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Ms. Rajinder Sahota
California Air Resources Board
1001 I Street
Sacramento, CA 95814

SMUD Comments on Proposed 2016 Cap-and-Trade Amendments

Thank you for the opportunity to submit comments concerning amending the Cap and Trade regulations, in response to the October 21st workshop. SMUD supports continuing California's leadership on climate issues by continuing reductions of GHG emissions beyond the 1990 level California is poised to achieve in 2020.

A. Energy Imbalance Market Proposal

SMUD supports the comments of the California Municipal Utilities Association regarding any changes in the Cap and Trade regulations to account for GHG emissions in the Energy Imbalance Market (EIM). This is a complex issue that would benefit from more time and thought prior to inclusion in the Cap and Trade regulation. Of the current options under consideration, SMUD believes that the proposed "Incremental Deeming" option is best (Option 2 at the California Independent System Operator technical forum). The California Independent System Operator (CAISO) has indicated that this option requires computational updates that will take some time to develop, and would not be ready for 2018 when the Cap and Trade modifications being considered are scheduled to go into effect. ARB and CAISO should focus attention on the development of this option, and consideration of whether any kind of action is necessary prior to the option being implemented. SMUD believes that no "bridging" action is really necessary for the one or two years prior to implementation (e.g. 2018 and 2019). Reducing GHG emissions is a long-term goal – any potential emission impacts from EIM operation for a couple of additional years will not measurably affect this goal. If ARB requires some accounting of this problem starting in 2018, SMUD suggests that Option 1 at the CAISO technical forum could serve as the basis for a bridging strategy.

B. Implementation of Assembly Bill 197

At the October 21st workshop, ARB staff discussed potential 15-day language regarding implementation of AB 197, which required some prioritization of "direct emission reductions" at covered sources as well as transportation sources. SMUD agrees that AB 197 does not preclude a Cap and Trade program, and believes that an extended Cap and Trade program will continue to lead to direct reductions at covered sources.

In particular, in the electric sector, complementary measures already in progress, such as increased attention to energy efficiency and the 50% Renewable Portfolio Standard, will clearly result in significant reductions in emissions from in-state electric power plants. The physics of the grid make it impossible to continue generation at present levels from fossil sources while pushing more renewable electrons at diminished electricity demand.

Offset Considerations: One suggestion discussed at the October 21st workshop was to reduce the offset limit. SMUD is opposed to such reduction. SMUD believes that the ability to use up to 8% offsets of compliance obligation will be an increasingly important cost-containment measure in the post-2020 period, when the sharply declining cap forces significant emission reductions at covered sources.

Rather than reducing the offset limit, SMUD suggests that ARB prioritize identifying and supporting offset projects that have significant environmental benefits, particularly where those benefits accrue to disadvantaged communities.

Treatment of Unsold Allowances: Another suggestion at the October 21st workshop was to consider retirement of "some or all" of the currently unsold State-owned allowances. Once again, SMUD is concerned that removing this commodity from the market could result in significant cost increases in the post-2020 period that will impact Californians and place AB 32-related costs into uncharted and politically unpopular territory.

At the very least, unsold allowances that remain off-market for some time should be placed in the APCR or allocated to the Voluntary Renewable Energy program post-2020, allowing continued market options to access those allowances. SMUD prefers that these unsold allowances should eventually be made available to the market at lower than APCR prices, when demand begins to challenge the supply of compliance instruments. SMUD suggests that the ARB simply change the vintages of allowances that remain unsold for a sufficient period of time, spreading them out over the later post-2020 years to hedge against the threat of high market prices. Cumulatively, the cap is still preserved and the total amount of GHG emissions to the atmosphere over time remains unchanged, as the problem with greenhouse gases is a cumulative, not an annual problem. This would simply be another modulating structure in the Cap and Trade program to reflect the "lumpiness" of emission reductions, which often depend on significant capital investments.

