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Comments of the Sacramento Municipal Utility District On Senate Bill 350 Energy Efficiency Target Setting for Utility Programs

Additional submitted attachment is included below.

STATE OF CALIFORNIA
BEFORE THE CALIFORNIA ENERGY COMMISSION

In the Matter of:	Docket No. 17-IEPR-06
2017 Integrated Energy Policy Report	**RE:** Senate Bill 350 Energy Efficiency Target Setting for Utility Programs Draft Staff Paper

Comments of the Sacramento Municipal Utility District On Senate Bill 350 Energy Efficiency Target Setting for Utility Programs

The Sacramento Municipal Utility District (SMUD) appreciates the opportunity to provide these comments to the California Energy Commission (Commission) on the Senate Bill No. 350 (SB 350) Energy Efficiency Target Setting for Utility Programs Draft Staff Paper (staff paper)[1].

SMUD recognizes the difficulty of achieving the state's energy efficiency efforts as prescribed in SB 350, in particular the balance of reasonable targets and the need to revise business-as-usual energy use to meet the statewide goal. As SMUD has stated in previous comments, additional savings from the utility sector have become more difficult over time, as the most cost-effective and feasible reductions have been largely captured (e.g., more efficient lighting), and building and appliance standards have become increasingly more stringent. Despite these challenges, SMUD continues to develop new energy efficiency programs as opportunities arise, acknowledging that as the California Municipal Utilities Association (CMUA)/Navigant Potential Study demonstrates, there is a gap between technical and market potential, and these new programs might not be cost-effective or necessarily viable without large customer participation. Please revisit our comments submitted on June 30, 2017 (TN# 219995) under this proceeding for a summary description of these programs.

SMUD's comments below address some concerns regarding the publicly owned utility (POU) targets as well as the role of POU efficiency programs.

POU Energy Efficiency Targets

SMUD confirms that POUs' governing boards will establish POU-specific targets.[2] The Executive Summary of the staff paper provides that "[t]he legislation [SB 350]

[1] References to "staff paper" are to Draft Staff Paper, Senate Bill 350 Energy Efficiency Target Settings Utility Programs, Energy Assessment Division, July 2017, CEC-200-2017-005-SD.
[2] "Existing law requires a local publicly owned electric utility to identify all potential achievable cost-effective electricity efficiency savings and to establish annual targets for energy efficiency savings and demand reduction for the next 10-year period. … This bill would require local publicly owned electric utilities to establish annual targets for energy efficiency savings and demand reduction consistent with this goal." SB 350 (2015 – 2016).

specifically requires the California Energy Commission to set annual targets for increasing energy savings…" to achieve the "doubling" of energy efficiency as expressed in SB 350.[3] The crucial word missing from the staff paper is "statewide." SB 350 continues the previous Commission authority to establish *statewide* efficiency targets that were established via SB 1037 in 2005, while providing direction to the Commission that the new statewide targets established this year be aimed at a cumulative doubling of energy efficiency by 2030. SB 350 also continues the longstanding policy in Public Utilities Code section 9505(b) that it is POUs' governing boards that must adopt energy efficiency targets, continuing to indicate that these targets should be "consistent with" the statewide targets established by the Commission.

SMUD appreciates the recognition of this in the staff paper under the "Utility Governance" heading. Here, the staff paper provides, "POU energy efficiency savings goals are set by the locally elected boards and/or city councils that govern POUs."[4] However, the staff paper goes on to propose that the Commission "establish SB 350 targets for larger POUs identified as the Integrated Resource Planning (IRP) Group …".[5] The staff paper advises that SB 350 provided "… a modest expansion of Energy Commission oversight of POU energy efficiency efforts."[6] SMUD disagrees with the staff paper and points to the Commission's and POUs' governing board's historic roles in energy efficiency target setting, directing both to develop targets with some accounting of legislative direction for statewide doubling of energy efficiency savings by 2030. The exclusive authority to establish POU-specific energy efficiency targets rests with the POUs' governing boards. This does not mean, as acknowledged in the staff paper, that POUs themselves should be expected to adopt targets that double savings compared to recent projections. SMUD has previously noted that savings from utility programs are increasingly scarce, as savings from tighter building and appliance standards accomplish more of what is available.

