

Comments of the Natural Resources Defense Council (NRDC) on the
2009 Integrated Energy Policy Report (IEPR)
Assembly Bill 2021 Implementation

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I. Introduction and Summary

The Natural Resources Defense Council (NRDC) appreciates the opportunity to offer these comments on the issues discussed at the California Energy Commission’s (CEC) *2009 Integrated Energy Policy Report (IEPR)* committee workshop on the implementation of Assembly Bill 2021 (AB 2021) held June 9, 2009 and on the draft staff “*Achieving Cost-Effective Energy Efficiency for California: Second Annual AB 2021 Progress Report*,” June 2009 (Draft Progress Report). NRDC is a nonprofit membership organization with a long-standing interest in minimizing the societal costs of the reliable energy services that Californians demand. We focus on representing our more than 130,000 California members’ interest in receiving affordable energy services and reducing the environmental impact of California’s energy consumption. We provide our comments on the workshop and Draft Progress Report below and include for your reference a letter from NRDC to CMUA that includes our analysis of CMUA’s 2009 SB 1037 Status Report (2009 CMUA Report) and NRDC’s additional recommendations for improvements to future reports. As our comments below elaborate, we urge the CEC to add the following recommendations to the Draft Progress Report:

- Every POU should provide EM&V plans and studies, and verified program results in next year’s report. Only about one quarter of the POU’s had completed EM&V studies for the 2009 CMUA report.
- The POU’s should work with the CEC and interested stakeholders in preparing their efficiency potential studies and AB 2021 ten-year energy and demand saving targets, in order to increase consensus around the final targets. The POU’s should conduct a more rigorous assessment of the feasible potential for cost-effective energy efficiency than they did in 2007, and should use the following frameworks and input assumptions in conducting the potential studies:

- the Total Resource Cost (TRC) cost-effectiveness test;
- energy efficiency measure savings and unit costs based on either an existing credible resource such as the Database for Energy Efficiency Resources or other reasonable, documented, assumptions;
- avoided costs should include all cost elements including generation, transmission, distribution, and environmental costs, and should reflect the time-varying value of savings;
- a societal discount rate of 3% real
- The POU should provide detail on their methodology for determining feasible potential when they submit their AB 2021 ten-year targets, and they should include an estimate of the total net economic benefits (calculated using the TRC framework) for each utility from achieving the targets.
- Most POU did not comply with the CEC's request last year to provide information about procurement funding of energy efficiency programs. Each POU should identify in the next report the use of funds other than public goods charge (PGC) allocated to energy efficiency, and provide responses to the following questions to indicate whether they are using procurement funding to supplement the public funds charge to achieve all cost-effective energy efficiency: (i) How is energy efficiency accounted for in long-term procurement plans or integrated resource plans? (ii) What mechanisms are used to recover the costs of the energy efficiency programs? (iii) What portion of the public benefits fund is invested in: energy efficiency, low-income assistance, renewable energy, and RD&D? (iv) What percent of efficiency program funding comes from procurement budgets?
- The next SB 1037 report should include the following metrics for each POU in addition to the data currently provided: (1) total net benefits, (2) annual energy savings as a percent of SB 1037 projected savings and AB 2021 target, (3) annual energy savings as a percent of electricity sales, and (4) the portfolio average cost per kWh.
- POU with a TRC significantly higher than 1 should review their current energy efficiency program portfolio to determine where there is potential to expand the current portfolio or add new programs to reach deeper energy savings, and revise program designs, where appropriate, to avoid cream skimming and lost opportunities.

II. Discussion

NRDC appreciates the ongoing effort of the Energy Commission staff to continue the AB 2021 implementation process and for soliciting input from stakeholders.

Aggressively pursuing energy efficiency across the state will be necessary to meet California's goals of providing affordable, reliable energy services to customers while meeting the greenhouse gas emissions limits required under Assembly Bill 32. We

generally support the Draft Progress Report’s recommendations, but urge the CEC to significantly expand the recommendations to cover the issues discussed below.

