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SMUD Comments On Post-2020 Cap-Setting and Allocation

Thank you for the opportunity to submit comments about setting the overall cap and addressing the allocation of allowances beyond 2020. 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. Setting the Post-2020 Annual Caps

SMUD generally supports "Option 2" presented by ARB Staff at the March 29th workshop, constituting a linear declining annual cap starting from estimated 2020 emissions and ending with the expected 2030 capped level (2030 cap consistent with 40% below 1990 levels of GHG emissions). SMUD sees the end of the current Cap and Trade structure post-2020 policy as an opportunity for ARB to "restart" the program in 2021 based as much as possible on actual emissions at the end of the decade. Climate Change is driven by cumulative GHG emissions over time, and Option 2 will mean lower cumulative GHG emissions in the 2020-2030 period, preserving California's leadership.

However, ARB should realize that estimated 2020 emissions are just that – an estimate. Many factors can affect the emissions path in the State over the next four years, so that actual 2020 emissions will be different than an estimate made during this rulemaking, particularly in the electric sector. Higher or lower economic growth than expected, different resource choices or developments than expected, an explosive growth in a new electrical end-use such as electric transportation or a dramatic uptake of some energy efficiency policy, an unforeseen failure of a large resource or load – all of these will to one degree or another change the actual 2020 emission signature from the expected. For these reasons, SMUD suggests that any option that begins with estimated 2020 emissions should be conservative. For example, for the electric sector, ARB could use a CEC IEPR forecast that reflects high growth, high electrification, and low efficiency as the basis for any 2020 estimate of emissions.

SMUD also supports placing the difference in allowances between Option 1 (which declines in a straight line between the current 2020 cap and the expected 2030 cap) and Option 2 into the APCR. Again, Option 2 involves starting with an estimate, and implies a ‘tighter’ allowance supply over the period. If emissions prove higher than expected and allowance prices increase significantly, it will be important to have a robust APCR to help constrain those price increases. Essentially, SMUD sees this component of the construct as moving back to Option 1 if Option 2 proves to provide too few allowances for demand.

B. Basic Allocation For the Electric Sector

SMUD generally supports the basic allocation structure presented by ARB staff for the electric sector and electric distribution utilities within the sector. SMUD also supports providing allowances to EDUs to cover the increased emissions from electrification. SMUD does not support removing allowances from the allocation to EDUs and providing commensurate allowances to the industrial sector to cover the carbon costs included in on-site electricity use.

The proposed basic allowance structure where each EDU would be provided allowances based on the 2020 EDU proportionate allocation, but declining over time by multiplication by the post-2020 cap factor has the advantage of being simple and direct, while generally supporting the need for compliance instruments of all the EDUs in the State on behalf of their ratepayers. Providing allowances commensurate to compliance need is reinforced by the proposed adjustments for known major changes in that need, such as the scheduled expiration of a coal contract or a scheduled change in procurement from a large zero-emission resource such as a nuclear facility. Basing provision of allowances roughly on covering expected ratepayer compliance costs is very similar to the current allocation rationale – providing allowances to each EDU, for ratepayer protection, to generally cover their expected need through 2020.

However, because the proposed structure is not based on detailed forecasts of such need, as the previous allocation structure for EDUs was, it is likely to result in greater diversion from compliance need over time than has existed in the current allocations. EDUs in California have significantly different growth potential and rates, and hence an allocation that meets need in 2020 may be well short in 2030. In addition, the renewable options available under the RPS include a variety of options that do not provide the procuring entity a carbon benefit under the Cap and Trade structure, in contrast to the current methodology that identified “need” through 2020. This means that the 2020 starting point may not be as representative of 2020 “need” than may have been expected when the allocation structure was developed, and this discrepancy would be perpetuated with the proposed structure.

