CALIFORNIA
TECHNICAL FORUM

Memorandum

To: Various Cal TF Interested Stakeholders

Re: Energy Efficiency Stakeholder Group Research Appendices

From: Alejandra Mejia, Cal TF

Date: May 1, 2014

Appendix 1: In-Depth Organizational Findings

Program Advisory Groups (PAGs)

Key Takeaways for the Cal TF	The PAGs provided advisory comments on the IOU's EE portfolios. By Commission design, there were no formal voting rules and no parties were prevented from participating due to conflicts of interest. The chief criticism of PAGs was that the IOUs weren't responsive enough and that the groups at times devolved into "dog and pony shows" where utilities presented information, but were not interested in feedback or modifying their approaches based on stakeholder feedback. There was no set membership. The PAGs were hosted and facilitated by the utilities; they were not nonprofit entities.
Why was it formed?	After the energy crisis, the CPUC and legislature were weary of any third party involvement (p.6 of D.05-01-055 and D.04-01-050). Advisory groups were intended to safeguard against bias as the CPUC returned program selection and management roles to the IOUs by 1) promoting transparency, 2) being a forum for technical discussions, 3) encouraging collaboration, and 4) creating a venue for public input (D.05-01-055 p. 97). PAGs were territory specific, but were also encouraged to consider statewide issues (p. 99).
How was it formed?	D.05-01-055, Interim Opinion in R01-08-028, returns Program Choice and Portfolio Management responsibilities to the IOUs and adopts advisory groups as one of several safeguards (p. 10) against IOU bias.
Who participated and on what basis?	ED and ORA were ex officio members and CEC staff was invited to participate under the same status. Other members were selected by the IOUs; parties that had been eligible for intervener compensation under R01-08-028 were also allowed to seek compensation for PAG membership work (p.101).
Corporate form	Commission provided "general guidance and expectations" for PAG structure but purposefully left a lot of room for creative implementation by each IOU (p. 97). Participation was voluntary and there were not to be any formal voting rules or designations of voting and non-voting members. No parties were conflicted out of participating (p. 101). Hosted and facilitated by the IOUs and compensated by the Commission.
How long did it last?	In D.07-10-032, the Commission adopted a new strategic planning process for portfolio development for 2009-2011. Because the new process was expected to subsume the roles of the PAGs, and given the negative opinions on the entire PAG process, the Commission eliminated them (p.105). However, the latest Energy Efficiency Policy Manual states

	that IOUs are still encouraged to use PAGs (p.41); SDG&E is the only utility that currently maintains an active PAG.
What did it do?	The PAG's provided advisory comments on the IOU's EE portfolios.
Why did it disband?	Most participants were unhappy with how the meetings were moderated, and felt that the PAGs were a venue for them to react to already-formed IOU plans rather than provide meaningful input that resulted in change. A Commission-hired consultant found a fundamental "mismatch between what services the non-IOU members of the PAGs expected to provide... and the expectations of the IOUs in terms of what they needed from the PAG members" (TecMarket, p. 4).
Pitfalls to Avoid	The lack of official voting rules contributed to frustration within stakeholders; it is vital to have mechanisms for memorializing stakeholder input.
Characteristics to Recreate	The PAGs were most successful at "increasing public participation in the portfolio building process;" however, the independent consultant that evaluated the groups had difficulty discerning the benefits of that public participation (TecMarket p.5).

Peer Review Groups (PRGs)

Key Takeaways for the Cal TF	The PRGs produced independent reviews of third party implementer bids for program RFPs that were put out by the IOUs and ultimately filed as part of the IOU portfolios. There were no formal voting rules. Due to the confidential subject matter, financially interested parties could not participate. Membership was set and meetings were closed. Reports had to be finalized by the IOU filing deadline. The PRGs were hosted and facilitated by the utilities; they were not nonprofit entities.
Why was it formed?	To review the IOUs' plans for competitive bidding out of at least 20% of the portfolio, help develop bid evaluation criteria, and ensure the fair and transparent use of the criteria in a review of third the party program selection process (D0501005, p. 105).
How was it formed?	D.05-01-055 established PRGs as a non-financially interested expert subset of the PAG members (p. 103). The interim order mandated that 20% of each IOU's EE portfolio be supplied by competitive bids. The PRGs were to focus largely on this process.

Who participated and on what basis?	A sub-group of non-financially interested and EE-expert PAG members, chaired by ED (D.05-01-055 p.103, 105). [For SCE: Devra Bacharach {NRDC}, Peter Lai {ED}, Michael Messenger {CEC}, Cynthia Mitchell {TURN} Christine Tam {ORA} (Joint SCE/SoCalGas PRG Assessment, June 2005, p. 1)]
Corporate form	Hosted by the IOUs.
How long did it last?	As of the July 2013 Energy Efficiency Policy Manual, PRGs are still in use (p. 40).
What did it do?	PRGs provided the IOUs with criteria to be used in their evaluation of the utilities' portfolios and bidding plans. The PRGs then used said criteria to evaluate the IOUs plans. PRGs' reports were submitted to the Commission along with the IOUs' EE fillings (Joint SCE/SoCalGas PRG Assessment, June 2005, p. 3).
Strengths and Weaknesses	The PRGs were particularly helpful with the competitive bidding process; they were less able to meet their "cost effectiveness"-related missions (TecMarket "Program Advisory Group and Peer Review Group Process Evaluation," p.9). There was also a desire for more technical expertise (p.10).
Characteristics to Recreate	The PRGs were a purely advisory body, whose opinions the Commission could completely disregard. This aspect is crucial and should be emphasized for the Cal TF. Writing a hard assessment of the IOU's EE portfolios and submitting it to the Commission prevented the kind of frustration that occurred during the PAG processes because PRG members had a defined vehicle for memorializing their opinions and presenting them to decision-makers.

California Board for Energy Efficiency (CBEE)

Key Takeaways for the Cal TF	The CBEE was faulted for being a delegation of Commission authority. The Commission appointed CBEE members, but never fully fleshed out voting rules or other processes (although CBEE members did take simple majority votes). The CBEE was intended to be an independent nonprofit entity, yet that vision never came to fruition.