SMUD understands that the staff paper does not establish at present any utility specific targets associated with "doubling" of energy efficiency. However, the staff paper describes "adjustments" to current POU [and Investor Owned Utility (IOU)] program savings estimates that will at some point affect how such targets are adopted by POU governing boards. The main adjustments of concern to SMUD are those that remove savings from codes and standards efforts from utility targets and that indicate all utility targets should be established on a "net savings" basis, for consistency (while acknowledging in a footnote that POUs may continue to use gross savings estimates for internal planning).

The changes proposed by the Commission in this staff paper, as they relate to net vs. gross savings and the exclusion of codes and standards from the utility programs; do

[3] Staff paper, p. 1.
[4] Staff paper, p. 7.
[5] Staff paper, p. 32.
[6] Staff paper, p. 33.

not align with the CMUA/Navigant Potential Study. Since SMUD's calculations of energy efficiency potential have been based on gross savings and include codes and standards, SMUD respectfully requests that the Commission consider a 3 to 5 year transition period for making adjustments such as these, so that POUs can modify their programs and planning efforts to reflect the new accounting expected. SMUD is currently fielding multi-year, third party-contracted programs that calculate rebates and performance payments based on gross savings. SMUD is uncertain that the contract will continue with the change to net savings. Further, the current momentum in SMUD's custom-calculated and deemed savings programs assumes gross energy savings, and the effort to update our internal and external processes to create an appealing net-savings based program would likely be substantial and time consuming.

Codes and Standards

While properly counting savings to avoid duplication is very important, the Commission should continue to allow utilities to include codes and standards savings in order to provide incentives for utilities to invest in codes and standards research and development. The staff paper indicates that the IOUs should continue to expect to fund codes and standards advocacy programs,[7] but without the ability to count these savings toward their targets, utilities would have an incentive to choose to pursue direct program savings instead of more cost-effective codes and standards savings, leaving carbon reductions on the table. The proposed interim ("… at least for this initial effort ..."),[8] policy on codes and standards savings appears likely to reduce utility incentives to pursue these programs.

Hence, the Commission should find another path to avoiding duplicative counting. The Commission could consider separating the utility targets into two parts, one for codes and standards and one for other utility programs. This would allow continued incentives for utilities to pursue codes and standards efforts under their overall targets. The clear and explicit delineation of codes and standards savings deriving from utility efforts could be "listed" as savings under statewide standards that are derived from utility efforts. This implies the other utility program savings targets would be lower, as these targets would only apply to the non-codes-and-standards portion of the overall utility savings goals.

Net vs. gross savings

SMUD appreciates the Commission's concern with addressing "free ridership" as it relates to the evaluation of energy efficiency. As noted in our comments dated June 30, 2017, SMUD largely uses **gross savings**, meaning the immediate impact of efficiency programs on retail sales or load, as opposed to net savings, which attempts to determine what savings are or would be attributable to program efforts over time. However, SMUD does estimate net savings for programs and appreciates the

[7] Staff paper, p. 12, FN 23.
[8] Staff paper, p. 12.

Commission's desire to establish a consistent, statewide baseline using net savings for purposes of assessing the statewide doubling of energy efficiency goal. SMUD believes that the proposed process will include starting with a utility baseline that is adjusted downward to reflect net rather than gross savings and requests Commission confirmation of that belief. As the doubling process unfolds, SMUD suggests that one goal should be to understand across all buckets that the savings are accounted for once, without any duplication.

In that regard, SMUD is unaware of exactly how the "remaining" part of gross savings, after net savings are identified, will be calculated by the Commission and included in the doubling of energy efficiency goal. When a SMUD customer adopts a program measure or activity, the savings that result from that activity are from existing conditions and behavior change to new conditions. If the Commission wants to determine how much of those savings are attributable to non-utility measures such as standards requiring efficiency improvements on replacement or just "price" or "market" effects, where consumers would choose the efficiency improvement in the absence of program impact, it should address how these savings amounts are also included in the doubling goal. SMUD does not believe it is necessarily appropriate to leave these savings out of the doubling scenario by assuming they are simply part of the normal demand changes over time.

Fuel Substitution

SMUD is supportive of the direction the staff paper takes regarding the need for demonstrable carbon savings and site energy savings for claiming fuel substitution credit under SB 350. However, we note several concerns with particular areas of the staff papers regarding fuel substitution.