Nevertheless, SMUD sees the proposed basic structure as a viable platform on which to build a final allocation structure with minimal disagreement among the EDUs. SMUD suggests that the final structure could include a one-time “updating” of the 2020 proportionate allocations to reflect the difference between the current allocation in 2020

and a more up to date estimate of compliance need that reflects the treatment of renewables in the Cap and Trade structure and specific historic major adjustments that were not reflected in the original provision of allowances through 2020 (such as the retirement of San Onofre). Of course, care must be taken in such “updating” to address the potential for individual EDUs to project a compliance need higher than what may be truly expected, in order to get additional allowances. SMUD has previously commented that the current allowance allocation structure for EDUs would be difficult to replicate due to the potential for the inflation of compliance need.

Alternatively, SMUD supports a “sales-based” allocation structure for EDUs similar to the benchmarking structure used for other industrial covered entities or the transition by 2030 of such a structure. SMUD supported such a structure during the initial development of the Cap and Trade program and still believes the structure has distinct advantages. In this structure, EDUs would receive allowances based on their proportionate share of statewide electricity retail load in the previous year, based on a “benchmark” amount of GHG per MWh of sales. This structure would have the advantage of providing a continuing reward and hence incentive to those EDUs that produce electricity from a lower-emitting resource mix. It also has the advantage of automatically providing allowances to support electrification of the transportation sector and other sectors, rather than requiring an additional “demonstration” of allowance need to cover emissions that result from that electrification.

ARB could also begin with the basic proposed structure from the workshop, with potential adjustments, and then transition by 2030 to a simple sales-based allocation. Such a transition may be less controversial than starting in 2021 with a sales-based structure, as by 2030 there will be substantially less variation in the amount of GHG per MWh in California’s EDUs. This transition structure could still avoid much of the complexity of demonstrating allowance need from electrification, as the most significant needs for this purpose are likely to be later in the next decade (and beyond) rather than earlier. A sales-based allocation, or transitioning to that by 2030, makes eventually moving beyond 2030 simpler and easier to put in place.

C. Industrial Allowance Allocation Related To On-Site Electricity

SMUD opposes 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, who 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.

While the process at the CPUC for determining how the revenue from allowance sales is returned to customers, particularly for industrial customers, has been complicated to develop, SMUD’s sense is that the work has mostly been done and final implementation is close. That effort is in effect “sunk costs,” and, going forward, the path should be

easier. Making the dramatic shift now regarding EDU and industrial allowance allocation implies starting over with a new structure, which will take time and be complicated.

It is also not a problem that POUs follow different processes regarding allowance use and allowance revenue than do the IOUs under CPUC oversight. There are many differences among the many POUs in California and between POUs and the IOUs with regard to rate structures and costs, service protocols, etc. that are longstanding and simply just part of the structure of the electric sector. Any differential treatment of carbon allowance costs and allowance revenue among this diverse group of EDUs is not likely to be apparent as a significant cost or pricing factor to the industrial sector overall.

In addition, unlike natural gas or other process fuels used by industry, all of which have a similar on-site GHG-emission profile, there is a very diverse mix of resources supplying electricity among the EDUs in the State, and these different portfolios result in GHG intensities for industrial electricity supplied ranging from zero to 1,500 pounds of GHG per MWh. To properly include coverage of embedded GHG from on-site electricity use, ARB would have to develop and apply EDU-specific GHG factors for electricity, and these factors would have to change every year depending upon hydro conditions and changes over time in utility resources.

On the other hand, a simple use of the default emission factor for electric generation would end up over-allocating allowances to industries relative to the statewide average GHG emission rate for electric utilities, while providing a windfall to industrial covered entities served by low intensity utilities and shorting industries covered by high intensity industries. Just using the statewide average GHG emission factor for the electric industry would avoid over-allocation in general, but would still end up unfairly providing some in the industrial sector a windfall while shorting others.

These differences also make it difficult to justify providing allowances to industrial customers for their on-site electricity use. The amount of carbon in each industrial covered entities electricity use will vary significantly, and the embedded costs of whatever carbon is included in that electricity will also vary based on the differential rate structures among EDUs. This EDU-specific information will not necessarily be known by industrial customers, requiring some other source of this information – likely the EDU -- to provide the information annually, complicating verification of industrial source emissions. The proposal sounds much more complex than the current structure, whereby the administrative allowances are provided to EDUs.