Why was it formed?	As part of a vision to privatize EE during the restructuring movement. The CBEE was envisioned as an independent organization that would allocate the limited and temporary funds that would be needed for market transformation [AB 1890 only authorized the PGC from Jan 1998 through Dec 2001]. "After a short transition period, we believe that the funds collected through a surcharge for energy efficiency should be competitively allocated by an independent, nonprofit organization." (D.95-12-063, Public Purpose Programs section) Initially, the Board was given broad powers to affect statewide EE policy. Among those powers was offering performance-based compensation features that included rewards and penalties and proposing to the Commission the future scope of EE programs (D.97-02-014, Section 4.2.1); however, there was little support on the Commission for IOU EE programs at the time.
How was it formed?	D.97-02-014 Section 4.2.1 establishes an Independent Board to "develop and oversee limited term contracts for the administration of market transformation programs." D.97-04-044 appointed the initial members of the Board and further specified administrative details. The Independent Board named itself the CBEE.
Who participated and on what basis?	The Commission determined that the Board would be made up of one member each from the CPUC and the CEC and seven from the public. Members were expected to have expertise in EE, but the Commission preferred that technical expertise be made available through a standing Technical Advisory Committee. The members of the CBEE were: David Gamson [Commissioner Advisor], Michael Messenger [CEC], Peter Miller [NRDC], Sara Steck Myers [CEERT], Mark Thayer [SDSU], Ortensia Lopez [Greenlining Institute], Charles Goldman [LBNL], Michael Shames, [UCAN], and Don Schultz [ORA] (D.97-02-014, Section 3.1). Non-CPUC staff (or members of the Commission) who were appointed to the CBEE were treated as "uncompensated servants of the Commission and State of California within the meaning of Sections 810.2 of the Government Code" (Section 4.2). CBEE members were paid $300 per diem per day of meetings with no remuneration for preparatory work (Section 4.8).
Corporate form	The CBEE was supposed to be a completely independent, nonprofit entity; however, it never incorporated. This could be due to the Board's very short-lived and troubled existence. CBEE meetings were subject to the state's Open Meetings Act (D.97-02-014, Section 4.3).

How long did it last?	In light of ongoing legal conflicts, the Commission extended IOU management of EE programs and, in June of 1999, suspended any further work on handing off responsibility to the CBEE until further notice (Assigned Commissioner's Ruling Regarding Administration of Energy Efficiency and Low-Income Assistance Programs in R98-07-037). The entire process lasted a little over two years, but the CBEE never really got off the ground.
What did it do?	The CBEE was supposed to receive EE money collected by the IOUs through the PGC and use those funds to contract with independent EE program administrators. However, administrative hurdles and legal challenges didn't allow this to continue happening.
Why did it disband?	In August of 1997 (only a few months after the inaugural members were appointed to the CBEE), the California State Employees Association filed a complaint against the CBEE with the State Personnel Board (SPB). At issue was the Commission's authority to create and utilize entities staffed by non-civil servants to perform functions regularly under Commission purview. SPB ruled against the Commission and CBEE; furthermore, the Attorney General and Department of Finance both agreed that ratepayer money could only be held and spent by IOUs. The Commission was thus forced to pursue legislation (AB 2461) to authorize the transfer of PGC money from IOU accounts to the CBEE. AB 2461 was vetoed in September 1998 (D.05-01-055, p.33-36).
Strengths and Weaknesses	From the very beginning, there was little political support for post-restructuring energy efficiency, the CBEE, and its activities. At the time, the Commission was very busy with restructuring work and had very few resources to think through the future of energy efficiency (Bill Miller interview). Divisive decisions on the part of the board only worsened the situation (Peter Miller interview).
Pitfalls to Avoid	The CBEE was widely viewed as attempting to usurp the Commission's authority. This perception should be avoided at all costs. Section 810.2 of the Government Code seems to have only been used for liability purposes, the claims against the CBEE centered around the Commission's ability to delegate its own authority to non-civil servant advisory entities. That is, the conflicts seemed to be more about the contracting tasks being delegated than the legal status of CBEE's "uncompensated servants."
Characteristics to Recreate	The process sometimes matters more than the product—it needs to be open, transparent, and truly collaborative. The collaborative has to really listen to stakeholders and industry and be of service to the markets and its audience. Also, it needs non-polarizing members that are good at building and maintaining support (Peter Miller interview).

Low Income Advisory Group/ Low Income Oversight Board (LIOB)

Key Takeaways for the Cal TF	The LIOB is an Advisory Board to the Commission. No parties are prevented from participating due to conflicts of interest—there are several industry representatives on it. The Board is intended to expose the Commission to issues affecting low-income communities. Membership is set and Bagley-Keene applies. It is not an independent nonprofit.
Why was it formed?	LIOB was established to advise the Commission on issues affecting low-income electric and gas ratepayers and serve as a liaison between the Commission and low-income communities and representatives (SB 2-1).
How was it formed?	The trajectory of the LIOB mirrors that of the CBEE to a certain extent. D.97-04-044 established "a Governing Board to oversee low-income programs, including rate assistance and low-income energy efficiency services" (Section 2.0). The Low Income Advisory Board was created but then the independent administrator processes were halted in 1999. In 2000, SB2 from the Second Extraordinary Session replaced the Low Income Advisory Board with LIOB.
Who participated and on what basis?	Nine members selected and appointed by the Commission: Five knowledgeable representatives of the low-income community [currently IDEATE California, El Concilio of San Mateo County, Suscol Intertribal Council, COALITION for ECONOMIC SURVIVAL, Jason Hobson], one Commissioner or Commissioner designee [Comm. Sandoval], one representative of private weatherization contractors [Patricia Watts], a representative of a gas or electric IOU [Alex Kim, SDG&E], and one from a water utility [Dave Stephenson, American Water Works]. One Member selected by the Governor [Janine Scancarell] and one by the Department of Community Services and Development [Jason Wimbley]. In total, eleven members (LIOB Charter, Article 3). Non-governmental members are classified in the same way as were the members of the CBEE; they are paid $400 per diems (Sections 3.6 and 3.7).
Corporate form	Subject to Open Meetings Act (Charter).
How long did it last?	It is still ongoing.
What did it do?	Exposes the Commission on issues affecting low-income ratepayers.
Strengths and Weaknesses	Although members have great knowledge of the population they represent, the board's work is often slowed down because member’s are not familiar with the regulated electricity industry. The Board exposes the Commission

	to issues they may not come in contact with during the course of their other regular activities (Mary O'Drain interview).
Pitfalls to Avoid	Consider applicability of the Bagley-Keene Act to Cal TF once the structure and composition is finalized.
Characteristics to Recreate	LIOB's emphasized advisory role and targeted focus population have helped it stay alive (when CBEE did not).

Demand Analysis Working Group (DAWG)

Key Takeaways for the Cal TF	The DAWG serves as a working group and forum for discussion and advice to all its members. DAWG does not utilize formal voting, it is a consensus group. No parties are prevented from participating due to conflicts of interest. Working group membership is not set, but there is a core group of regular members, and meetings are noticed and open to the public. The work of the DAWG is tied to IEPR priorities and timelines and more recently became the forum to discuss the technical aspects of the CPUC potential and goals study. The DAWG uses an independent facilitator/project manager. It is not a nonprofit.
Why was it formed?	In the 2007 Integrated Energy Policy Report, the CEC committed itself to review and retool the process through which EE assumptions and expectations are factored into their demand forecasts (p. 6, 74).
How was it formed?	In the spring and summer of 2008, the CEC held workshops and closed meetings to outline a comprehensive work plan for the then-"Demand Forecasting Energy Efficiency Quantification Project." The CPUC agreed that the CEC's Integrated Energy Policy Report proceedings was the appropriate venue for discussions on demand forecasting issues (the CEC states that this was discussed in meetings with CPUC ED); as part of R08-02-007, the Commission directed the IOUs to join the CEC effort
Who participated and on what basis?	CEC, CPUC (including ED, DRA), and CAISO staff; the IOUs and POUs; TURN and NRDC; LBNL, California Institute for Energy and Environment; Precourt Energy Efficiency Center. Staff from the "joint agencies" makes up the Executive Steering Committee (DAWG website, membership list). Truly having the three agencies be part of the group (DAWG is the only form of this collaboration currently in existence) creates a good system of checks and balances—with each of the agencies' unique perspectives and interest acting as a check on the other two (Rick Aslin interview).