1. NRDC urges the CEC staff to work with the POU’s to fully integrate energy efficiency into resource procurement investments as the law requires.¹

NRDC appreciates the increase in utility investments in energy efficiency programs over the past few years that have enabled the POU’s to significantly increase their energy savings and lower customers’ bills by hundreds of millions of dollars. We recognize the difficult financial climate that energy efficiency planners face today but continue to note that there are still significant energy savings to be captured and, as noted in the 2008 IEPR Update, the “public goods charge allocations for the publicly owned utilities are insufficient to achieve the savings needed to meet all cost-effective energy efficiency.”² In addition, we are concerned that the POU’s projected savings as reported in the 2009 CMUA Report will not meet their stated AB 2021 targets.³ (p. 14) This indicates that the utilities are not pursuing all cost-effective energy efficiency and will likely require additional procurement funding (above current public goods charge allocations) to achieve their AB 2021 targets.

We therefore continue to recommend that Commission staff work closely with the POU’s to fully integrate efficiency into their resource procurement plans and to identify procurement funding to supplement the public goods funding for efficiency (i.e. to redirect funds that would have gone to purchase more expensive supply-side power to the cheaper efficiency options). Moreover, as energy efficiency continues to be the cheapest, fastest, and cleanest resource that saves customers money on their energy bills, we recommend that the CEC offer assistance to and provide a forum for utilities to address the potential barriers they face when requesting additional funding to expand their energy efficiency portfolios.

As the Draft Progress Report notes, last year the CEC specifically requested that the POU’s “identify in their next report the use of funds other than PGC allocated to energy efficiency.” (p.12) However, only very few of the POU’s complied with this

¹ See attached NRDC Letter to CMUA June 30, 2009, p. 4-5 for a more detailed discussion on this matter

² California Energy Commission 2008, *2008 Integrated Energy Policy Report Update*, CEC-100-2008-008-CMF, p.48

³ AB 2021 targets and goals are used interchangeably

request. Without this information, the CEC may need to conclude that most POU's are not complying with AB 2021's requirement to treat efficiency investments as procurement investments. We support the CEC request for historic and forecast total public goods charge amount allocated to various energy efficiency programs, and urge the Commission to ensure that the POU's follow through with this request. (p.27) However, while this information is necessary, it is not sufficient for the CEC to evaluate whether the POU's are meeting the law's requirement.

We recommend that the CEC specifically renew its request that each POU identify in their next report the use of funds other than PGC allocated to energy efficiency, and provide the following information to indicate whether the utilities are in fact using procurement funding to supplement the public goods charge to achieve all cost-effective energy efficiency:

- How is energy efficiency accounted for in long-term procurement plans or integrated resource plans?
- What mechanisms are used to recover the costs of the energy efficiency programs?
- What portion of the public benefits fund is invested in: energy efficiency, low-income assistance, renewable energy, and RD&D?
- What percent of efficiency program funding comes from procurement budgets?

Moreover, while we are encouraged that the POU's intend to tap into the American Recovery and Reinvestment Act (ARRA) funds to capture additional energy efficiency savings, we want to emphasize that these funds are intended to *supplement* and not *supplant* existing funding mechanisms. Therefore, we recommend that the CEC work with the POU's to ensure that the utilities are using all available funding to pursue energy efficiency before accessing the ARRA funds. Furthermore, we recommend that the POU's include an analysis in the next SB 1037 report detailing how they first used all available public benefit funds and procurement dollars before using ARRA funding to enhance or expand their energy efficiency programs.

2. NRDC urges the CEC to continue working with the POU's to ensure they carry out a robust EM&V process that meets the law's requirement and industry-accepted standards for rigorous independent evaluation of energy savings.

We are encouraged to see initial progress that the POU's have made this past year towards expanded and improved independent evaluation, measurement, and verification, but it is clear the POU's still need to significantly expand their EM&V efforts to meet AB 2021's requirements. The Draft Progress Report discusses some of the activities the POU's have undertaken and provides a few detailed EM&V recommendations, but the Draft Progress Report currently lacks a general overview of the status of the POU's' EM&V efforts. As Table A-6 summarizes, only 10 of the POU's – approximately one quarter of the utilities – have completed EM&V studies. While a handful more have EM&V plans, this clearly indicates that the POU's need to focus on expanding their EM&V efforts over the next year. We urge the CEC to provide a high-level summary of the status of the POU's' EM&V efforts in its final report, and the CEC should also make it clear that it will expect EM&V plans and results from *all* utilities next year, which will be three years after AB 2021 became law.⁴

We support the CEC recommendation that the CFL distribution program should be targeted for the 2009-2010 impact evaluation. (p.28) A number of utilities include CFL distribution programs (e.g., CFL drop offs and free giveaways) that likely will result in lower installation rates than a more targeted lighting approach. Rigorous assessment of the savings associated with these (and all energy efficiency) programs is essential to ensure that efficiency measures yield *actual* savings that can be counted on as a procurement resource.