SMUD also is concerned that the allowances proposed to be taken from the EDU sector will be based on projections of load rather than equivalent to the allowances that will be provided annually based on actual electricity use by each covered industrial customer. This raises the possibility of a growing gap between the allowances removed from the EDU sector and the allowances provided to our industrial customers.

D. Additional Allowances for Electrification

SMUD appreciates the explicit inclusion of adding allowances to EDU allocations to cover additional load and emissions from electrification. Electrification is an important measure for achievement of Governor Brown's goal of a 50% reduction in petroleum use in vehicles by 2030. It is well established that, while electrification will generally result in increased GHG emissions from the electric sector, there will be significantly decreased emissions in the sectors or end-uses being electrified, so overall electrification produces significant total GHG reductions. The increases in the electric sector, however, would act as a barrier to electrification if not covered by allowance in the Cap and Trade program. ARB staff proposes that these added allowances be provided based on evidence of electrification, and requests comments on how to quantify and verify the increased load due to electrification.

SMUD expects that the greatest amount of additional load will come from the electrification of the transportation sector. There has been a dramatic growth in electric vehicles deployed in the State in the last few years, and State targets and expectations imply that this growth will continue to 2030 and beyond. Here, ARB should rely on the demonstration and verification of increased electric load that is used to provide Low Carbon Fuel Standard (LCFS) credits to opt-in EDUs in that program. The LCFS program should yield accurate figures for load serving electric vehicles because the integrity of that complementary program depends upon it. It would be efficient for the Cap and Trade program to take advantage of the data from this complementary program, which would also avoid potential confusion from two different sets of data on vehicle load.

Electrification of other end-uses, such as water heating, space heating, etc. will likely be relatively small in comparison to transportation electrification. In this sector, EDUs could provide demonstration of the penetration of electric technologies for each end use, and the standard end use intensities (EUI) that are used in forecasting models and energy efficiency programs for various technologies (such as a heat-pump water heater that has a specific rated efficiency). While individual installations can use different amount of electricity depending on consumer behavior, etc., these standard values are sufficient to provide good estimates of the electricity load involved. Verification would then simply be verification of installation or penetration of the technologies – how many were installed – rather than a complicated statistical analysis of before and after electricity use.

In both cases, for transportation and for other end-use electrification, SMUD again suggests that an alternative is to use a basic sales-based allocation overall for the electric sector, or a transition to such an allocation structure by 2030. This allocation structure automatically includes the increased load due to electrification, so relieves the EDUs and ARB from coming up with a method of demonstrating and verifying the electrification load.

E. Allowance Value Clarification

With respect to the proposed additional clarification of disallowed use of allowance value, SMUD supports including the prohibition of the use of allowance value to cover basic program costs (MRR, COI fees, etc.), in addition to the current prohibition of use to cover obligations from sales into the CAISO. SMUD does not believe that there should be an explicit prohibition from using allowance value to provide a volumetric return of value to ratepayers. ARB staff stated at the workshop that they do not intend to monitor or regulate POU rate structures or proceedings, nor do they intend to direct the CPUC's ratemaking authority on this issue. SMUD suggests that ARB should not establish an explicit prohibition that it does not have the authority to enforce, as that will likely just elicit market confusion.

F. Eligibility For Allocation

At the March 29th workshop, ARB staff described the current methodology for direct allocation to the electric, natural gas, and industrial sectors. A common part of direct allocation in all three sectors is the requirement that in order to be eligible to receive the allowances calculated for each sector (and entity), an entity must: 1) comply fully with the mandatory reporting regulations (MRR) by reporting emissions and other data as required; 2) receive a positive or qualified positive verification statement pursuant to those MRR regulations; 3) fulfill all requirements for information submission necessary to receive direct allowances by the specified deadlines in the Cap and Trade Regulation; and 4) have an active CITSS account.

