# PA Preliminary Review of Common Sector Metrics: Public Sector and WE&T
June 21, 2017

# Introduction

The Program Administrators have informally met to discuss implementation of the CPUC-suggested common metrics, from the *Administrative Law Judge's Ruling Seeking Comment on the Energy Efficiency Business Plan Metrics* (May 10, 2017); hereafter, the "Metrics Ruling."

The objective of the PA meeting was to:

1) Clarify wording of the CPUC-suggested common metrics so that they are acceptable to all PAs,
2) Document whether and how common metrics could be operationalized consistently across all PA, and
3) Identify metrics that need additional data and/or discussion.

The PA-proposed sector-level metrics were developed by each PA under the Metrics Framework (CAEECC, August 30, 2016). These metrics were identified by each PA as ones that would be "used and useful" for their needs to manage and report on their respective Business Plan portfolios.

The Metrics Ruling identified additional "common" metrics to be added to each PA's Business Plan, to:

- Consolidate metrics around common problems identified by most program administrators for each sector,
- Enable consistent tracking and progress assessment for the whole sector,
- Enable comparisons across and within sectors, and
- Enable tracking of high-level portfolio progress over a period of time.

To support the CPUC's needs for common metrics, the following tables summarize the PA's preliminary review and discussion of how to operationalize these common metrics. In some cases, PAs suggest that the language of the common metrics be clarified or modified. In other cases, the PAs suggest that additional data or discussions with stakeholders would be needed before the metric's feasibility or usefulness could be determined. The remaining metrics are ones that PAs suggest may not be feasible

for all PAs. Note that this summary does not necessarily reflect the views of all PAs, and is intended to facilitate productive discussion.

This review is preliminary and intended to support public discussion of common sector metrics through the CAEECC workshop process, second session scheduled for June 30, 2017.

This review did not address any PA-specific sector-level metrics. Each PA is expected to review their own reporting and management needs, and consider whether their revised PA Business Plan metrics should include any additional sector-level metrics. The final set of revised metrics are expected to include:

1) A set of common sector-level metrics to support the CPUC's need to report on sector-level achievements, and
2) Any additional PA-specific sector-level metrics to support the PA's needs to manage and report on Business Plan achievements.

The metrics language in these tables is to be considered draft only, to facilitate discussion with stakeholders through CAEECC and other workshops. All comments and suggestions are welcomed.

Comments for the Codes & Standards and Emerging Technologies Program common metrics will be submitted to CAEECC separately.

# Public Sector

| CPUC Common Problems and Metrics | Public Clarifications and Comments |
|---|---|
| **Capturing energy savings - Total**<br><br>Annual gas, electric, and demand savings | Updated proposed metric with clarifications/revisions:<br>• *First year annualized reported savings, gross and net*<br><br>Comments:<br>• The language above is as discussed in the Commercial sector during the CAEECC Ad-Hoc meeting on 6/14/17<br>• Targets for IOU-PAs from Potential and Goals Study using specific methods to draw out public sector. (Commercial Sector currently includes Public Sector.) Breaking out Public Sector is currently different across PAs (e.g., Mapped energy use within building types to Public Sector and took as a percentage of Commercial.) Need to agree upon a common simplified approach (e.g., 15% of Commercial) or some other approach. One example given, 93% of K-12 falls to Public, but utility just mapped all K-12 to Public.<br>• RENs have non-resource efforts to procure energy management software (MCE does not have anything). |
| **Capturing energy savings – Sector %**<br><br>Annual gas, electric, and demand savings as a percentage of overall sectoral usage | Updated proposed metric with clarifications/revisions:<br>• *First year annualized reported savings, gross and net as a percentage of 2016 sectoral usage*<br><br>Comments:<br>• Discussed in the CAEECC Ad-Hoc meeting on 6/14/17meeting. Using 2016 as baseline year will be considered by CPUC staff, but there was no resolution during the meeting. |
| **Depth of interventions - Project**<br><br>Energy savings (kWh, kW, therms) per project (building)) | Updated proposed metric with clarifications/revisions:<br>• No updates yet because need further discussion<br><br>Comments:<br>• The PAs are continuing to discuss the possibility of obtaining savings by project or by building.<br>• Only for downstream programs, so may be better as an Implementation Plan metric.<br>• We know that the finance group is also working on a "depth of intervention" metric. Further discussion may be needed once that metric is drafted.<br>• Same question as for Commercial Sector: Is "project" defined as "by application"? |

