

Meeting Minutes and Notes

9:00 – 9:30 Agenda Item 1: Welcome and introductions (Actual 9:10)

- Chuck Kurnik: Provided brief introduction and invited all in room to introduce themselves.
 - Diana Lin, National Association of State Energy Officials
 - Julie Michals, Northeast Energy Efficiency Partnerships
 - Gene Rodrigues, Southern California Edison
 - Chuck Rea, MidAmerican Energy Company
 - Carla Frisch, DOE
 - Val Jensen, Commonwealth Edison
 - Tina Jayaweera, CADMUS
 - Hossein Haeri, CADMUS
 - Bill Miller, DOE/LBNL
 - Bill Newbold, Detroit Edison
 - Mike Li, DOE
 - Tom Eckman, Regional Technical Forum
 - Marguerite Kelly, NREL
 - Chuck Kurnik, NREL
 - Doug Scott, Illinois Commerce Commission
 - Brian Granahan, Illinois Commerce Commission
 - Mary Ann Ralls, National Rural Electric Cooperative Association (Phone)
 - Steve Kromer, Efficiency Valuation Organization (Phone)

Action Items

- NREL and Cadmus to communicate with TAG, TE, outcome of SC meeting
- Schedule next call: Tues Feb 28, 1pm Eastern Time
- NREL/CADMUS to ensure that list of Technical Advisory Group members and Technical Experts is accessible to Steering Committee members and is kept current. This information is available on the UMP website under “Project Members”.
- DOE to join three sets of definitions together. DOE to send documents to Cadmus, and they will integrate.
- Protocols
 - Steering Committee to begin reviewing protocols and provide feedback to Chuck Kurnik as soon as possible. Expect to have Steering Committee review of all protocols complete by end of March.
 - Post SC’s protocol feedback so that other SC members can see it. Post responses to their comments, and how to post comments to the same part of a document in one place?
 - NREL to post a MS-Word version of the documents to allow SC Members to do track changes, if they choose.
- Industry Outreach and Industry Review

Meeting Minutes and Notes

- Steering Committee to provide NREL and DOE with suggested contacts for Industry Review, including names of organizations, individual contacts at each organization, and conferences/events at which it may be good to present the Uniform Methods.
- Potential for hosting a Webinar for the National Association for Clean Air Agencies. What other organizations would we like to provide with targeted outreach?
- NREL/Cadmus to provide a list of stakeholders so there is not duplicate work going on. We can post organizations online, but not contact information due to PII issues.
- Email to follow later requesting personal contacts and what is the best way to contact the organization, as well as summary questions of what you want to get out of the industry review
- Regarding presenting at industry conferences, NREL will develop materials with input from DOE and Cadmus.
- Develop list of conferences, make table available for people to “sign up” as to who might be able to present
- Speak with Diana Lin about session at ACEEE summer study – contacts and coordination
- Phase 2 Measures
 - Chuck Kurnik to distribute measures and how voting will work.
 - Cadmus/NREL to distribute qualitative understanding of where many different methods/approaches exist so that SC can choose appropriate Phase 2 protocols. Similar to original voting.

Detailed Meeting Notes

Welcome by Mike Li

- Mike Li: Welcomed everyone. Stated that everyone knows the project, focused on commonality. Recognizes that everyone takes a different approach for calculating Demand Side Management, load forecasting, planning for the future.
 - Summarized project beginnings as saying: “If I’m a state and I want to choose the best program implementer, I should have a relative understanding and knowledge as to who is the best, and if each implementer is calculating savings in the same way, we can get closer to efficient comparisons”
 - Referenced “Green Button”, championed by the prior CTO for the white house
 - Described that “Green Button” was voluntary adoptions of measures
 - Green button: customers should have access to their data.
 - Had a number of entities agree on this voluntary standard
 - Similar success should be possible with the Uniform Methods
- Carla
 - Summarized work on SEEAAction and relationship to the Uniform Methods Project
 - UMP spun out of the EM&V working group

Meeting Minutes and Notes

- UMP to be treated as a concrete project with concrete output
- SC Member
 - Stated importance of working towards a product we all agree to implement, but also need to be aware that there are other methods that are going on nationally.
 - Must have some commonality and awareness of other projects, definitions

9:30 – 9:45 Agenda Item 2: Project Status Update (Chuck Kurnik)