SMUD has two concerns. First, SMUD is concerned that small discrepancies in an entity's performance in MRR compliance or verification results may subject an entity to complete loss of direct allowances allocated. An entity clearly must have a CITSS account to receive allowances, but that can be set up relatively simply and quickly. The MRR requirements are voluminous and the Cap and Trade regulations are complicated. Entities should not lose the direct allowances they are entitled to under the methodologies for each sector due to minor discrepancies in meeting every requirement of these regulatory structures. The ARB should clarify that if the eligibility conditions are not met in a particular instance, the ARB will consider whether direct allocations are affected, either partially or wholly, based on the nature of the "violation".

SMUD's second concern is the description that condition 3 above – fulfillment of all requirements for information submission necessary to receive direct allowances by the specified deadlines – appears to be an 'added' eligibility condition that is not in Section 85980 of the Cap and Trade regulations. While this may be something similar to needing a CITSS account in some cases (if you do not provide the necessary information, how can CARB provide allowances), in other cases it may be again that a slight discrepancy in information provided or by when that information was provided implies no real impediment to the eventual calculation of and provision of direct

allowances. Similar to the first concern, SMUD believes that ARB should be flexible in the interpretation of these questions.

G. Continuation of The Voluntary Renewable Electricity Program

At the March 29th workshop, ARB staff suggested that since less than 15% of the Voluntary Renewable Electricity (VRE) allowances available were retired in the first compliance period that no further VRE allowances will be set aside in the post-2020 compliance period. SMUD believes that ARB is acting prematurely on this issue, and supports a continued VRE set aside allocation post-2020.

SMUD relies on the VRE program to ensure promised carbon reductions to our leading Greenergy voluntary renewable program. SMUD suggested in one of the preliminary workshops last fall that ARB should be prepared to expand and extend the VRE program given the potential for new voluntary green pricing participation pursuant to SB 43 and more recently SB 350. It was just in January of this year that PG&E, SCE, and SDG&E received permission from the CPUC to establish their voluntary green pricing programs pursuant to SB 43. Depending on the uptake of voluntary solar procurement under this new program (and potential similar programs at SCE and SDG&E), the VRE allocation as it stands could be fully used by 2020. SMUD's Greenergy program is also undergoing a period of rapid expansion, with participation increasing by more than 50% in the last year or so.

ARB's contention that the VRE program is undersubscribed is based on only two years of program operation that occurred before the new programs and recent growth. ARB should await more information about how this expected growth impacts VRE program participation before determining that no further set aside is required. Otherwise, ARB runs the risk of stopping the growth of, and even causing declines in, these clean energy options as consumers realize their voluntary efforts are not providing GHG reductions as expected.

ARB staff also suggested that they are considering changes to allow VRE eligibility for projects that meet Solar Electric Incentive Program Guidelines, or the State's varied SB 1 programs. This proposal has three problems.

First, while the SB 1 program has been wildly successful in increasing the growth of distributed generation in the State, it is now entering a stage where incentive budgets are ending as required by the law, so much of the action specifically taken under the program to install systems has already occurred. Adding eligibility for VRE is not necessary for already installed systems, and going forward, it is not clear how or whether additional systems will participate in any similar program.

Second, adding SB 1 systems to the VRE program is a significant expansion, and may then use up the budgeted allowances leaving voluntary green pricing programs – the initial purpose of the VRE – high and dry in terms of continued assurance that GHG

reductions are continuing for green pricing participants. Again, it is premature to make such dramatic changes to the VRE.

Third, it is unclear administratively how the tens of thousands of individual participants in the SB1 program could be easily included in the VRE program. With voluntary green pricing programs, it is the EDU that is participating in the VRE program on behalf of the participants signed up for the program. With the SB 1 systems, EDUs do not necessarily have the same representational relationship that can ease the administrative burden of VRE participation.

Respectfully submitted,

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cc: Corporate Files