| CPUC Common Problems and Metrics | Public Clarifications and Comments |
|---|---|
| **Depth of interventions - SqFt**<br><br>Energy savings (kWh, kW, therms) per square foot | Updated proposed metric with clarifications/revisions:<br>• No updates yet because need further discussion.<br><br>Comments:<br>• The PAs do not collect square footage from participants at this point, but could moving forward. However, the PAs' experience with reliability of square foot data is that this is very poor (provided by customer when it is available at all) and the cost of collecting the data and then ensuring high quality may be high.<br>• Additionally, one PA reached out to an implementer and received this information (underline added for emphasis): "The burden would be placed on our efficiency auditing staff. The result would be more time committed to unessential tasks and less staff hours committed to project scope development and efficiency sales. <u>This formula leads to higher non-incentive payment requirements and decreased savings delivery</u>."<br>• There is the possibility of studying how to cost-effectively capture square footage and ensure quality, but this may mean that the metric would not be available until this process is known and adopted by PA.<br>• It would be difficult to set a baseline or good targets because of lack of historical information and uncertainty around volatility of the value.<br>• Only for downstream programs, so perhaps more appropriate as an Implementation Plan metric<br>• We know that the finance group is also working on a "depth of intervention" metric. Further discussion may be needed once that metric is drafted. |
| **Penetration (% SqFt) of energy efficiency programs in the eligible market**<br><br>Percent of square feet of eligible population | Updated proposed metric with clarifications/revisions:<br>• No updates yet because need further discussion with the larger group that include the CPUC<br><br>Comments:<br>• All the same issues as described above for the energy savings per square foot.<br>• If the source of eligible square foot is purchased, the PAs recommend that the square foot within eligible population remain static over the business plan years to reduce costs. If the source of eligible square foot is from the CEC, the PAs note that the square foot cannot determine square footage for government buildings and therefore the eligible population for commercial and public would not be clear. |

| CPUC Common Problems and Metrics | Public Clarifications and Comments |
|---|---|
| **Penetration (% participation) of energy efficiency programs in the eligible market**<br><br>Percent of participation relative to eligible population | Updated proposed metric with clarifications/revisions:<br>• No changes proposed, keep wording as shown to the left.<br><br>Comments:<br>• The PAs continue to discuss specifics on who is a participant (e.g., is a participant an account, a unique combination of known IDs such as premise and account).<br>• Eligible population = everyone flagged as Public in the customer database; need to discuss which NAICs codes. NAICs codes could have an issue. The PAs continue to discuss ensuring that all have the same definition of public (and therefore who is included in the eligible population). |
| **Cost per unit saved**<br><br>Levelized cost of energy efficiency per kWh, therm, and kW | Updated proposed metric with clarifications/revisions:<br>• Levelized cost of energy efficiency per kWh, therm and kW using the PAC test<br><br>Comments:<br>• Not all PAs have costs by $/kW |
| **Investment in energy efficiency**<br><br>Dollars of investments (all sources) | Updated proposed metric with clarifications/revisions:<br>• No updates yet because need further discussion with the larger group that includes the CPUC.<br><br>Comments:<br>• During the commercial meeting with the PAs and CPUC at the CAEECC Ad-Hoc meeting on 6/14/17, the CPUC staff indicated they were going to confer among themselves and get back to the PAs regarding the need for this metric. If needed, the CPUC staff were going to clarify the intention and what the "investment in EE" would include. |

| CPUC Common Problems and Metrics | Public Clarifications and Comments |
|---|---|
| **Energy intensity - Benchmarking**<br><br>Percent of square feet of eligible population benchmarked | Updated proposed metric with clarifications/revisions:<br>• No updates yet because need further discussion with the larger group that includes the CPUC.<br><br>Comments:<br>• During the commercial meeting with the PAs and CPUC at the CAEECC Ad-Hoc meeting on 6/14/17, the CPUC staff indicated they were going to confer among themselves and get back to the PAs regarding the need for this metric. During the meeting, both CPUC staff agreed this may be a better program metric.<br>• If the CPUC staff indicate this metric should be kept, public has the same comments as commercial as follows:<br>• Benchmarking is as defined in AB802.<br>• Eligible population are buildings over 50,000 square feet.<br>• The IOU-PAs will know what buildings are being benchmarked in their service territories (because the customer is asking for data). However, this information is a one-way flow (from the IOU to the customer) and may not capture customers who use hard copy billing statements to input data. As such, the IOU will not know the square foot benchmarked, just the approximate number of buildings.<br>• Should this metric move to being the number of buildings benchmarked in the service territory? (i.e., a market value, not a program value)<br>• The CEC is capturing similar information – should the IOU-PAs duplicate the information from the CEC?<br>• If kept, the PAs will need to purchase information to estimate the number of buildings (or square foot) is in their service territories that are over 50,000 square feet in size.<br>• If kept, the numerator could be only those buildings benchmarked through a PA program, which would need to be part of any program application form. |

# WE&T

| CPUC Common Problems and Metrics | WE&T Clarifications and Comments |
|---|---|
| **Leveraging effective partnerships\***<br><br><br>Number of partnerships by ~~sector~~ workforce segment (defined by curriculum developed jointly + agreement)<br><br><br><br><br><br>\*WE&T recommends that this category change to "Expanding WE&T Reach via Collaborations" | Updated proposed metric with clarifications/revisions:<br>• Percentage of collaborations to deliver on specified outcomes (presented in the context of the workforce categories and the documented outcome of collaborations)<br><br>Comments:<br>• The PAs are presenting alternative metrics that can be controlled by the PAs because of concerns around setting targets for the number of organizations that will be willing to partner, which is unknown. Even with a definition of a "partnership" or "collaboration," setting a specific target number may be somewhat random since some collaborations are more resource-intensive than others depending on the desired outcome, stage of the collaboration, and/or collaborator.<br>• Cannot use terms with legal meanings (such as partnerships and MOUs), so modified to "collaborations" and "collaboration agreements."<br>• "Collaborations" will need to be defined.  The WE&T program employs different types of collaborations that reflect the different types of relationships with partners, and likely different outcomes or benefits. Initial suggestion for a definition: Collaborations will have documented agreed-upon outcomes of the collaboration such as jointly developing teaching materials, training trainers, providing WE&T curriculums or trainers for use by partner, or co-funding efforts. All collaborations will leverage partner organizations in some way. |