C. Allowance Allocation to Electric Distribution Utilities

SMUD appreciates the continued administrative allocation of allowances to electric distribution utilities (EDUs) on behalf of their ratepayers, as described in the October 21st workshop. SMUD generally supports the basic allocation structure included in

Option 1 and Option 2, with some exceptions. Of the two, SMUD believes that Option 1, with recognition of projected load changes over time, is most consistent with the underlying principle of allocating allowances based on "cost-burden". As explained below, SMUD believes that the ARB should go further to align with this principle, by updating allocations on an annual basis for load changes. This change would automatically include the shift of emissions caused by transportation and other electrification load growth as required by SB 350, while removing the necessity of developing a specific additional methodology to cover electrification. In addition, SMUD contends that:

- the basic EDU allocation starting point in 2021 should not be such an abrupt transition from 2020. One way to reduce this transition "cliff" would be to include some recognition of the investments made by EDUs and their customers in energy efficiency and distributed generation resources.
- the declining cap factor in the basic allocation methodology post-2020 is understandable, but including both the cap factor ***and*** moving to a 50% RPS in determining allocations for the electric sector results in a dramatic drop of allowances over time that is not consistent with cost-burden.
- removing allowances from the basic EDU allocation to reflect the carbon costs embedded in electricity used by covered industrial entities is unnecessary, problematic for POUs, and likely harmful to the industrial customers that are affected by the ARB proposal.

Extension of Option 1 "Cost Burden" Principle to Include Electrification Load Growth: SMUD appreciates the ARB staff continued consideration of adding allowances to EDU allocations to cover additional load and emissions from electrification. Broad substitution of electricity for combustion of fossil fuels is an essential measure for achievement of Governor Brown's goal of a 50% reduction in petroleum use in vehicles by 2030. It is well established that electrification will reduce GHG emissions because it would result in a greater decrease in emissions from the sectors or end-uses being electrified than the increase in emission from additional electrical load. Nevertheless, utilities might hesitate to spend heavily on electrification if their increase in emissions is not covered by allowances in the Cap-and-Trade program.

However, a proposal that requires metering of the additional load from electrification of transportation, or some equivalent demonstration of this load, is a barrier to rapid uptake of this technology. Most electric vehicles are currently charged at home, using a dedicated circuit or a simple normal outlet, neither of which is typically metered separately from the house as a whole. Requiring a separate meter for demonstration of the additional load would be an unnecessary expense. Electrification of other end-uses, such as water heating, space heating, etc. is considered necessary by many academic studies to achieve the State's long-term GHG goals. Once again, while likely less significant in magnitude than transportation electrification, it is not cost-effective to separately meter this load increase for purposes of demonstration of the load to receive allowances.

In both cases, for transportation and for other end-use electrification, SMUD suggests that the ARB move beyond the newly proposed Option 1 to include annual updating of sales within the "cost-burden" approach. SMUD's proposed allocation structure calculates the "cost-burden" as in the current structure and ARB staff's proposed structure for post-2020, by determining the proportion of sales for each EDU that is served by emitting resources (e.g. – generic natural gas), and providing allowances to cover that burden, ***while annually reflecting the changes in cost-burden that come from changes in EDU sales***.

SMUD's proposal has many advantages over the current concepts:

- It automatically reflects the cost-burden of increased electrification – in transportation as well as other sectors;
- It continues to properly account for the effect of legacy hydro or nuclear resources, as in the current cost-burden structures;
- It is consistent with, even based-on, ARB staff's proposal, but better reflects cost-burden;
- It continues to incentivize emission reductions because allocation is ***not*** based on actual emissions;
- It provides a relatively certain allocation of allowances for EDUs, as variations in annual sales from year to year are predictable and usually not dramatic;
- It reflects other sales-related changes in cost-burden, such as for EDUs that see differential sales growth.

In step form, SMUD's proposed allocation structure is as follows:

- **Step 1**: ARB Establishes a 2021 EDU allocation as follows:
  - Use each EDUs average hydro generation and projection of zero-emitting nuclear generation in 2020 (**same as ARB staff Options 1 and 2)**
  - Identify remaining sales supported by emitting resources, and the carbon "cost-burden" of that generation, using 2020 sales projections for each EDU and accounting for both natural gas and coal resources (**same as ARB staff Options 1 and 2**).
  - Provide initial allocation based on identified "cost-burden" (**same as ARB staff proposal**).
  - Adjust 2021 allocations upward to reflect the amount of projected energy efficiency and distributed generation contributing to reduced 2020 sales projections (**removing a implicit penalty and disincentive to continue to invest in EE or DG**).
  - No revision in allocations for covered industrial entities (**Differs from ARB staff Options 1 and 2)**.