- See presentation “Project Status Update”
- Question:
 - How are you vetting the protocols with the evaluation community (ex: how do you get those being paid to do the evaluations to adopt the evaluation methods?)
 - States that from his experience, one of the biggest problems is having evaluation firms adopt other evaluators’ methods
 - Chuck Kurnik: Part of the approach is to have a number of different leading firms serving as the technical experts.
 - Hossein Haeri: The technical advisors group members cover all of the major consulting firms, by design of the project.
 - Bill Miller: Expressed understanding that one of the reasons we started with specific methods was to avoid one method vs. another. The intent of starting small is that external individuals are able to agree or disagree very specifically about one specific issue and then propose an alternate solution. Wanted to start with individual use cases to see if that type of clarity was possible.
 - Mike Li: Big concern from DOE was same as what Val mentioned. Told Cadmus and NREL to spread the reach as far as possible.
 - Team must make clear that 80% of the firms doing the evaluation work had their fingerprint on this.

9:45 – 10:30 Agenda Item 3: Proposed report Outline (Hossein Haeri)

- Noted that despite original thoughts that creating and getting feedback on the outline of a report was trivial, it revealed overlapping and cross-cutting topics relevant for all protocols.
- Summarized the need to decide how to organize the material, talk about consistency across the document, content, degrees of of specificity, tradeoffs between flexibility vs. prescription. Need to ensure sufficient consistency.
- Recognized that for most of the protocols, technical questions are answered, but policy questions remain. Can’t fully separate them from each other.
- Stated that the original plan was to complete 7 protocols by the end of phase 1 but not quite complete.
 - Issues were not technical, but due to logistical aspects of coordinating technical experts, work availability, coordination between protocols, etc.
- Summarized approach for convening technical experts:

Meeting Minutes and Notes

- Allocated about 40 hours of work per protocol at a set hourly rate which is below the normal commercial rate but felt that because of recognition and not wanting to be left out, would be OK.
 - Noted that to-date, this has held to be true. People don't want to be left out of this project. Recognize importance of being associated with the work.
- Noted that technical experts stressed point that the Uniform Methods won't be presented as a CADMUS product, but that the expert's role will be clearly stated.
- Group stressed need for continuous coordination
 - Stated that Regional Technical Forum is currently developing protocols
 - Summarized minimal coordination between BPA and RTF
 - Suggested that CADMUS try to use the same experts as other efforts for coordination.
- Introduced summary definition of savings: ExAnte > Gross > Evaluated Gross > Net Savings
 - Tina Jayaweera
 - Work in progress, evolved since we began the process, and continues to evolve
 - Recognized inconsistency between definitions and terminology in some of the published protocols.
 - Question
 - What is the difference between adjusted gross savings or evaluated gross savings? Does "evaluated gross savings" have anything else other than just adjusting the savings up or down.
 - Response: Chose to use "evaluated" because "adjusted" subjective judgment.
 - SC member
 - Stressed consistency of definitions with the NAPEE guide and other efforts.
 - Have the discussion group. Need to discuss two bullets of Gross Savings, the bullets being "Measurement & Verification" and "Evaluations"..
 - Suggested that an introduction to these protocols should have an overall methodology to the protocols.
 - Carla
 - Stated that connection between all three groups is DOE. DOE should be able to coordinate such that definitions are consistent.
 - Hossein Haeri
 - Need to know what steps are required to demonstrate that the numbers are reliable. Need to have credible savings.
 - Utility and regional resource planners have historically been most skeptical of demand side management as a resource.
- UMP Report Structure
 - Important to know distinction between Evaluation and M&V.
 - SC Member: **Market effect calculations**, need to think about treatment in the report of how one might go about a market effects evaluation. Establishing some protocol for that as more and more entities start pushing things forward, aggregation of the effect is less clear and market effects turn out to be a large issue.