| CPUC Common Problems and Metrics | WE&T Clarifications and Comments |
|---|---|
| **Penetration of training and diversity of participants**<br><br>Number of participants by ~~sector*~~ workforce segment | Updated proposed metric with clarifications/revisions:<br>• Number of participants by pre-defined workforce categories (occupations, industry, etc--i.e., engineers, architects, HVAC technicians, building operators.)<br><br>Comments:<br>• May need to add language to show priority categories<br>• Workforce segment = job categories as currently collected through the common registration form for trainings. There are currently 25 categories (see Appendix A).<br>• Would like to discuss issues around setting mid- and long-term targets for each category. Could do on a short-term basis during program planning based on the focus, direction, and budgets of each PA as they developed their WE&T plans. Unable to set mid and long-term targets at this time that are meaningful. Would that make this a program-level metric?<br>• Could also determine high priority areas for a period of time and set targets for those areas. |
| **Penetration of training and diversity of participants (cont.)**<br><br>Percent of participation relative to eligible target population for curriculum | Updated proposed metric with clarifications/revisions:<br>• Percent of participation relative to eligible target population for *training [focused on high-priority occupations doing high EE potential work.]*<br><br>Comments:<br>• Difficult to set meaningful targets by each job category. Would this be combined for all *targeted* categories based on WE&T plans?<br>• Changed curriculum to training<br>• Not yet able to report on a metric like this because don't have data on eligible target populations. Would need to look into whether there are good estimates of the eligible populations by job category/workforce segment; or whether additional studies are needed. WE&T can look to the EDD data and seek alignment. Targeted geographies might also be smaller than full IOU territories. |
| **Penetration of training and diversity of participants (cont.)**<br><br>Percent of disadvantaged participants trained (identified by zip code or census tract) | Updated proposed metric with clarifications/revisions:<br>• Percent of disadvantaged participants trained (*specific definition for disadvantaged still under discussion*)<br><br>Comments:<br>• WE&T is focused on the worker. The PAs await the Commission's definition of "disadvantaged" and the application of that to workers in the WE&T sector. |

| CPUC Common Problems and Metrics | WE&T Clarifications and Comments |
|---|---|
| **Impact of training**<br><br>Number of participants who report they applied the training annually | Updated proposed metric with clarifications/revisions:<br>• Number of participants who report that they *intend* to apply the information and/or skills from the training (i.e., how likely are you to use the information and/or skills from this course)?<br><br>Comments:<br>• This would be based on self-reported information from one or two existing questions (e.g., likelihood to use the information from the course) in the current exist surveys. PAs will coordinate to see how closely these questions matched in 2016/17, and whether the questions need to be adjusted and/or standardized further to gather information for the CPUC.<br>• Above proposed metric removes annually and includes clarification of *intend*<br>• Remove "annually" or clarify what is meant by "annually"?<br>• As written at left, it's more appropriate for EM&V |
| **Impact of training (cont.)**<br><br>Number of projects implemented in applying the training annually | Comments:<br>• As written at left, it's more appropriate for EM&V<br>• Number of projects isn't the best metric given the complexity of data collection and data tracking (3 HVAC technicians working on the same project; 1 large commercial multi-year project vs. multiple 1-week HVAC technicians projects, etc.)<br>• Recommend removing and using the first "Impact of training" metric above. This metric requires information about future projects, which would not be known at the time of the exit surveys. Projects can also overlap when multiple trainees are working on the same projects. This type of data may be useful to collect in future EM&V studies, but perhaps not appropriate for tracking. |

# Appendix A: WE&T Workforce Categories

There are currently 25 common workforce categories. To operationalize this metric, WE&T would need to combine and/or prioritize the ones where PAs are setting targets?

1. Architect / Designer
2. Bldg. Dept. Inspector
3. Bldg. Dept. Plan Checker
4. Building Operators/Plant Manager
5. Carpenters
6. Electricians & Electrical Contractor
7. Energy /Sustainability Consultant
8. Energy Manager
9. Engineer
10. Equipment Manufactures & Sales Rep
11. Facilities Manager
12. General Contractor
13. HERS Rater
14. Home Performance Contractor
15. HVAC / Mechanical Contractor
16. HVAC / Mechanical Engineer
17. HVAC Technicians - Commercial
18. HVAC Technicians - Residential
19. Lighting Contractor
20. Lighting Designer
21. New Construction Builder/Developer
22. Plumbers/Pipe Fitters
23. Sheet Metal Worker
24. Solar Contractor
25. Stationery Engineers