- **Step 2**: Establish 2022 and beyond allocations as follows:
  - Continue to use average hydro, nuclear generation, and 33% renewables beyond 2021 (**change from ARB staff Options that include increase to 50% RPS)**;
  - Starting in 2022, identify remaining sales supported by emitting resources, and the carbon "cost-burden" of that generation, using the latest year of historic sales available for each EDU, and accounting for both natural gas and coal resources (**keeps closer to "cost-burden" than the ARB staff proposed method over time; automatically reflects changes to coal contracts**);
  - Adjust allocations upward to reflect each EDUs adopted annual target for EE and last-year installation of DG resources, in order to continue incentives for procuring these resources.
  - No revision in allocations for covered industrial entities (JUG position).

SMUD recognizes that this concept needs further discussion, and might include variations in one way or another. For example, reflections of the actual length of coal contracts could be included, to avoid penalizing terminating these contracts early. And, recognition of voluntary replacement of zero-emission resources that are retired with other zero-emission resources could be recognized, to avoid disincentivizing these kinds of decisions. In the end, SMUD believes that the structure has promise for widespread acceptance and is a simple, feasible method to account for the increased EDU cost-burden from electrification.

Abrupt Transition from 2020 to Proposed 2021 Allocations: The proposed allocation to EDUs in 2021, in either Option 1 or 2, is approximately 70% below the utility sector allocation in 2020. Since both the 2020 and 2021 allocations were based on "cost-burden" generally, and ARB staff has suggested that the 2013-2020 methodology and the proposed post-2020 options are "similar", it is difficult to understand why there is such a significant fall in allocations. This abrupt transition in 2021 is likely to cause some disruption in how EDUs participate in the Cap and Trade marketplace. The ARB should carefully examine the proposed post-2020 starting points and to understand exactly why they appear to lead to entirely different results in comparison to the last year of the previous period. The ARB should also consider a "phasing" of allocation in the initial post-2020 years in order smooth this abrupt transition.

One clear reason that 2021 allocations are significantly lower than in 2020 is that ARB is including a "true-up" of cost burden by starting with projections of that burden using the 2015 S2 forms, rather than the 2009 S2 forms that formed the basis for the 2013-2020 cost-burden allocation. It is true that statewide retail sales are now forecast in 2020 to be significantly less than the retail sales forecasts underlying the 2013-2020

allocations. Two of the main reasons for these lower forecasts are the significant investments in energy efficiency programs and distributed generation resources made by the EDUs and their customers. But cutting the allocation of 2021 allowances to reflect the reduced load that these investments caused is counterproductive. It represents an effective "penalty" for engaging in these state supported investments and a disincentive for continuing these investments. One of the reasons utilities invest in measures that will lower sales is to lower their carbon obligations, and cutting allowance allocations in response undermines this incentive. SMUD suggests that ARB include in the allocation methodology an added component that reflects investments in energy efficiency and distributed generation, to help preserve the incentive for investment in these technologies.

Note that this is different than the "early investment" structure that was included in the 2013-2020 allocation methodology. That component shifted allowances between utilities, based on differential investments in energy efficiency and renewables, but did not change the overall allocation for the electric sector. ARB's current proposal penalizes the entire electric industry for making these investments in good faith.

Declining EDU Allocations By Both Cap Factor and 50% RPS: One change ARB staff made between the earlier proposed EDU allocation methodology and the current Option 1/Option 2 proposals is the inclusion of allowance allocation reductions over time for both the cap factor reductions ***and*** the RPS increase from 33% in 2020 to 50% in 2030. The previously proposed methodology only included the reductions due to the cap factor. SMUD contends that this double reduction proposal has two main defects. First, it again penalizes EDUs for making the required investments in renewables, by reducing allocated allowances ***in addition to*** the cap reductions. Second, the increase in RPS requirements is, as ARB has recognized, to some extent divorced from the concept of "cost burden". The RPS allows up to 10% of the requirement in the post-2020 period to be met with unbundled RECs, which do not reduce an EDU's cost-burden under Cap and Trade. Another 15% of the RPS obligation can be met with firmed and shaped Product Content Category 2 (PCC2) generation, which may or may not reduce an EDU's cost-burden depending on the applicability of the RPS Adjustment. Finally, many EDU's have "grandfathered" firmed and shaped contracts which will also not reduce their compliance obligation depending on the applicability of the RPS Adjustment.