In addition, NRDC supports the CEC recommendation to ensure that updates to “source materials for the savings and cost-effectiveness model” be considered when the POU's revise their efficiency planning model. (p.28) This not only ensures that the POU's are utilizing the most up-to-date information when determining their actual energy savings, but it will also ensure a fair comparison across utilities (both public and investor-owned). Moreover, we continue to support the CEC's role in working with the utilities to ensure that the methodologies are thorough, transparent, and comparable to those used by

⁴ Not all utilities have developed an EM&V plan (p.14)

the California Public Utilities Commission to evaluate the investor-owned utilities' portfolios. Consistent, robust, and independent evaluation is critical to ensure that energy efficiency can be depended upon as a resource.

3. NRDC strongly recommends that the CEC urge the POUs to consistently report industry-accepted metrics to provide a more complete indication of utility energy efficiency savings and investment achievements.

NRDC appreciates the additional metrics that were presented by CEC staff at the June 9, 2009 CEC IEPR workshop and looks forward to seeing their inclusion in the final staff AB 2021 status report. While we are encouraged by the positive trends showing increased energy efficiency savings and investments as noted by a number of POUs at the June 9, 2009 CEC Integrated Energy Policy Report (IEPR) workshop, we emphasize here that in addition to trends, it is important to simultaneously measure their achievement relative to aggressive energy saving targets and industry benchmarks. This information indicates the level of utility achievement towards capturing all cost-effective energy efficiency savings and can be used to compare achievements across utilities.

We strongly urge the CEC to recommend that the POUs consistently report the following metrics for each POU in addition to the data they currently provide: (1) total net benefits, (2) annual energy savings as a percent of SB 1037 projected savings and AB 2021 target, (3) annual energy savings as a percent of electricity sales, and (4) the portfolio average cost per kWh which can be compared to supply-side procurement costs.

Both the Draft Progress Report and the CMUA Status Report provided new useful information this year on each POUs' annual investments as a percent of revenue. While the Draft Progress Report's Figure 2 provides a very useful comparison across California's POUs, we urge the CEC to also include a discussion and benchmarks to compare these utilities to the investor-owned utilities in California and best-practices across the nation. For example, the Draft Progress Report finds the POUs on average invested approximately 1.3% of revenues in energy efficiency (p.13), whereas highly aggressive program tend to invest 2% of revenues.⁵ Several POUs reported aggressive

⁵ See, for example, the following two reports by the American Council for an Energy-Efficiency Economy (ACEEE), which show that the top states invest more than 2% of revenues in energy efficiency. Eldridge, M. et al, *The State Energy Efficiency Scorecard for 2006*, ACEEE Report E075, June 2007.

levels of investments above 2% of revenues, but many POU have very low levels of investment and the POU average provides another indication that POU in aggregate have room to significantly expand their efficiency savings.⁶

All of these metrics yield considerable information and offer industry benchmarks to compare the level of utility achievement towards capturing all cost-effective energy efficiency. In addition, the cost-effectiveness metrics (total net benefits and portfolio average cost per kWh) can be extremely useful in explaining the significant benefits the POU's efficiency portfolios are providing to customers.

4. In advance of the AB 2021 goals update due next year, NRDC urges the CEC staff to work closely with the POU and stakeholders to ensure the next goals are based on a rigorous assessment of the feasible potential.

We appreciated the CEC staff and POU's collaborative efforts to develop the first ever energy saving targets under significant time constraints in 2007. While many POU set aggressive targets, unfortunately, some POU did not set aggressive targets or provide enough information for the Commission to assess the reasonableness of their targets. The POU will have had plenty of time to analyze their efficiency potential for the next targets they set, so the CEC should make it clear that it expects every POU to set aggressive targets to meet the laws requirement of capturing all cost-effective and feasible potential.