Meeting Minutes and Notes

- Bill Miller: Only way to move forward on difference is the “LEGO-Effect”. Define the components and build to the solution that works for your function. Stressed the importance of the list of possible components.
- SC Member: Responded to Bill Miller reminding everyone of the importance of considering market effects, especially as programs are more widespread. 2nd: reemergence of a focus on non-energy related benefits: job creation, environmental is important. The introduction to the methods should have discussion as to “while the UMP doesn’t cover this, these are the other sorts of things that we need to consider”. Don’t have to have answers. Need to explicitly acknowledge what is not dealt with in the project.
- SC Member: Asked: What is the objective? who are the consumers of this report?
 - Carla: doesn’t necessarily need to be a report, though that is the typical DOE method. Have the usability committee to determine what format to create.
 - Hossein: not a report per say, a compendium of the issues. Has to be presented together, somehow.
 - SC Member: likes the idea of standalone protocols. It may be the case that different people who are doing planning are not interested in the various things. Like the idea of being able to go to some depository that you can pull the things you need. Don’t know that all the background needs to be stated more than once.
 - Hossein: doesn’t want to suggest that there wouldn’t be “a” document, but just that there needs to be something addressing cross-cutting topics.
- SC Member: Reminder that the Steering Committee all signed up to champion something
 - Need to clearly describe what the UMP accomplishes.
- SC Member: when the forum developed recommended EM&V methods, it ended up being a document that was targeted to the program administrator. This document needs to have pieces focused on administrators, state energy office, regulators, etc..
- SC Member: how do you get this document into people’s hands and how do you get people to actually read it?
 - Carla: To be addressed during communications section
- SC Member: Her impression was that this would be more of a cookbook approach, take the basic recipes and read about what you want, use what makes sense to your program. What she has seen is that it is turning more into treatise. She is concerned that even if you separate it out, it will be too unwieldy and convoluted. Will have to go to too many links/connections, particularly smaller organizations/etc.
 - Michael Li: Can’t have the cookbook without having some discussion of the other elements, don’t want it to turn into a treatise but need to address some of the topics.
 - Carla: good reminder that the objective is a cookbook.
 - Hossein: how to organize it, there are overarching topics.
 - SC Member: on that, agree. Basic “formula” is basically the same, definitions will be constant.

Meeting Minutes and Notes

10:45 to 11:15 Agenda Item 4: Report out from N-TAG

- NTG in the context of UMP. Will discuss: freeridership, participant and non-participant spillover, and rebound
 - Summarized lack of consensus on what is the appropriate and adequate effort for measuring the effects.
- Question of policy: what is done with the net vs. gross numbers?
 - Do you use them to determine performance to program administrators or do you use them prospectively for planning and program design purposes? One can't argue freeridership and spillover away. They do matter. What is the interaction, overlap?
- SC Member: In his experience quantifying net, savings are reduced, costs are not reduced.
- Discussion: Entire room covered role of savings, costs, responsibility for costs, effect of savings, in general.
 - SC Member: Summarized that policy is to calculate spillover, but too vague to actually measure and implement so in practice it is often ignored. Important to capture this discussion. This is a measurement problem that exists. Vast majority of jurisdictions are only capturing one side of the effect.
- SC Member: Expressed concern with discussion. NTG not in original project, but included by popular demand. NRECA does not support NTG as part of this project. They understood that if there was going to be any discussion of this, it would be down the road, but has since taken a larger role in discussions. Having said that NRECA does not agree with the first bullets but she does agree with slide 8 (see presentation: "Report out from NTAG"). In the draft of the NTG report, there were a lot of reference to recommended appropriate methods and other areas where NTG can be useful but no overall assessment of the pros and the cons. Complicated, expensive, convoluted calculations.
- SC Member: Discussing NTG as one of the "building blocks" of the protocols, stated that the least developed is "delayed spillover", and the question of when does that become freeridership.
 - Also noted need to count future effects towards programs not against programs.
- SC Member: Stated that while other member have been very blunt, she does address important point. NTG is too difficult. Something is broken, not working anymore, but we had said we would focus on the protocols. I feel it is an important process to understand what we are going to achieve with the net savings pieces.
- Chuck Kurnik: Proposed tabling this discussion. Question of the mechanics of it. Whether we can leave out NTG and then state that it is addressed after. CADMUS can only focus on the mechanics and the methodology of the calculation. Whether freeridership should or should not be considered are policy questions.
- SC Member: Raised question: If the ultimate goal of this project is to compare projects – can you sufficiently do that with gross savings?
- Tina: Both are sometimes EIA, but often you only have one or the other.

