal TF Administrator will be a respected and trusted EE professional, able to drive the collaborative through productive discussions and to consensus decisions, and technically proficient enough to be a critical communicator of the data and values to be discussed and reviewed by the forum.

With the support of a small technical and policy staff, the TF Administrator will be responsible for overseeing the development and review of workpapers and ensuring that the process proceeds according to pre-established timelines. This will involve collaborating with the various parties—the entities developing the workpapers and regulatory staff in particular—to make sure all are satisfied with the end product. The Administrator and staff will also work with TF members and program administrators and implementers to develop guidelines, templates, and other forms to ease new measure development. Staff will also develop a searchable website to memorialize the work of the collaborative. In addition to these responsibilities, the Administrator will draft organizational documents for PAC review (e.g. Cal TF Charter, Bylaws, Business Plan, and Budget) and work with PAC and TF members to develop a document that formalizes the future vision for the collaborative.

The Future of the Cal TF

The initial term of the Cal TF will be one year. This first year will be treated as a proof-of-concept term with a more limited scope of work, focusing on new measure workpapers. Possible areas of expansion for future terms include review of public utility and non-utility workpapers, facilitating future DEER updates, and developing guidelines and forms to foster efficiency and clarity in development and usability of measure parameters and other technical information needed to support the Cal TF.

Cal TF: Poised For Success

The Cal TF is poised to achieve many objectives that California stakeholders have for measure parameters and other technical information supporting the large and diverse California energy efficiency and integrated demand-side management portfolio, including: technical rigor, consistent statewide values, independence, transparency, collaboration, effective peer review, timely results, cost-efficient, and a greater opportunity for regional and national collaboration.

- **Technical Rigor:** Technical rigor will result from seeking input from a broad and diverse group of stakeholders. Given the breadth and complexity of California’s portfolio, no one individual or consulting group has the technical knowledge or information needed to achieve the Commission’s objectives of using the “best available data” (CPUC 2010). As a 2005 CPUC-commissioned report observed:

“[R]eaching out to broader groups of experts and DEER users” for open discussion of technical matters yields two distinct benefits that are important to the DEER development process: “First, these individuals and entities may have knowledge of technical information about which the DEER Committee and contractor are unaware.

Second, reaching out to other experts and DEER users helps to increase the understanding and usefulness of DEER” (Itron and Hirsh & Associates).

- Consistent Statewide Values: Consistent statewide values will result from participation by all key California stakeholders, including the IOUs, POU's and their respective regulatory bodies (the CPUC and CEC).
- Independence: TF Members will pledge to provide input based on their best professional judgment, as in the NW RTF, and not their organizational interest. Furthermore, participation on the TF by IOUs that receive shareholder incentives based in part on the magnitude of the savings will be limited to less than a simple majority, and TF members will be selected to represent a broad range of technical abilities and backgrounds.
- Transparency: All TF meetings will be open to the public, and will be recorded and placed on the Cal TF website. Majority and minority opinions will be documented and posted where consensus is not reached. Finally, all TF-approved values will be linked to the data and methods supporting those values.
- Collaboration and Effective Peer Review: Collaboration will be fostered through participation on the PAC of a broad range of interests representing all key stakeholders in California. Technical forum members will be selected to ensure a balanced representation of experts with relevant experience and training in a broad range of disciplines needed to effectively develop and review technical information for California's EE and IDSM portfolios
- Timely Results: Timely results will be sought by having clear templates, guidelines and checklists for the quality and type of data needed to support and seek TF review of measure parameters. Metrics will be established to track whether the Cal TF process is more timely than the existing process for measure work paper review in California.
- Cost-Efficient: Cost-efficiencies will be sought through pooling resources to develop common statewide values, in contrast to the current practice where values are not developed statewide in a consistent way.
- Greater Opportunity for Regional and National Collaboration: Through modeling and adopting successful approaches and practices from other jurisdictions, particularly the NW RTF, the Cal TF will seek to leverage knowledge, best available data and practices from other jurisdictions through regional and national collaboration.

Conclusion

The California Technical Forum is an exciting, new opportunity for California. It is designed for success – closely modeled on the established, well-regarded NW RTF process that yields technical values and information that are accepted in four Northwestern states. The NW RTF model has been adapted based on California stakeholder requests, and the adaptations have been validated through extensive review of collaboratives within and outside of California. In many ways the Cal TF is a return to an earlier model used to develop technical information in California that produced less controversy and more transparent technical values; in other ways, the new collaborative builds on new models and the experience of the last few years to continue strengthening California's *ex ante* review process.

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