In addition, the CEC should ensure that all assumptions associated with the target setting process are fully transparent. Without a full understanding of the target setting process, it is difficult to determine whether or not meeting or exceeding a target is due to outstanding energy efficiency program implementation or whether the success is due to weak targets. Conversely, it is difficult to determine whether shortfalls are due to lack of performance or to targets that are unrealistic. We therefore strongly urge the Commission to provide clear guidance for improving the next POU target-setting process currently underway. *A collaborative effort to define expectations up-front can save all parties significant time and increase consensus around the final goals.*

Kushler, M. et al, *Meeting Aggressive New State Goals for Utility-Sector Energy Efficiency: Examining Key Factors Associated with High Savings*

⁶ See attached NRDC Letter to CMUA, June 30, 2009 p.5-6 for a more detailed discussion of POU metrics

Below we include an excerpt from our “*Analysis of California’s Publicly-Owned Utilities’ Ten-Year Energy Efficiency Targets*” dated January 9, 2008 (p.3-4) with our recommendations for CEC guidance to the POU’s to ensure a rigorous assessment of the feasible potential:

- ◆ Recommend that the POU’s conduct a **more rigorous assessment of the feasible potential** when they update their targets in three years, and require that the POU’s provide detail on their methodology for determining feasible potential as part of AB 2021’s requirement that the POU’s provide the Commission with the “basis for establishing [their] targets.”
 - ◆ **Provide clear guidance for improvements to the next potential study** the POU’s conduct. There are numerous decisions utilities will make about the analytical framework and input assumptions used to develop their energy efficiency potentials and targets. The Commission should clearly delineate its expectations that the:
 - **cost-effectiveness test** should be the Total Resource Cost (TRC) test;
 - energy efficiency **measure savings and unit costs** should be based on either an existing credible resource such as the Database for Energy Efficiency Resources or other reasonable, documented, assumptions;
 - **avoided costs** should include all cost elements including generation, transmission, distribution, and environmental costs, and should reflect the time-varying value of savings;
 - **discount rate** should be a societal discount rate of 3% real, consistent with the discount rate used by the Commission in evaluating energy efficiency standards, and in no case should be greater than the utility’s weighted average cost of capital; and
 - report should include an estimate of the **total net economic benefits** (calculated using the TRC framework) for each utility from achieving the targets.
5. **NRDC recommends that the CEC urge those utilities with TRCs that are significantly above 1 to analyze their energy efficiency portfolios to enhance or expand their programs in order to capture *all* cost-effective energy efficiency savings.**

Although we are pleased that the POU’s are developing cost-effective energy efficiency portfolios, the reported TRC of 3 indicates there is significant opportunity to reach deeper energy savings while remaining cost-effective, thereby further increasing the net benefits to customers. Indeed, some of the higher TRCs likely indicate “cream skimming,” where only the very cheapest energy savings are being captured while other significant energy savings remain untapped, which may result in lost opportunities at a

customer site to achieve deeper energy savings at the time that the easier energy efficiency upgrades are implemented.

NRDC agrees with the first staff AB 2021 Progress Report finding that “it is clear from the cost-effectiveness data...that POU programs can be further expanded to benefit their customers and society.”⁷ Therefore, NRDC recommends that the CEC work together with those POUs that have a TRC significantly higher than 1 to review their current energy efficiency program portfolio to determine where there is potential to expand the current portfolio or add new programs to reach deeper energy savings.⁸ Concurrent with this review, the CEC should work with the POUs to determine the amount of additional funding required to successfully capture these additional cost-effective savings, and urge the POUs to request that additional procurement funding be allocated to capture these additional savings opportunities.

III. Conclusion

Thank you for the opportunity to comment on the issues relating to the AB 2021 workshop and CEC Draft Progress Report and for considering our recommendations. We look forward to continuing to work with the POUs and CEC to capture all cost-effective energy savings for California.

⁷ Kae Lewis and Irene Salazar, *Achieving Cost-effective Energy Efficiency for California: An AB 2021 Progress Report*, California Energy Commission, Electricity Supply Analysis Division, CEC-200-20078-007, p.21

⁸ See attached NRDC Letter to CMUA, June 30, 2009 p.7-8 for a more detailed discussion on this matter