Meeting Minutes and Notes

- Bill: First step is to get to evaluated gross. Don't necessarily need to have NTG. May not go back to the bill of sale, but NTG is a very strange policy decision.
 - Suggested that if one were to fully and truly change market, then freeridership is 100% and you have 'failure'.
- SC Member: problem is the measurement approach to address net savings or NTG. Stressed importance of consistency.

11:15 to 12:15 Agenda Item 5: Review Protocols (Tina)

- Summary of overall status. Give an understanding of the overall protocols. Three to discuss. Still under technical review for Refrigerator recycling and HVAC Unitary.
- Residential Lighting
 - How to determine in-service Rate?
 - Buy a 6-pack of bulbs, may not all be used at that time.
 - Recommended approach is an on-site audit.
 - SC Member: Has come up in multiple jurisdictions. How do you follow-up on the later savings – what about the bulbs that are placed in service in later years. They were bought on the buy-down, but how do you get that savings back once actually implemented? Known effect.
 - SC Member: need some type of study that captures savings in post-program years. Not too many hoarders or people who are so economically irrational that they buy the bulbs to never use them.
 - INTEF: HVAC Interactive Effects: not feasible to develop base models and simulators, use existing TRM or calculation, considering hvac saturations. There should be some "number" that is associated with
 - SC Member: Persistence. Delayed installation. It is a really big deal. Is nodding your head (Carla) meaning you are going to deal with it?
 - Tina: Yes, you have to deal with the delayed installation. Answer is follow-up evaluation.
 - SC Member: There were three methods mentioned for the in-service date. Asked how is this built into the document? Thought project would be more definitive. Stated we know there are these methods out there now – there are a bunch of different ways to do it. Where is this document taking us to if it is not stating which one to use?
 - Tina: A lot of "it" is dispersed in random documents, so while it seems like everyone knows it, it can be hard to find. Started with "this is the way to do it" without caveats. Not everyone has the same budgets, however.
 - Hossein: Should be more in the way of recommendations. Don't want to dictate how every jurisdiction should do it. Give them the options, but make a case for a preferred option.

Meeting Minutes and Notes

- SC Member: If we are seeking comparability across the country. There is a certain level of rigor that is tolerable and below that it is not worthwhile.
- SC Member: Deemed savings. If it is the intention of the project to get everybody at the same time and same standards, level of rigor, same metering, etc. the team needs to recognize that is just not feasible.
 - Michael Li: no expectation that everyone is going to be at the preferred or recommended protocols. Setting the bar at a certain level. Hope that there is migration towards that standard. Can caveat those entities that didn't choose the preferred methodology.
- SC Member: looking for the right balance between credible vs. cost balance.
- SC Member: Can be addressed in usability.
- SC Member: Any state regulators. Rate controlled. What are the states requiring, expecting. Not just what the members can afford. What might be coming from all the states?
 - Bill Miller: one of the things – legislation in 111 Congress. Some cutoffs, bills where this type of discussion comes up.
 - Bill Miller: isn't this something that might be addressed at the regional level? Try to improve the deemed assumptions. Is it a big issue for 2 major utilities and if so, is there something wrong with EM&V issues.
- SC Member: No specific issue dealt with the regional forum. When they develop guidelines, looked at 14 measures and recommended guidelines. Looked at CA protocols where there were specific tiers. Chose to use the terms "recommended" and "alternative".
- Tina: Reminded everyone to remember that protocols will need to be refreshed.
- Team discussed "Lumen Equivalence"
 - SC Member: 60w replacement in large text on top. Lumens in 5point on back.
 - SC Member: agree with last speaker.
 - SC Member: When conducting surveys, people don't know what lumens are
 - SC Member: Agreed, often don't know what was replaced. Wrong base case.
 - SC Member: Some of purchases are replacement lamps, some are replacing burned out CFL.
 - Upstream programs – all sales are not new installations. Getting a fix on that is important.
- Refrigerator recycling programs.
 - Parameters are important. Depending on the type of program, location, primary, secondary, etc.
 - Expert for refrigerator recycling: Doug Bruchs at CADMUS. Have done a lot of the in situ measuring at Cadmus. Metering is expensive, preferred approach and not every jurisdiction can afford to do that, but provide option with caveats.