Corporate form	According to the DAWG website: "The CEC's Electricity Supply Analysis Division sponsors and hosts the working group with support from Aspen Consulting."
How long did it last?	Ongoing
What did it do?	The CEC's "Conceptual Project Plan for the Demand Forecasting and Energy Efficiency Impact Assessment" (dated 7/25/08) lays out very detailed steps to be taken (with assigned responsibilities and timelines) in order to achive the following three overarching goals: 1) Improving estimated impacts of energy efficiency within the demand forecast and attribution to market forces, and, 2) Creating a new capability to project near-term program impacts and 3) long term impacts. However, tracing discussions of demand forecasting in IEPRs 07-11 does not seem to indicate that all of these goals been met (IEPR '07, p.74, '08 p.44-47, '09 p.53-61, '11 p.110-112). In January of 2013, the State Senate Committee on Energy, Utilities and Communications took the "joint agencies" to task on their forecasting capabilities (CEC, CAISO, and CPUC responded to questions on a letter to Senators Padilla and Fuller dated 02/25/13).
Strengths and Weaknesses	This is a really focused group and currently the only standing CEC/CPUC/CAISO collaboration. The group has no formal conflict resolution policy because it has not found the need for one. When DAWG makes a recommendation, it strives for consensus but presents various opinions if consensus is not reached (Chris Ann Dickerson interview).
Pitfalls to Avoid	The group is very dominated by state agencies. The stakeholders have no real power to contradict what staff wants to do. The process does not provide a real opportunity to negotiate differences. (Aslin interview).
Characteristics to Recreate	The "checks and balances" system created by having the three agencies working together is very useful.

California DSM Measurement Advisory Council (CADMAC)

Key Takeaways for the Cal TF	CADMAC had party status to file with the Commission, but most often it was used as a forum for discussion and parties filed independently. Formal voting was used to grant exemptions from protocols. No parties were prevented from participating due to conflicts of interest. One of the advantages of CADMAC was that it developed a common pool of data and information that all parties had access to. Meetings were open to observers. It was not a stand-alone nonprofit.

Why was it formed?	The Commission established CADMAC just as the EE shared savings mechanism was fully implemented for the 1995-1997 program years. CADMAC was designed as a forum for discussion and independent review of IOU DSM EM&V studies. (D05-01-055, p.26).
How was it formed?	In 1989, once the utilities had been told to stop building or buying generation assets, the Commission decided that energy efficiency would be the next big initiative. Utilities and stakeholders were told to work together and propose an incentive mechanism by January of 1990 (Bill Miller interview). With the advent of the final EE shared savings shareholder incentive, the Commission started CADMAC as an independent/collaborative check on the IOU's EM&V (D05-01-055, p.26). Ralph Cavanagh of the NRDC played a big role in driving the collaborative, although he was not as involved after CADMAC was formalized (Bill Miller interview).
Who participated and on what basis?	The IOUs, ORA, ED, and CEC staff, NRDC, TURN, SMUD, LADWAP, NAESCO, LBNL (D05-01-055, p.26). CADMAC was eligible for intervener compensation.
Corporate form	This was a Commission-created advisory body with official voting rules and guidelines for participation and attendance. Any new members had to be added via an advice letter filing. (D05-01-055, p.26).
How long did it last?	CADMAC only evaluated programs that were filed between 1994 and 1997; however, the last evaluations of these programs were finished in 2007 (http://www.calmac.org/cadmac.asp).
What did it do?	CADMAC, with the help of independent reviewers contracted by ED and paid for by program funds, reviewed the IOUs EM&V assessments of their own programs. These reviews were filed in the Annual Earnings Assessment Proceeding (AEAP) along with the IOUs shared savings mechanism claims (D05-01-055, p.26). CADMAC was also tasked with CEC and DEER-related data collection (Database for Energy Efficiency Resources Update Study, Prepared for Southern California Edison by Itron, Inc. Introduction, 1-2).
Why did it disband?	CALMAC took over EE EM&V during restructuring (Database for Energy Efficiency Resources Update Study, Prepared for Southern California Edison by Itron, Inc. Introduction, 1-4).

Strengths and Weaknesses	The use of independent experts was beneficial to CADMAC's work (Mary O'Drain interview). The group also benefited from a collaborative, convivial atmosphere--it rarely had to file with the commission for conflict resolution (Kevin McKinley interview). Parties hammered out all of the details in private meetings before the documents became public (Bill Miller interview).
Pitfalls to Avoid	Even though the participants all agreed from the beginning that IOU shareholders should be rewarded for EE investments, it eventually became clear that not everybody was comfortable with the same magnitude of IOU rewards (Bill Miller interview).
Characteristics to Recreate	From the beginning, there were three things that all parties agreed on: 1. There needed to be a shareholder compensation mechanism. 2. There wasn't enough EE in the state—everybody wanted to double it. 3. The IOUs should administer the programs. CADMAC members could always go back to these principles to help them work through conflicts (Bill Miller interview).

California Measurement Advisory Council (Calmac)

Key Takeaways for the Cal TF	Calmac operated under the same protocols as CADMAC did. It had party status to file with the Commission, but most often it was used as a forum for discussion and parties filed independently. Formal voting was used to grant exemptions from protocols. No parties were prevented from participating due to conflicts of interest. Meetings were open to observers. It was not a stand-alone nonprofit
Why was it formed?	During the turbulent transition to restructuring, CALMAC assumed the EM&V responsibilities that had previously been under the purview of CADMAC (*Database for Energy Efficiency Resources Update Study*, Prepared for Southern California Edison by Itron, Inc. Introduction, 1-3). The name change reflected the new group's sole focus on energy efficiency (rather than EE and DR as in the past) (Bill Miller interview).
How was it formed?	In 1999, the IOUs, ORA, and the CEC recommended that the Commission establish a forum for discussing and reviewing post-restructuring (1998) market assessments and evaluations. The Commission refused to recognize it as a PUC-sponsored advisory group, but did not object to its activities. (According to D05-01-055, p.39, the Commission did this in D00-05-019).

