

Coalition for Energy Efficiency
Comments on Portfolio and Sector Metrics
(Submitted for discussion at June 30 Business Plan Metrics Workshop)

General Comments on Portfolio Metrics:

For the vast majority of metrics, the Business Plans simply state that the metric will be established in the implementation plan without providing any guidance for what those metrics will look like.

- CEE does not agree this is sufficient.
- The business plans need to set global metrics to ensure that implementation plans as a whole meet the portfolio and sector policy objectives set by the Commission and the legislature.
 - The Commission needs to be able to assess what percentage of the overall energy efficiency programs will address which specific policy objectives.
- For example, the Business Plans already set portfolio metrics for meeting the requirement to increase the number of third party programs by setting a minimum target percentage that must be met each year.
- Portfolio metrics should also be established for meeting: (1) AB 802 meter-based verification requirements; (2) installation quality and workforce standard goals; (3) demand response goals; and (4) goals to ensure that workers from disadvantaged communities are participants in the economy created by these Business Plans.
- Without guidance in the Business Plan, the IE, PRG, CPUC staff and stakeholders will have no basis on which to assess if individual proposed programs and implementation plans are adequately addressing Legislative and Commission goals when looked at collectively.

Low-Income and Disadvantaged Communities Access to EE Economy

- Specific goals and metrics need to be identified to ensure that workers from low-income, minority and disadvantaged communities are actually participating in the multi-billion dollar energy efficiency economy created by the Business Plans.
 - **Proposed Metric:** The percentage of incentives verified to have been installed by contractors that have demonstrated a commitment to provide middle class career pathways to workers from low-income, minority and disadvantaged communities (e.g., through adoption of workforce diversity and inclusion goals or through a contractual agreement to hire through state-certified apprenticeship programs, community colleges or other local or state organizations that have a proven track record of training and providing career opportunities to workers from low-income households and disadvantaged communities and those with barriers to employment.)
- Some of the metrics proposed by CPUC staff may also be useful, but the metrics referring to “workforce segments” need to clarify that workers from disadvantaged communities is one of the “workforce segments” that need to be tracked.

Workforce Education and Training (WE&T)

- The WE&T proposals are inadequate because they fail to move beyond counting the number of class attendees as a metric of success.
 - Metrics based solely on the number of persons trained should be avoided because they fail to assess training outcomes.
 - WE&T metrics need to track outcomes for both the workforce (i.e. placement in career track jobs) and outcomes in improving the performance of energy efficiency installations in the field.

- This requires tracking beyond completion of an individual WE&T course.
 - Individual WE&T programs often provide only one piece of the knowledge, skills and abilities needed to ensure quality installation.
 - Without aligning these programs with completion of broader *occupational* training, certification, apprenticeship and accredited degree offerings, there is little indication that the WE&T program will successfully result in quality installation outcomes.

- The California Community Colleges Office of the Chancellor has additional written comments on WE&T metrics that are attached.
 - The Coalition for Energy Efficiency supports the Community Colleges comments and their proposal for more meaningful outcome based metrics.

Workforce Standards

Metrics for workforce standards need to be included in the Business Plans because little progress has been made on this goal since the CPUC first directed the Utilities in 2008 to ensure that skilled and trained workforce is engaged to perform energy efficiency work.

- Studies have shown that HVAC and lighting control measures in particular are failing to achieve their energy efficiency savings potential due to poor installation by workers who lack adequate training, experience and knowledge.
 - The Business Plans acknowledge that the majority of HVAC installers don't have the technical knowledge, skills, or abilities to properly install systems.¹
 - A study for the California Energy Commission reported that up to 85% of replacement HVAC systems were installed or designed incorrectly, resulting in substantial unrealized energy savings.
 - Large gaps between expected savings and realized savings have also been found in lighting control systems due to poor installation.