Meeting Minutes and Notes

- SC Member: question on baseline: Why is it tied to local energy codes?
- SC Member: unconditioned space is important if you also collect climate zone, you don't need to keep doing the same work over and over again.
- SC Member/Marguerite: question about the NREL measures database.
 - Tina: lots of information on cost, not much on performance
- SC Member: Asked when we say baseline: is it the current code, or the actual current practice? Not all devices meet current code.
 - SC Member: Provided example that construction is often worse than code. Lighting current practice is better than code. Baseline should be what people are going to do if you don't have the program. (call that current-practice).
- Hossein- does it matter if the difference is between the retrofit vs. new?
- SC Member: forecasting is built on econometrics (98%) which is based on past experience which is current practice not code.
- Bill Miller: using the recipe, need to decide what options get built into the formulas depending on the purposes of the users.
- SC Member: If code or practice is different, then you get this write-off at the end. If you start with that assumption, you avoid the later surprises of the write-offs. Market baseline takes care of some of the net to gross.

12:30 to 1:15 Working lunch: Agenda Item 5 Review Protocols (continued)

- Unitary Commercial HVAC
 - Split HVAC Unitary and residential furnace and boilers.
- Focus on 5.4 ton – 15 ton AC systems
- Savings approach: Size and efficiency of installed units, baseline efficiency, equivalent full load hours.
- How best to stratify your metering sample.
- More defined purpose and scope required, recommend using SEER and IEER vs. only use EER when IEER is not available.
 - SC Member: discussion of in situ measurements
 - Bill Miller – buildings program has had development of a very efficient 10-ton IEER measure, hopefully manufactured in Minnesota, so while IEER isn't here yet, it is butting up against us.
 - Carla: Have to see if it is in place and it works, have to see if it works before committing to refresh it.
 - SC Member: Wanted everyone to remember the level of effort required to update.
 - SC Member: outlook of protocols and updates is important towards the approach and acceptance.

Meeting Minutes and Notes

- SC Member: question relevant to all three protocols: noticed a section on sampling, and wanted clarification: she is under the impression that that is more of a cross cutting issue – does it really belong in protocols
 - Tina: Currently looking for experts to write the various cross-cutting information.
- Marguerite: focus on completing the protocols first because cross-cutting information is most subject to discussion but hardest part to nail down.
- Remaining protocols, just a few slides about their proposed approach. Status is not quite at the same level, key parameters are discussed.
- House retrofit is more of a programmatic approach. How to do billing analysis. One of the reasons why the furnace/boiler is back where it is it includes billing analysis.

1:30 to 2:15 Agenda Item 6: Communications Plan

- Mike Li: Provided introduction to communications planning. Stated that it is not fully finalized, but as we don't meet all that often, wanted to present where it stands at this point. Chuck Kurnik to discuss.
- Chuck: Summary of the plan elements, and listing some tactics, some drill down, some brainstorming.
- Feedback question to Steering Committee: communication adequate?
 - Response: Website good, turned question around: has communication with SC been acceptable? Yes, everyone is happy with the back and forth level of effort between the groups.
- SC Member: Question on access. Felt that having technical experts and some of TAG be part of the discussions today could be beneficial.
 - SC Member: Asked how things discussed today get back to the TAG.
 - Carla: NREL and Cadmus to act as liaison. Notes to be distributed.
- SC Member: what do you imagine as the next steps?
 - Question about Steering Committee feedback to protocols. Would like to know what other people are saying (post feedback) and would appreciate response:
 - Our questions may be ignored, but let us know why we are being ignored.
 - Chuck: Yes, we will provide a statement summarizing how each question was addressed.
- SC Member: would track changes in Word be a more practical approach to making these notes?
 - Chuck:
 - Summarizes the PDF comment tool and the need for high-level feedback.
 - For those interested,
 - NREL/CADMUS to find a way to join up all these comments together.
 - Website: summary emails from Chuck Kurnik describing what has changed to the website.
- Discussion: How to initiate a thorough industry review of the protocols