Who participated and on what basis?	CALMAC's organizational structure was very similar to CADMAC's, minus the use of independent reviewers (D05-01-055, p.39). The membership included the IOUs, ORA, CEC, and NRDC (http://www.calmac.org/calmac-alt.asp).
How long did it last?	CALMAC was most central to the EM&V process during the energy crisis and aftermath years (1998 through roughly 2005). It met less regularly and then on an as needed basis until 2009 (http://www.calmac.org/default.asp).
What did it do?	More or less the same EM&V review as CADMAC had done before, but without the benefit of contractors to undertake independent reviews. It also informally took over CADMAC's data collection responsibilities. (Database for Energy Efficiency Resources Update Study, Prepared for Southern California Edison by Itron, Inc. Introduction, 1-4).
Why did it disband?	The beginning of CALMAC's decline in importance coincides with the advent of PAGs and PRGs. This was also the time period when the Commission began to assign increasing responsibility over EM&V to ED.
Strengths and Weaknesses	The mission wasn't ever clearly defined because at the time the CPUC was beginning to realize its limits on forming advisory boards (Athena Besa interview).
Pitfalls to Avoid	Just as EE shareholder rewards were beginning to grow rapidly, several scandals about misuse of ratepayer funds became public. These incidents helped foment untimely mistrust of the utilities.

International Performance Measurement and Verification Protocol (IPMVP) [National]

	The IPMVPs are made available to anyone who wishes to utilize them, but they are advisory by nature. The original drafting of the IPMVPs did not utilize formal voting. Conflict of interest rules were not used to prevent parties from participating—membership was open to whoever was interested, but committee lists were formalized. The original IPMVPs were completed in time to meet new government procurement requirements. Cary Bullock's leadership was instrumental to keeping the group focused. The IPMVP only moved to a nonprofit body when the organization started expanding its activities.
Key Elements of Success	

Why was it formed?	The founders of the project saw that the market for energy efficiency services was faltering because of uncertainty around EM&V methods. They hoped that standardized EM&V would be more credible and less likely to be denied funding after the fact, and that this would strengthen the EE market. (www.evo-world.org). In addition, new federal laws that allowed greater procurement of energy management services forced action (Steve Kromer interview).
How was it formed?	In 1994, scientists at the US DOE (Greg Kats and Art Rosenfeld) and LBNL (Steve Kromer) initiated an international consensus building effort to standardize terms and robust methodologies for measuring energy and water savings. The work was to be completed within a year (Steve Kromer interview). The first document—the North American Energy Measurement and Verification Protocol (NEMVP)—was published in 1995. (www.evo-world.org).
Who participated and on what basis?	The original version of the protocol (NEMVP) was the result of a sizeable and wide-ranging coalition of volunteer experts that was assembled by DOE (http://www.state.nj.us/dep/aqm/nemvp3.pdf).
Corporate form	Although IPMVP originated from a volunteer effort under the auspices of the Department of Energy, it is now a non-profit corporation called the Efficiency Valuation Organization (www.evo-world.org).
How long did it last?	It is still ongoing in its nonprofit form.
What did it do?	EVO maintains IPMVP in ten different languages as well as an IEEFP that is geared towards EE financing. EVO also offers training and certificate programs for EE EM&V professionals. (www.evo-world.org)
Strengths and Weaknesses	The tight timeline the original group was faced with, and the sense of urgency in the industry, created the ideal pressure for the various actors to actively participate in the process. Furthermore, strong leadership on the part of Cary Bullock kept the discussions balanced and focused (Steve Kromer interview).
Characteristics to Recreate	The coalition that helped draft the original NEMVP included virtually every respected expert in the area.

NREL's Uniform Methods Project (UMP) [National]

Key Elements of Success	UMP's protocols are designed to be advisory to a variety of institutions. UMP was a consensus-based collaborative. No parties were prevented from participating due to conflicts of interest. Advisory group membership was set from the beginning of the collaborative. Unfortunately, the UMP process was delayed and some valuable windows of opportunity for implementation were missed. The UMP is not a nonprofit organization.
Why was it formed?	After the Waxman-Markey environmental bill died in Congress, DOE realized that the energy efficiency industry had not been prepared for a national EERS. (Bill Miller interview). The project intended to amass existing EM&V methods and build consensus around standardized protocols in order to allow better comparisons of savings across states (The Uniform Methods Project: Methods for Determining Energy Efficiency Savings for Specific Measures, The Cadmus Group For NREL, p.1-3).
How was it formed?	The project was commissioned and funded by DOE and managed by NREL. NREL hired The Cadmus Group to manage the drafting of the protocols. (The Uniform Methods Project: Methods for Determining Energy Efficiency Savings for Specific Measures, The Cadmus Group For NREL, p.1-10).
Who participated and on what basis?	On a volunteer basis, regulators, utility managers, policymakers, and ESCO industry groups sat on a steering committee. "Nationally recognized experts on specific energy efficiency measures and technologies drafted each protocol;" draft protocols were reviewed by expert technical advisors and then stakeholders (The Uniform Methods Project: Methods for Determining Energy Efficiency Savings for Specific Measures, The Cadmus Group For NREL, 1-10). All committee members participate on a volunteer basis; experts who authored the draft protocols were paid honorary fees well below salary levels (Michael Li interview).
Corporate form	This is a DOE-funded NREL project.
How long did it last?	Ongoing

What did it do?	The first phase drafted 7 protocols: refrigerator recycling, commercial lighting, commercial lighting controls, residential lighting, residential furnaces and boilers, residential and small commercial unitary and split air conditioning equipment, and whole building retrofits. Phase two is expected to expand this list (The Uniform Methods Project: Methods for Determining Energy Efficiency Savings for Specific Measures, The Cadmus Group For NREL, p.1-6). However, by the time the project was completed, most Midwestern states had finished expanding their efficiency goals. UMP uptake in that region has thus been slower, although Mid American has proposed using the UMP protocols in Iowa. DOE has great hopes that the protocols will be used as the southeast begins to adopt EE targets (Michael Li interview). Furthermore, Navigant Consulting will be using several UMP protocols for Indiana's most recent TRM, as will the evaluator for the Better Buildings, Better Neighborhoods grant program (Bill Mitchell interview).
Strengths and Weaknesses	UMP was very successful in engaging regulators at the onset of the project. This would have been useful in achieving buy-in for the resulting protocols. However, by the time the protocols were drafted, regulators felt isolated and had disengaged to a certain extent. (Brian Granahan interview). Authors were asked to think of Iowa as their audience—a middle of the road state—so that the final protocols reflect current reasonable practice. The protocols are also designed to be used either for ex-ante or ex-post calculations (Bill Miller interview).
Pitfalls to Avoid	The UMP suffered from very flexible timelines and lack of conflict resolution mechanisms; this problem was exacerbated by not being tied to any formal proceeding that would force the process forward. Also, the all-phone conference structure resulted in a lack of personal relationships and made it easier for individuals to derail meetings by pushing their own agendas. (Michael Li and Brian Granahan interviews).
Characteristics to Recreate	The steering committee recognized that focusing on states new to EE or just building their EM&V proceedings would be more fruitful than attempting to convince the more progressive states to revisit the issues (Brian Granahan interview).