Simulation Dispatch to Determine Hourly Marginal Emissions

While SMUD is supportive of the simulation dispatch approach for assessing marginal natural gas emissions values, there are at least two factors that should be considered. First, the nature of compliance with the Renewable Portfolio Standard (RPS) means that a utility will have to procure a certain amount of renewable energy to meet its annual percent requirement under the RPS. Even if in a given hour there happens to be more or less fossil units online, the RPS requirements are calculated on annual sales, imposing at least the minimum RPS requirement on any added electricity sales that result from electrification. The second issue is that in SMUD's experience, it can be challenging for production simulation models to accurately match observed market conditions. In particular, understanding over-generation conditions may require deep understanding of the electricity wholesale market constraints. Under-estimating the frequency of over-generation can devalue fuel substitution carbon savings and cost-effectiveness if these technologies can capture otherwise curtailed renewable energy.

Resource Mix

SMUD encourages the Commission to allow utilities to offer their own resource mix that may reflect a faster pace of renewable growth and/or a different set of non-emitting resources that may change the underlying natural gas based resources. In particular, for utilities that may be in a separate balancing authority than the California Independent System Operator (CAISO), such as SMUD, intra-balancing authority tariffs may constrain dispatch in a way that leads to a different emissions profile than if we were part of the same balancing authority. The Commission should allow utilities to submit their own simulation dispatch generated emissions profiles, so long as they meet certain technical requirements set by the Commission.

Technology Performance Requirements

SMUD is supportive of technology performance requirements. However, based on the analyses we have done to date, it appears under nearly all conditions we assessed, that the requirements for site energy savings and source greenhouse gas reductions are easily met based on commercially available heat pump technologies and the expected renewable mix of at least 50 percent carbon free over the life of the measure. We encourage Commission staff to evaluate the circumstances where fuel substitution may not meet these conditions; however, SMUD is concerned the staff paper alludes to a procedural and regulatory process that may take a significant amount of time for a question that may exclude a very limited set of programs. SMUD strongly encourages the Commission not to further delay utility fuel substitution offerings by developing a lengthy process for program certification.

Three Prong Test

SMUD notes that SB 350 does not require the Commission to consider the three prong test, as it directs the Commission to allow fuel substitution as a component of meeting its goals. The three prong test was established by the California Public Utilities Commission (CPUC), and it will be assessed as part of the referenced energy efficiency proceeding for those CPUC-regulated entities. As such, the Commission should not subject fuel substitution measures under SB 350 to the three prong test, particularly since that test is undergoing review and may be modified to ensure consistency with any potential CPUC-precedent set under their energy efficiency proceeding.

Credit for Fuel Substitution Programs

In the staff paper, the Commission poses a question regarding the appropriate utility to take credit for any fuel substitution programs. SMUD believes the utility responsible for implementing the fuel substitution measure, for procuring the change in effect, should be the utility that receives credit. Natural gas utilities are not excluded from running fuel substitution programs, but it is more logical for these programs to reside with electric utilities, as electric utilities will most likely see a greater nexus with carbon reduction, renewable integration, and electricity efficiency programs.

Projected Savings in Non-Utility Programs Staff Paper

With regard to the overall projections of fuel substitution savings found in the non-utility programs staff paper, SMUD notes that these savings forecasts are woefully inadequate toward helping the state reach its desired targets of reducing emissions 40 percent below 1990 levels by 2030. The savings forecast represents a tiny fraction of what other forecasts, such as E3 pathways analysis, suggest will be needed for the state to be on track to meet its long-term carbon reduction forecasts. SMUD also notes the Commission would do well to describe fuel substitution savings either in “site British Thermal Unit (BTU)” or “site megawatt hour (MWh)” net savings rather than describing gas savings in one million British Thermal Units (MMBTU) and electricity increase as negative MWh savings.

Hourly Savings Impacts

SMUD is concerned that the Commission may require reporting savings for all 8,760 hours per year. While we are working on capturing the energy savings in a more detailed fashion than the current annual savings approach, we have not developed an accurate way to determine savings on an hourly basis. Such hourly analysis is more useful for examining the immediate impacts of program choices on savings and emissions for ranking purposes. SMUD does not believe that hourly forecasts of program savings out through the year 2030 or beyond will be accurate or informative, and hence does not believe such reporting should be a requirement of this effort at this time.

Thank you again for the opportunity to comment.

/s/

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cc: Corporate Files (LEG 2017-0378)