Meeting Minutes and Notes

- Approach is to get as many stakeholders involved as early as possible.
- Seeking feedback from any groups that SC feels must be involved
 - SC Member: who is going to be responsible for this initial contact?
 - Chuck Kurnik: balance depending on the audience. Some from DOE, some from NREL, some from Cadmus, some from steering committee
 - Carla: important for the SC to be reaching out as well.
 - SC Member: do we think anyone will be fundamentally opposed? What about against specific details and who will try to hang this up indefinitely?
 - Carla (aside): have been most worried about the EM&V consultants who think this may be taking away business.
 - Once it is peer-reviewed, regulatory turmoil goes down. If the protocols are accepted, then easier to adopt because uncertainty is less.
 - Approach: project representatives to present at industry conferences.
- SC Member: is industry review separate list from outreach list?
 - DOE perspective: who was going to use these documents?
 - Original vision would be professional evaluators. Instead of asking them to come up with the program, just say this is the program to follow.
 - SC Member: Site Specific Protocols being developed, they describe the capabilities required of the person doing the work. Skill Set.
 - What are the level of people associated with doing the evaluation?
 - Need to address that cost is not associated with doing the math, but with the implementation.
 - Marguerite: Asked if it would be worthwhile to look into workshops to train people?
- Usability/Accessibility :
 - Room consensus: stated that it needs to be available on the web – show up with the search. Make it show up close to the top.

1:15 to 3:30 Agenda Item 7: Breakouts: Implementation/roll out plan

- General questions raised from the perspective of utilities, program administrators:
 - What will my regulators think?
 - What will be the implementation cost?
 - Will tracking system have to change?
 - SC Member noted that tracking system is an underappreciated effort.
 - Do I have to change my business model?
 - If there were standard specifications, would there become standardized products?
 - Potentially, every tracking system doesn't need to be a one-off.
 - Room: Don't know the answer to that, but do know that without standardization, it is not possible. Don't know if standardized products would actually happen.

Meeting Minutes and Notes

- Stated that truly off-the-shelf cannot exist
 - Legacy systems, markets, regulations, but this could move towards similarities and base-programs.
- For co-ops, if I choose to use the alternative, are there consequences to that?
- SC Member: First thoughts are: what if the commissioners adopt this? Am I at risk? Then, if they adopt it, then I can accommodate the regulatory risk associated with it.
 - Noted that utilities prefer reducing regulatory risk.
 - Smaller utilities will be put at risk by cost/implementation if just starting it out.
- Regulatory compact changes with each new governor, majority. No such thing as true permanence in the regulated utility space. For utilities, know that there is a general direction you are headed. For CA, for example, the regulatory risk associated with the commission is terrifying to utility senior management.
 - Noted that no investor-owned utility indicates profit earned from energy efficiency in their release to the public, not because it doesn't exist, but because of regulatory risk associated with this.
- SC Member: recommend broadly that states adopt and use these and appropriate over a certain period of time in fairness to the reality that people can't change with a snap. Things that are already in motion can't change immediately.
- SC Member: program administrators – if this in anyway reduces what they thought they were going to claim, then that will be a big issue. On the positive side, for those third party contractors who do this work, having standardized data collection requirements in their program will make it more efficient to collect data between bidders if they are all collecting the same issue.
- SC Member: Questioned if the protocols could be placed into a RFP
 - Compare the bids – they will all be evaluating the same bid as they are collecting the same data.
- Bill Miller: alignment with forward looking goals.
- SC Member: often the reports from EM&V consultants aren't the most transparent.
- General questions raised from the perspective of commissioners:
 - Aligned risk between the program administrator and the utility commissioner
 - If you are a utility commissioner that options for what is not state of the art, not best measurement, then you place yourself that you aren't doing a good job of consumer protection.
 - Buy-in from all the different groups for the commissioners
 - Have to balance several issues – company's aspect with the consumer's aspect.
 - Need to have buy-in from a number of different groups
 - Illinois – statutorily prescribed. Concerns are more narrow.
 - Proposals that look good vs. litigation only because it is what the commission thinks they want, self interest in moving the ball.
 - Bill Miller: 12 months out, conceivable that state might pick up that the "starting point" is the "national uniform methods project".