Again, this is a difference from the 2013-2020 allocation for EDUs. While this methodology did include the increase from 20% to 33% RPS, that component was only used to adjust allowances among EDUs in the methodology, not to reduce allocation to the electric sector as a whole. The overall electric sector allocation was determined solely based on an initial starting point and a cap-factor decline, and this amount was then dispersed to EDUs based on differential renewable investments over time and other cost-burden factors.

Industrial Allowance Allocation Related to On-Site Electricity Use: SMUD continues to oppose the proposal to reduce EDU allocations in relation to the amount of

electricity supplied to industrial covered entities being served by each EDU. The intent of providing administrative allowances to EDUs was for ratepayer protection, to cover the obligations the EDUs pass on to their customers (in addition to the costs of complementary programs). EDU ratepayers include industrial covered entities, which deserve the same ratepayer protection as other customers. There is no reason to shift the allowances for this purpose from the EDUs to their industrial customers.

With regard to IOUs, the process at the CPUC for determining how to return allowance revenue to industrial customers has been complicated to develop. However, that work has now been completed and industrial covered entities will now receive bill credits or rebates from allowance sales, just like residential customers. Accordingly, there is no need to develop a new way to compensate these customers through a dramatic shift to an entirely new structure for treatment of EDU and industrial sector allocations. Such a change is not necessary or prudent. It could cause delays in getting compliance costs related to electricity prices returned to covered industrial entities, particularly for industrial covered entities in POU service areas.

POUs already return compliance costs to these industrial customers through lower electricity rates, and changing policy now would require POUs to change rates for industrial covered customers. Thus, implementing a new structure for POUs (and IOUs) as proposed will lead to new processes and could cause market uncertainty among industrial entities about how their costs may be "covered" or reflected going forward.

The staff proposal does not provide industrial customers with the same protection from Cap-and-Trade costs because a direct award of allowances won't necessarily cover all of their costs, due to differences in how ARB allocates allowances to industrial entities and EDUs. Thus, the goal of keeping these businesses in California may not be met by this regulatory change. Consequently, the current design should be maintained for the following reasons:

- Fairness and simplicity. All industrial customers have costs covered with the same structure, as opposed to one structure for covered entities and another for non-covered entities;
- The staff proposal would not cover actual carbon costs imbedded in electricity rates and returned to all customers (for POUs) as changes in the electricity mix change those costs over time.
- The current system reflects the cost differences between service areas in the state, the staff proposal does not – hence, the staff proposal may lead to unintended movement of industrial customers among utilities with no benefit to the atmosphere.
- Under the proposed rule, industrial customers have no obligation to use those surplus revenues for AB 32 purposes, thus depriving the State of an important source of funding for carbon reduction.

In summary, SMUD opposes removing allowances from the EDUs and providing a related amount of allowances to covered industrial entities. The proposal is complicated and unnecessary.

D. Continuing The RPS Adjustment

SMUD appreciates ARB staff indicating in the October 21st workshop that they intend to continue the RPS Adjustment post-2020. The RPS Adjustment allows the Cap-and-Trade structure to recognize the zero-emission nature of the renewable procurement when it occurs in an uncapped jurisdiction. SMUD looks forward to working with ARB staff to better understand and refine the operation of, verification of, and guidance about the RPS Adjustment on an ongoing basis.

/s/

WILLIAM W. WESTERFIELD, III
Senior Attorney
Sacramento Municipal Utility District
P.O. Box 15830, MS A311
Sacramento, CA 95852-0830

/s/

TIMOTHY TUTT
Government Affairs Representative
Sacramento Municipal Utility District
P.O. Box 15830, MS A313
Sacramento, CA 95852-0830

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