California Renewable Energy Transmission Initiative (RETI)

Key Elements of Success	RETI's final reports were advisory to the CPUC, CEC, CAISO, and the POUs. RETI utilized only consensus-based decision-making. No parties were prevented from participating due to conflicts of interest. The members of both the Coordinating and Stakeholder Steering Committees were set before RETI meetings were opened to public oversight. The work of the two independent facilitators was crucial to the success of the collaborative. RETI was not an independent nonprofit.
Why was it formed?	RETI was formed in response to lagging renewable development and backlogs in CAISO's transmission and interconnection processes. It was tasked with identifying "the next major [competitive renewable energy zones] CREZs" (p.3); "first to gather information and advice, and then to build active and consensus support for specific plans" (p.2). The goal was to present a joint statewide transmission development plan.
How was it formed?	"RETI was initiated as a joint effort among the CPUC, the Energy Commission, the California ISO, IOUs, and POUs" (*California Renewable Energy Transmission Initiative Mission Statement*, April 25 2008, p.2).
Who participated and on what basis?	The Coordinating Committee—CPUC, CEC, CAISO, SCPPA, NCPA, SMUD—provided policy direction and general oversight (*Mission Statement*, p.5). The Stakeholder Steering Committee (SSC) was the primary working group and was comprised of all transmission owners and providers, the CPUC, CEC, the US Bureau of Land Management, the Forest Service, CAISO, and one representative from each class of stakeholders (p.6). The SSC also reported to the Plenary Stakeholder Group, which included all other interested parties. "Each participating organization in the Plenary Stakeholder Group, and the SSC, including POUs and the California ISO, will pay its own costs" (p.6).
Corporate form	The Coordinating Committee hired two facilitators and decided on governing rules for the entire RETI (Johanna Wald interview). The governance rules, purpose of the collaborative, and scope of work were put forth by the Coordinating Committee in the Mission Statement (April 25, 2008). This was the only governing document (Rich Ferguson interview). The facilitators were under contract with the CEC (Dave Olsen interview) and the engineering firm Black & Veatch was hired by the CPUC (Rich Olsen interview).
How long did it last?	From the spring of 2008 to January of 2011; however, many of the participants formed a similar group (the California Transmission Planning Group) minus the agencies in 2009. Lastly, FERC Order 1000 put the

onus of transmission planning squarely on the ISO.

What did it do?	RETI identified enough CREZs to potentially deliver 20-24% renewables by 2020, mapped environmentally sensitive areas that could be affected by the identified projects, and assessed California's renewable generation potential in detail (Letter to RETI Stakeholders, January 24). It was the first in a series of efforts to bring all stakeholders together on the topic of transmission development (Jon Eric Thalman interview). Identified 29 priority energy zones and the necessary transmission lines. Three RETI-identified projects have been approved by the CPUC (Tehachapi, Sunrise Powerlink, Devers-Palo Verde no. 2). It also steered IOUs and POUs away from more expensive and difficult-to-permit projects (Dave Olsen interview).
Why did it disband?	In a letter dated January 24, 2011, the Coordinating Committee thanked all stakeholders for their hard work, congratulated them on a job well done, and disbanded the RETI.
Strengths and Weaknesses	RETI was as comprehensive a stakeholder group as can be imagined; it involved industry, consumer advocates, all relevant agencies, the IOUs, and POUs. The organizational structure seems overly complicated, with two oversight groups (one of them made up of all interested parties) and several sub-working groups. The consensus building process took longer than expected, but the resulting plan had broad stakeholder support.
Pitfalls to Avoid	"When everyone has a say in the process, everyone can derail the process" (Jon Eric Thalman interview).
Characteristics to Recreate	RETI had a very compelling consensus building and conflict resolution scheme: "If it proves impossible to arrive at a consensus recommendation, RETI reports will note disagreements with the majority plan and the case for alternative plans preferred by dissenting parties" (Mission Statement, p.7). In practice, this was done by adding footnotes to reports (Johanna Wald interview).

Program Coordination Groups (PCGs)

Key Elements of Success	The PCGs are advisory to the utilities or whoever is developing an EE study. There is no formal voting. Conflict of interest rules do no apply to the limited PCG membership--only IOU and ED representatives are involved. Recently, the CPUC staff expanded PCG participation for some tasks (e.g., cost-effectiveness research, demand response, water-energy,

	etc.). PCG participants find the set topical representatives helpful in the work. There is no independent facilitation, so often the groups go underutilized. They are not independent or nonprofit bodies.
Why was it formed?	To help foster statewide collaboration between the IOUs and Energy Division staff. The groups are intended to help shape, guide, and manage program, measure, or market-wide research projects (Rob Kasman interview).
How was it formed?	PCGs are a very streamlined evolution of the PAG concept (Rob Kasman interview).
Who participated and on what basis?	EE EM&V representatives from ED and each IOU are available to collaborate on any research project (Rob Kasman interview).
Corporate form	None
How long did it last?	Ongoing.
What did it do?	Provide a forum for inter-utility and staff collaboration.
Strengths and Weaknesses	The PCGs are particularly effective when they are convened early and the members meet and discuss work often. Timeliness is essential for PCG success (Rob Kasman interview).
Pitfalls to Avoid	Because of the fluid nature of the actual groups, they are not an appropriate model to inform the technical forum.

ASHRAE

Volunteer Recruitment	Many ASHRAE members begin to participate while being compensated for their work by their official employer; however, a great number of them continue to volunteer long past retirement. The highly specialized subject matter of most technical or standard setting committees has a self-selection effect on membership. The few individuals (a few dozen per sub-committee) who are interested enough to attend meetings consistently, offer quality substantive input, and perform the voluntary work are basically guaranteed membership (Grant Brohard and Steve Blanc interview).

Conflict of Interest Issues	The narrower pool of candidates for each position that is created by the self-selection effect discussed above does lead to imbalances in some committees. Small congregations of like-minded members can sometimes obstruct or delay changes or innovations that are truly needed. However, the only time this effect was really a problem was when the tobacco industry attempted to delay anti-smoking codes. (Grant Brohard and Steve Blanc interview)
Corporate Structure	501c3 (*ASHRAE Research Promotion* brochure, ASHRAE, p.5).
Products and Quality Control	To date, all but seven state governments have mandated a version of ASHRAE's 90.1 standard for energy efficiency in commercial buildings (www.energycodes.gov). Due to the nature of ASHRAE's membership—engineers tend to be very careful—science is never sacrificed for the sake of consensus. ASHRAE would much rather err on the side of maintaining the status quo than act too swiftly and take risks with its codes (Grant Brohard and Steve Blanc interview).
Pitfalls to Avoid	Biased committees can be avoided by strategic volunteer recruitment—(Grant Brohard and Steve Blanc interview).
Characteristics to Recreate	The narrow subject matter area of each sub-committee keeps the work very focused (Grant Brohard and Steve Blanc interview).

The International Code Council (ICC)

Conflict of Interest Issues	The ICC does not limit membership based on conflicts of interest.
Corporate Structure	501c6 (*Bylaws for the International Code Council Inc.*, revised February 2013).