Meeting Minutes and Notes

- Regulatory review of submittals goes down if you have consistency and peer-reviewed methods. More straightforward.
 - Don't want to see differences in methodology between different utilities in same state.
- With litigation, might have different records and decisions from one-state
- Elegance of solution is that it can be brought into the record so you have smaller differences in the decisions between dockets
- Chuck Kurnik: would there be a state that would be most likely to adopt this first?
 - SC Member volunteers Iowa
 - Consumer advocate is amenable
 - Important to have onboard- if you don't have them on your side and the AG's office, chances of success slim.
- General questions, initial reaction raised from the perspective of EM&V Consultants
 - Exciting in that they have a lot of new staff that started in <5 years, to have commonality so that the right hand is saying the same thing as the left hand important.
 - Having documents to share as a starting point.
 - Concerns about making the work a commodity. Why are "we" special,
 - Innovation that could come out, understanding of nuances. Building analysis isn't perfectly simple. The defining aspects will be how to bring expertise of one
 - Like most things: fact that you start out by inviting in most everyone under the tent and acknowledge their solution is a big selling point within the community.
 - SC Member: from talking to consultants – evaluators are tired of being in the middle of the bulls eye- not about who is gaming and who isn't. it is about advancing the cause of getting more efficiency done and not being the sand in the gears.
 - SC Member: if evaluators who consider themselves cutting edge – how do they keep themselves as cutting edge? if they are doing things that no one else is, how do they remain competitive and cutting edge?
 - SC Member: grows the market
 - SC Member: scope of work is now similar. The new topic is how they do work on top of that better: survey design. Different skillset from what road they are proposing to walk along. You know when they are competing in the marketplace that they are going to deliver the same answer the same way.
 - SC Member: driven top-down. My bid is based on best practice.
 - Hossein: SC Member makes good point – this may shift the focus of competitive advantage from "we are the only ones who understand this" to "we are the best ones who can implement this". Other areas of competition: Price, quantity, reputation, experience, and a whole host of other areas. Cadmus spent a lot of time explaining and justifying methods that we believe should be obvious.

Meeting Minutes and Notes

- Many of the top consultants have worked for each other, with each other, merged.
 - Takes a lot distraction away from the process.
 - How do competitors feel about Cadmus being “lead dog”. Is this a product of Cadmus:
 - Response: no. Ultimately something produced by DOE and NREL and all the contributors will be fully recognized. The competitors like to be part of this. Alternative: being left out is worse.
 - Marguerite: are there people who this will seriously disrupt their business models. ESCOS have historically have their own EM&V methods based on bilateral agreements with the utilities. A lot of this is not public. In a lot of cases, third party evaluation contractors are brought in after the fact to evaluate work.
 - SC Member: most ESCOS are at least regional, commercial. Would appreciate knowing that they will be asked for the same data sets presented the same way from all the various utilities.
 - Reputable ESCOS won’t see a problem with it.
- General thoughts and questions from perspective of resource planners:
 - SC Member: want to know, are the algorithms right. If they are right, then yes, I want to use them.
 - Chuck K: what would give you confidence that they are right?
 - SC Member: don’t know if the current is right. If it were easy to measure energy customers weren’t using, then we would do that....
 - SC Member: has to be based on baseline that is credible. Have to think through the process as to how to compare the savings.
- Bill Miller: when a large number of efficiency estimates surfaced in California, were dismayed when trying to explain why the numbers were different . Could see the vetting process. In some level, however it turns out that there is a systematic bias of 5%, as a resource planner I am prepared to do that with all the other numbers I see coming into my forecast. Methodological prescription that everyone who is feeding me numbers is using.
- SC Member: Going to be important that the ISOs are going to look at critique it. Don’t want inconsistency
- Want to be able to point to and understand which methods are being used.
 - Long term energy efficiency forecast; what is the data based on.
- WCC doing similar work. If you know as a transmission planner estimates are equivalently reliable across the 14 states, want to have some idea of what numbers are credible so that they are uniform across the area so that from a transmission point of view, it is a big deal because of seasonal exchanges and other things. Need some level of comfort that those numbers aren’t just drawn out of a hat. Have to try to roll-up efficiency forecasts. All done differently.

Meeting Minutes and Notes

- Marguerite: Raised question that given what is being said about the different contingencies, what is the best process moving forward? few protocols at a time, complete set, few with feedback, test cases, one specific state?
 - SC Member: have to hit a representative group with a compelling case approach for it. Even if not all protocols are completed, need to have 1 compelling case that brings everyone together and creates a desire to support the effort.
 - SC Member: don't want to roll it out in too many chunks.
 - SC Member: if we have high-value protocols because they represent high value/percentage of savings because they represent the needs of everyone
 - Be able to target the big stuff first (commercial lighting, refrigerator recycling)
 - Understanding of where the savings are coming from.
 - 80/20 rule applies.
 - SC Member: before you roll out the protocols, want to make a case for why this important. Just to clarify, we are going forward with developing something; introduction needs to say why this is important.