¹ See SCE Energy Efficiency Business Plan 2018-2025 at p. 63 (stating that there are a limited number of contractors who are even able to implement industry standards for HVAC quality installation); see also SDG&E at p. 216 (“trade professionals don’t have the technical knowledge, skills, or abilities to meet SDG&E’s savings goals”); PG&E Business Plan, Residential Appendix at p. 30 (finding “high failure rates for job performance on routine tasks” and finding that “less than half of HVAC technicians operating in California are aware of the Air Conditioning Contractors of America (ACCA) standards for work quality”).

- The Guidance Decision for the Business Plans expressly states that the *Business Plans* need to “to address the issue of ensuring and continuously improving workforce and installation quality for energy efficiency measures” and to address the prior Commission directives on this issue.
- In addition, the recently revised Existing Building Energy Efficiency Action Plan Update expressly recommends that PAs incorporate contractor and workforce standards into the energy efficiency program.
- Portfolio-wide metrics need to be adopted in the Business Plan to ensure that implementation plans actually address this issue.
 - These metrics should set forth specific goals such as requiring that by 2019, 30% of incentives are verified to have been installed by a skilled and trained workforce. With percentages increasing annually.
 - Verification should be based on compliance with one of the DVC Workforce Guidance Plan recommendations for increasing the engagement of a skilled and trained workforce.

Installation Quality

Past CPUC decisions have recommended that Business Plans include metrics to track measure installation quality over time.

- SoCalGas proposes a metric of “increasing the number of properly installed and maintained HVAC systems by 15% over 2015 levels by 2025.”
 - But none of the other Business Plans propose any metrics for measuring installation quality over time.
- While the Coalition agrees with SoCalGas that the Business Plans should include specific metrics to ensure that installation quality is actually addressed in the implementation plans, this metric is arbitrary and meaningless as proposed.
 - No meaningful baseline exists on which to apply the proposed goal of a 15% improvement.
 - Currently, incentivized HVAC installations are not required to ensure installation quality.
 - In response to CEE’s initial data request, SoCalGas was unable to provide a coherent explanation for how existing or future installation quality levels would be determined.
 - When asked again in a follow-up data request, SoCalGas stated that its installation quality levels would be measured by “program participation levels.
 - SoCalGas claimed that its general requirement that program participants comply with code requirements would be sufficient to ensure that HVAC systems were properly installed.
 - CEE strongly disagrees with this assertion that all HVAC systems installed under its incentive programs are installed properly. This claim is

conclusory, lacks any evidentiary support and is contradicted by numerous studies including the UCB-DVC Workforce Guidance Plan.

- Moreover, this claim makes no sense. If SoCalGas is claiming that all HVAC systems installed by program participants are installed correctly, then how does it propose to increase the number of properly installed HVAC systems under its programs by 15%?
- Even if a baseline of properly installed and maintained HVAC systems existed, the proposed goal of a 15% improvement over 10 years is risibly inadequate.
- A simpler and more meaningful metric for installation quality would focus on workforce standards.
 - Metric should ensure quality installation by requiring:
 - By 2019, 30% of all incentivized HVAC measures are verified to have been installed by an adequately skilled and trained workforce
 - By 2021, 50% of all incentivized HVAC measures are verified to have been installed by an adequately skilled and trained workforce
 - By 2024, 100% of all incentivized HVAC measures are verified to have been installed by an adequately skilled and trained workforce
 - Such a metric will also have better market transformation impacts since the same workforce will also install non-incentivized measures.

AB 802 meter-based verification.

Portfolio metrics should be adopted to ensure meaningful implementation of the AB 802 goal of increasing the percentage of energy efficiency incentives that utilize meter-based verification. Without a metric, the CEE is concerned that implementation of meter-based verification will be nominal and perfunctory.

- Each PA should set forth in their Business Plans goals and metrics for the minimum percentage of incentive measures whose energy efficiency savings will be verified by meter-based savings. (e.g. 10% by 2019, 20% by 2021.)