Products	Whereas ASHRAE 90.1 governs the majority of energy efficiency requirements for commercial buildings, most states have adopted versions of the International Energy Conservation Code (IECC) for residential energy efficiency standards (www.energycodes.gov). The IECC is one of 14 'model codes' developed by the un-paid members of the International Code Council (ICC) in a fashion similar to ASHRAE's standards setting process (Building Energy Codes 101, U.S. Department of Energy, Energy Efficiency & Renewable Energy, February 2010. p. 5). Aside from the IECC, which has been adopted in 47 states, the ICC's International Building Code (IBC) is in use at the state or municipal level in every US state and territory; the International Residential Code (IRC) is in use in 49 states; the International Mechanical Code (IMC) in 46; and the International Fire Code (IFC) in 42 (www.iccsafe.org/gr/Pages/adoptions.aspx). Currently, California state law mandates the 2009 versions of the IBC, IRC, IFC, and the International Existing Building Code (IEBC) (www.iccsafe.org/gr/Pages/CA.aspx).

Leadership in Energy & Environmental Design (LEED) Rating System

Volunteer Recruitment	The LEED certification process was developed and is periodically updated by a volunteer steering committee. Even though USGBC staff assists with the process, only unpaid volunteer committee members have voting rights (www.usgbc.org/committees/leed). Seats on the USGBC's LEED committees are highly coveted by professionals seeking success in the fields of energy and environment—seats on the national USGBC Board of Advisors must be filled by experienced professionals with "decision-making authority" and demonstrated long-standing (minimum of three years) leadership in championing sustainability in their industry (*2013 Board of Directors Election Nomination Package*, USGBC, p.6-12). Seats are also reserved for representatives from particular industries, like real estate, energy, public health, and education (Ibid, p.1).
Conflict of Interest Issues	Individual USGBC chapters are free to draft their own bylaws and operating policies. However, they often have 'conflict of interest' stipulations. The Nevada chapter requires that members of the Board of Directors disclose "all actual, potential, or perceived conflicts of interest," and recuse themselves from any decisions from which they could benefit directly or indirectly (*Policies and Procedures 2012*, USGBC Nevada, p.27). The Illinois chapter has a similar, if more specific, policy (*Board Manual*, USGBC Illinois, December 2012, p.59-60).
Corporate Structure	501c3 (www.usgbc.org).

Products	Since its 2000 debut, the US Green Building Council's (USGBC) Leadership in Energy & Environmental Design (LEED) rating system has been trusted by both government and private industry to consistently designate environmentally-friendly professionals, structures, and even entire neighborhoods. LEED-certified homes are eligible for federal tax credits of up $2,000, (www.energystar.gov) preferential financing from leading lenders such as Bank of America, (about.bankofamerica.com) and municipal incentives like expedited permitting programs and utility rebates (www.dsireusa.org).
Characteristics to Recreate	The diverse membership of their Boards and Committees helps the USGBC and LEED secure buy-in from a broad spectrum of stakeholders (Tony Janowski interview).

Emerging Technology Coordinating Council (ETCC)

Key Takeaways for the Cal TF	This was an organization that grew organically without previous explicit regulatory approval—it is a good example of a successful "leap of faith" strategy (LEI interview). ETCC undertook a new governance process because the CPUC expressed interest in widening the group's membership (LEI interview).
Why was it formed?	The IOUs formed the ETCC in 98-99 when ET program funding was transferred from them to the CEC to fund PIER grants—they wanted to stay informed and active in priorities (LEI interview).
How was it formed?	Informally, by utilities, not acknowledged by Commission until 2003-2004 (LEI interview).
Who participated and on what basis?	The IOUs, SMUD, CEC are members, CPUC staff observes. Currently only the utilities (including SMUD) have voting rights (LEI interview).
Corporate form	It is not an independent entity. In the past, each utility covered its own costs and invoiced the others—this was done very transparently but there were no previous agreements put in place. Now there will be formal MOUs between the utilities (LEI interview). 501c3 status was considered but deemed unnecessary (and administratively costly) because ETCC doesn't disburse funds or need its own legal council (LEI interview).
How long did it last?	It is still ongoing.

What did it do?	It serves as a forum to share information on different utility ET projects.
Strengths and Weaknesses	The ETCC is a successful example of a “leap of faith” strategy, even though it was never officially branded as such. The ETCC was a new concept at its inception, and it proved its own value as it grew organically, only receiving formal regulatory acknowledgment years into its tenure.

Connecticut Energy Efficiency Board (EEB), formerly ECMB

Key Takeaways for the Cal TF	All three NE programmatic boards strive for consensus in their decision-making, and rely on simple majority votes when this fails. CT and MA require supermajority votes for budgets and efficiency plans (Sosland et. al., pg.4).
Why was it formed?	Before 1998, the details (budgets, compensation, programs) of utility efficiency plans were negotiated by the settling parties to rate cases. As the state moved towards restructuring, and the efficiency budgets began to be set by statutes rather than dockets, the former model had to be updated (Sosland et. al. 2012, *Collaboration that Counts: The Role of State Energy Efficiency Stakeholder Councils*, pg.2).
How was it formed?	ECMB was created by the state's restructuring law (Sosland et. al.pg.2).
Who participated and on what basis?	"Importantly, efficiency advocates sought to include on the ECMB parties who had expressed skepticism over the values of increased efficiency spending" (Sosland et. al.pg.2). The Board also retained outside technical and policy consultants. The Department of Energy and Environmental Protection Chairs the Board, the Attorney General, Connecticut Legal Services, manufacturers alliance, the University of New Haven, the Office of Consumer Council, and Environment Northeast are voting members. The utilities are non-voting members All three NE programmatic boards strive for consensus in their decision-making, and rely on simple majority votes when this fails. CT and MA require supermajority votes for budgets and efficiency plans (Sosland et. al., pg.7).
Corporate form	ECMB was organized separately from the state energy office (Sosland et. al. pg.2). As part of a recent reorganization of the state's energy agencies, the energy office and regulator where combined to form the Public Utilities Regulatory Authority (PURA). PURA chairs the newly re-named EEB (pg.4).

How long did it last?	Ongoing

Rhode Island Energy Efficiency and Resources Management Council (RI EERMC)

Key Takeaways for the Cal TF	All three NE programmatic boards strive for consensus in their decision-making, and rely on simple majority votes when this fails (Sosland et. al., pg.4).
Why was it formed?	In 2006, Rhode Island adopted least cost procurement (LCP)—where energy efficiency resources are to be acquired whenever less expensive than supply resources. EERMC was "charged with a central role in developing the state's electric and gas utility efficiency plan... [including] conducting a mandatory assessment of efficiency potential in the state and beginning the system reliability review of other demand side resources" (Sosland et. al., pg.3).
How was it formed?	The Comprehensive Energy Conservation, Efficiency and Affordability Act formed the RI EERMC in 2006 (Sosland et. al.pg.2).
Who participated and on what basis?	The University of Rhode Island, Brown University, Citizens Bank, Environment Northeast, the Building Commissioner, and an independent low-income consultant are voting members. National Grid, Oil and Heat Institute of RI, and the state's Office of Energy Resources are non-voting members. All three NE programmatic boards strive for consensus in their decision-making, and rely on simple majority votes when this fails. (Sosland et. al., pg.7). Members are appointed by the Governor (http://www.rieermc.ri.gov/composition/).
Corporate form	The Council is chaired by one of the regulatory/legal voting members who is not affiliated with the RI PUC. The energy office is a non-voting member, but it does have the authority to staff the Board (Sosland et. al., pg.4).
How long did it last?	Ongoing
What did it do?	Planning led by the EERMC has grown EE spending in the state from $16 million in 2008 to $110 million in 2014; the 2012 to 2014 plan saved RI ratepayers $785 million (Sosland et. al., pg.3).