3:45 to 4:30 Agenda Item 8 Select measures for Phase 2

- Choice of options to be distributed to Steering Committee: Limiting to residential and commercial standards. Because of similar efforts between ISO 50001 for industrial. Maybe industrial in phase 3.
 - Carla: our thought on what we could do, but could get feedback on this approach
- Need to select 10-15 measures/programs for Phase 2: goal to capture 80% of portfolio.
 - May decide that they can capture 80% of the portfolio with 5 measures, but anticipating 10-15.
 - Not going to go through all the measures here, but think about from SC perspective which ones you feel that the priorities should be placed.
- Room discussion on code vs. market practice. Role of implementation. Industrial programs.
 - Cal experience: investor owned would work with state body to establish the building code. Utilities funded analysis. Brought before the commission. Publically advocate for the code upgrade when it came out, plus local stretch code.
 - Range of activities that there is an interest from NASEO as to how each utility may be able to get some credit. From state perspective, funding for code programs is diminishing.
 - Behavioral is seen as one-bucket, break into two
 - Education outreach experts (marketing, education, outreach)
 - Promoting conservation values.
 - Experimental designs.
 - Value to and credit for savings that come out of more structured programs.

Meeting Minutes and Notes

- Focus on industrial behavior: it is a big chunk of the savings and there is not a ubiquitous protocol for this function.
 - Carla: Superior Energy Performance (SEP), plant level continuous improvement. Lots of space to do more. Plant level – measures and behavior. Interactive.
- Bill Miller: discussion of SEP program – commercial and industrial branch. Connects to Better Buildings challenge which is also somewhere at DOE.
 - Interesting to disentangle. 500001 is period against period, year against year. Often it is bringing down usage per unit of output – far different than total usage.
 - SEP is mapping into Portfolio Manager score. Target usage reduction. Period to period trajectory. Under a mandate to go forward, will emerge, not sure about state level interest in downward sloping programs.
 - Question for evaluators across the country: rank ordering the protocols that are being used for these various approaches.
 - Leverage for where there is large discrepancy between the units
 - Extent where the earlier study showed the variability in technical manuals – if there is high difference in valuation in factor differences then you can see a lot of value add in creating the method.

4:30 to 5:00 Agenda Item 9: Next Steps

- Mike Li: very appreciative of the time that you put into this and the thought into helping figure this out. There are a lot of question that are unanswered with regard to net to gross.
- Chuck Kurnik: Also extended thanks. New ideas from thoughts, reactions. Useful.
- SC Member: Very good discussion. Lots more occasions to discuss particulars of the protocols. Good to get a feel for where everyone was coming from. Lots of points of view here. More opportunities to interact moving forward.
 - Felt it was good to sit down and talk once you have something to talk over. Get together after you have something in front of you that you can talk about
 - Role-playing perspective. Good to see from their own point of view. How they would look at something.
- Need to pull out net to gross discussion from the UMP discussion. Still need to decide how we are going to handle it.
- Role of NTG – methodological issues on that side as well as policy question. Keep them separate. It really is not all policy issue.
 - Without a credible methodology for NTG you can't even raise the question.
 - Is baseline part of the gross savings calculation or not. Couple of different viewpoints. Illinois commission interested in both of them. Standards based and market based. Gives an understanding of the value of the standards. If things are set as a percentage of baseline then it reduces the discussion of the change in the net to gross policy. Then whatever happens to the policy questions is less conflicting.

Meeting Minutes and Notes

- Social condition: back in the day, no force in the town but the program – easy to ask the question would you have done it anyways. Now that cultural contact is so pervasive, harder to get a true answer to the question of what would have happened without the program.
- Hossein: NTG comment – need to separate the methodology from the policy. Some overlap: need to know that to some extent policy decisions are made in that this may not be measurable. Without some discussion of the uncertainty of the estimates given .
- Summary of the level of communication, who we are going to tie in, efforts like that. Tactics within the communications program. Need to work on the value of who are the specific people, groups to approach.
- Carla: words of thanks From EERE – great to participate today and other days. Look forward to end of the year when rolling out the protocols.