Massachusetts Energy Efficiency Advisory Council (EEAC)

Key Takeaways for the Cal TF	All three NE programmatic boards strive for consensus in their decision-making, and rely on simple majority votes when this fails. CT and MA require supermajority votes for budgets and efficiency plans (Sosland et. al., pg.4).
Why was it formed?	The EEAC replaced an earlier, less formal stakeholder collaborative (Sosland et. al., pg.3).
How was it formed?	It was created in 2008 by the Green Communities Act (Sosland et. al., pg.3).
Who participated and on what basis?	The state energy office chairs the Council and manages it as part of an Executive Council (along with other key members); the regulator (Department of Public Utilities) does not participate (Sosland et. al., pg.4). Voting members are: Departments of Housing and Community Development, Energy Resources, Environmental Protection, and Attorney General, Tufts University, Low-Income Energy Affordability Network, organized labor, Genzyme, Associated Industries of Massachusetts, Environment Northeast, and Smith College. Non-voting members are: Municipal aggregators, the utilities, energy efficiency businesses, and the heating oil industry. All three NE programmatic boards strive for consensus in their decision making, and rely on simple majority votes when this fails. CT and MA require supermajority votes for budgets and efficiency plans (Sosland et. al., pg.7).
Corporate form	Chaired by the Department of Energy Resources.
How long did it last?	Ongoing
What did it do?	EEAC implemented Massachusetts's new LCP mandate by identifying the state's efficiency potential and setting the necessary investment levels to achieve all cost efficient savings (Sosland et. al., pg.3).

Northwest Regional Technical Forum (NW RTF)

Key Takeaways for the Cal TF	Unlike the Cal TF model, the NW RTF utilizes formal voting and has a strict conflict of interest policy.
Why was it formed?	In order for the many utilities in the Northwest region to engage in meaningful integrated resource planning, consistent values needed to be developed and adopted across the planning region.
How was it formed?	In 1996, Congress directed 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.
Who participated and on what basis?	The RTF members are up to thirty (30) technical experts, largely volunteer [currently as few as 6 receive compensation for travel expenses], that guide, peer-review, and then ultimately approve the RTF work product, including measure parameters, templates/forms, and guidelines. The paid RTF Administrator works collaboratively with TF 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 paid staff includes a Chair, technical staff (approximately 7 full-time equivalents) and administrative and managerial staff (approximately 3 full-time equivalents).
Corporate form	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. The PAC directs the RTF work.
How long did it last?	Ongoing
What did it do?	The NW RTF was the first to introduce a peer review component to the development of deemed savings estimates. It also created a unified ex ante system for the entire 160+ utility Pacific Northwest region.

Northeast Energy Efficiency Partnerships (NEEP)

Key Takeaways for the Cal TF	The NEEP EM&V Forum strives to make decisions through a consensus process whenever possible. The Steering Committee Co-Chairs determine when a vote is necessary. In those cases, a super majority (2/3) of quorum is required (EMV Forum Operational Guidelines, February 2014, pg. 5). Because the Steering Committee includes regulators, and some non-Steering Committee Forum participants are regulated utilities, all non-Steering Committee members are asked to leave a meeting/phone call when a vote is called. However, all participants are given the opportunity to participate in pre-vote discussions (*Ibid*).
Why was it formed?	"To serve the Northeast and Mid-Atlantic to accelerate energy efficiency in the building sector through public policy, program strategies and education" (http://www.neep.org/about-neep/index). The NEEP Forum was started to address inconsistencies in savings reporting across the region (Julie Michals interview).
How was it formed?	NEEP founded a regional EM&V forum in 2008, supported by resolutions from the New England Conference of Public Utility Regulators and Mid-Atlantic Conference of Regulatory Utility Commissioners. Initial funding came from DOE, EPA, NYSERDA, the Energy Foundation, and CSG (NEEP, *Regional Evaluation, Measurement & Verification Forum Overview*, December 2013, pg.2).
Who participated and on what basis?	NEEP has a permanent paid staff to perform its duties, but the organization is led by a volunteer Board of Directors. The Board of Directors includes representatives from the Vermont Energy Investment Corporation, the utilities, NRDC, efficiency providers, ACEEE, RAP, Environment Northeast, and the Long Island Power Authority (http://www.neep.org/about-neep/board-of-directors/index). The Steering Committee of the EM&V forum is made up of PUC commissioner, SEO directors, and air regulator representatives; project committee and subcommittees are 'staffed' by PUC and air quality regulator staff, SEOs, program administrators, ISO and RTO staff, DOE, EPA, and evaluation experts (NEEP, pg.5). The NEEP Board of Directors approves the Forum's agenda, budget, and revenue plan. The forum also has a paid administrative staff (pg.6). Technical consultants are often used.
Corporate form	Nonprofit
How long did it last?	Ongoing

What did it do?	NEEP advocates for energy efficiency-friendly policy, regulations, and codes and standards. The organization also works to accelerate the adoption of new energy efficient technologies by disseminating information and funding emerging technology development and deployment. NEEP also host a regional EM&V forum, led by Rich Sedano and New Hampshire PUC Commissioner Robert Scott. Among the Forum's achievements are: a TRM for the Mid-Atlantic region, metering data collection protocols, load shape research for HVAC, commercial lighting, and variable frequency drives, and emerging technologies saving assumptions (pg.17-18).
Why did it disband?	N/A
Strengths and Weaknesses	The NEEP Forum is currently in the second year of maintaining a regional utility-by-utility savings database. One of the most difficult aspects of its work has been working though each state's separate regulatory process. At times this has slowed the work down (Julie Michals interview).

Western HVAC Performance Alliance (WHPA)

Key Takeaways for the Cal TF	The WHPA is an advisory board to the utilities. The Alliance's thorough, six-month self-chartering process has led to enormous buy-in from industry. After initially using consensus decision-making, it transitioned to a formal voting, super majority model. The vast majority of the Alliance's work is done by volunteers—leveraging approximately 17,000 subject matter expert hours to date.
Why was it formed?	In 2009, the California Energy Efficiency Strategic Plan (CEESP) stated, "an HVAC Advisory Group should be chartered to involve high-level HVAC industry stakeholders—such as manufacturers, distributors, and contractors—to coordinate industry sponsorship of and participation in HVAC strategies. Membership should also include other key players, such as the CPUC, Energy Commission, utilities, building owners/managers, consumers, and the Federal government" (www.performancealliance.org).
How was it formed?	Energy Division tasked its then-HVAC Energy Efficiency Programs consultant, Dale Gustavson, with launching the Alliance. WHPA then transitioned to be managed under contract with the IOUs (first SCE then PG&E) (Gustavson interview).

Who participated and on what basis?	WHPA has more than 300 members, including program implementers/contractors, trainers, manufacturers, industry associations (ASHRAE, etc.), research organizations, IOUs, CPUC, and non-CPUC government agencies (*WHPA by the Numbers*, Western HVAC Performance Alliance, March 2014).
Corporate form	WHPA is a collaborative working group, managed by and advisory to the utilities (http://www.performancealliance.org/about).
How long did it last?	Ongoing
Strengths and Weaknesses	The Alliance's thorough, six-month self-chartering process has led to enormous buy-in from industry.

Illinois Stakeholder Advisory Group

How was it formed?	The Illinois Energy Efficiency Stakeholder Advisory Group (IL EE SAG) was established in the Final Orders approving the first three-year utility energy efficiency plans (February, 2008) by the Illinois Commerce Commission (ICC) to review energy efficiency portfolio progress towards achieving the required energy efficiency and demand response goals and to continue strengthening the portfolio of programs.
Who participated and on what basis?	The EE SAG is open to all interested parties. Regular participants include: IL utilities (ComEd, Ameren IL, Nicor, Peoples Gas/NSG); IL Department of Commerce and Economic Opportunity (DCEO), who administers 25% of ratepayer collected funds; environmental groups (NRDC, ELPC); ratepayer advocates (CUB, IL AG); ICC staff; EM&V consultants (Navigant, ADM Associates, ODC/Cadmus); and the Midwest Energy Efficiency Alliance. Participants who engage on select topics that relate to their interests include: contractors, implementers (e.g. CSG, ClearResult, Franklin Energy), City of Chicago, Metropolitan Mayor's Caucus, and customer groups (REACT, Illinois Industrial Energy Consumers).
Corporate form	The IL SAG is not a formal legal entity. The SAG facilitator and staff are funded through a contract.
How long did it last?	The SAG has operated for six years, and is authorized by the ICC to operate for the next three-year program cycle.

What did it do?	Duties include: 1. Advising on EE/DR portfolio and program design and implementation; 2. May develop and/or advise on new programs; 3. Development and updating of statewide Technical Reference Manual; 4. On an annual basis, advises on program-level NTG values for the upcoming program year; 5. Upcoming In 2014, ICC has directed the SAG to develop a statewide IL policy manual for ICC review and approval.
Why did it disband?	N/A
Pitfalls to Avoid	1. No Statewide EE Policy Manual: IL does not currently have a statewide policy manual to firmly establish policy principles by which the EE/DR portfolios and programs must be designed and implemented. This has resulted in repetitive discussions of the same issues. The ICC has recognized this flaw and has required the SAG to develop a statewide policy manual for it to consider in 2014. 2. Regulatory Inconsistency: The ICC has considered and adopted orders for the five IL portfolio administrators in separate dockets that are not consolidated or well-coordinated. As a result, the SAG has to consider similar issues for each portfolio administrator based on ICC directives that sometimes differ, which leads to inefficiencies.

Characteristics to Recreate	1. Open, Public, Transparent Process: Anyone can participant in the SAG. 2. Independent, Experienced, and Effective Facilitation: The facilitator is independent of all the participants, and is seen as an unbiased, honest broker between opposing views. The facilitator is experienced in EE, technically trained, and has extensive experience running collaboratives. Thus, the facilitator is able to effectively narrow differences and forge consensus. 3. Clear Objectives: SAG work follows a clear, written annual work plan. The SAG facilitator develops a three-year plan based on ICC directives and stakeholder input, then updates the plan annually based on stakeholder input. SAG work and objectives are written, clear, transparent, and based on complying with Commission directives and stakeholder needs. 4. Clear and Simple Process: The SAG process rules are clear, simple, transparent, and consistent. 5. Broad Participation: Because the SAG is seen as effective, transparent, and meaningful, the SAG has regular, broad-based, engaged participation from all key EE/DR stakeholders in IL. Due to the broad, active participation from key stakeholders, issues that might be contentious in litigation can be worked out in a collaborative process that generally leads to an outcome that meets the needs of the broad range of participants. 6. Meaningful Opportunity to Participate: SAG comments and requests are tracked and responded to. If agreements are not reached, SAG participants know that their perspective will be documented and memorialized for decision-makers. Because of the care taken to track and respond to participant comments, SAG participants know that their input is being thoughtfully considered, memorialized, and can influence outcomes. 7. Transparent: All SAG meetings are open. All SAG plans, meeting materials, meeting notes, action items and work products are posted on a public website (www.ilsag.org). 8. Lower Cost Compared to Litigation: Many issues taken up by the SAG are issues that would otherwise be raised and resolved through litigation. The SAG process is quicker and more efficient than litigation, and thus lower cost. 9. Clear Process and Timeline for Recurring Items: The SAG has a clear process and timeline for annual recurring items, which includes what information must be provided at the start of the process, the timeline for completing the process, and the expected work product. Thus, recurring activities are handled efficiently, and parties know how and when they can participate and provide input. 10. Participation from In-State and Out-of-State Experts: The IL EE SAG regular participants include senior, experienced EE professionals who practice in other leading jurisdictions, including VT, MA, CA, CO, WI, and other neighboring Midwestern jurisdictions. The out-of-state participation allows IL to consider data and EM&V results from other states and can learn from and incorporate best practices from elsewhere.

Appendix 2: List of Interviewees

The following individuals very generously gave their time to be interviewed for this project. Their insights and help were invaluable.

1. Steve Kromer, interviewed about IPMVP, still at the Efficiency Valuation Organization
2. Athena Besa, interviewed about CALMAC and CADMAC, still at SDG&E
3. Peter Miller, interviewed about CBEE, currently at NRDC
4. Mary O'Drain, interviewed about LIOB, still involved through PG&E
5. Annette Beitel, interviewed about PAGs and PRGs
6. Johanna Wald, interviewed about RETI, still at NRDC
7. Jon Eric Thalman, interviewed about RETI, still at PG&E
8. Dave Olsen, interviewed about RETI, now at CAISO
9. Rich Ferguson, interviewed about RETI, CEERT
10. Rich Aslin, interviewed about DAWG, still involved through PG&E
11. Chris Ann Dickerson, interviewed about DAWG, still involved
12. Brian Granahan, interviewed about UMP
13. Michael Li, interviewed about UMP, still involved through DOE
14. Rob Kasman, interviewed about PCGs, still involved through PG&E
15. Grant Brohard, interviewed about ASHRAE, currently at PG&E
16. Steve Blanc, interviewed about ASHRAE, still involved through PG&E
17. Anthony Janowski, interviewed about USGBC and LEED, still involved
18. Bill Miller, interviewed about a variety of groups, currently at LBNL
19. Dale Gustavson, interviewed about the WHPA, Better Buildings
20. Julie Michals, interviewed about NEEP's EM&V Forum