April 22, 2016

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

Re: SMUD Comments Pursuant to April 5th Workshop

Thank you for the opportunity to submit comments pursuant to the April 5th workshop, covering cost-containment in the morning and additional discussion of the inclusion of international sector-based offsets – primarily offsets in the "Reduce Emissions from Deforestation and forest Degradation", or REDD category – in the afternoon.

A. Cost-Containment In the Post-2020 Cap and Trade Program

Keeping Cap and Trade costs reasonable is extremely important for the long-term viability of the program. Experience with the Cap and Trade program so far has been compliance instrument prices near the reserve price or "price floor" established in the program. The primary cost-containment measure in the current structure, the Allowance Price Containment Reserve (APCR), has not been accessed to date, but still remains as source of compliance instrument supply that would be injected into the market if prices increased rapidly for some reason. The APCR will only be activated when market prices for compliance instruments approximately quadruple, or the market expects this level to soon be reached.

The function of the APCR can be described then as a "lagging" cost-containment structure, only activated after market prices reach levels that may be unsustainable in the long-run. SMUD supports continuation of the APCR, with changes as described below, as well as other "leading" cost-containment mechanisms in the Cap and Trade structure that act to increase market supply and decrease market demand for compliance instruments before market prices have increased rapidly, such as the inclusion of offsets in the program up to the 8% offset limit to increase available supply and inclusion of complementary measures like the RPS to reduce demand.

While the initial years of compliance experience in the Cap and Trade program have seen reasonable compliance instrument prices, SMUD does not believe that this experience should lead to complacency about prices in future years. Market projections have indicated a potential tightening of demand/supply conditions prior to 2020. After 2020, the proposed increased decline in the cap year to year has the potential to lead to increased upward price pressure. To prepare for this eventuality, SMUD has some specific cost-containment recommendations below.

1. **Modifications to the APCR structure after 2020**. SMUD supports the proposals described in the April 5th workshop to: a) remove (or reduce) the 5% escalation factor in the annual APCR prices, reducing over time the range of difference between the APCR prices and the reserve price floor; and b) consolidating the price tiers in the APCR. SMUD agrees with the Emission Market Advisory Committee (EMAC) that reducing the difference between the reserve price and the APCR prices will reduce rewards for any exercise of Market Power near the end of a compliance period. SMUD also notes that the added 5% escalation factor, when extended past 2020, would lead to APCR prices in the range of $120-150 per allowance; -- a price level that implies the program is unsustainable. Consolidating the price tiers removes an unneeded complexity from the APCR structure. If the APCR is ever accessed, injecting all of the allowances into the market at one price is likely to have a stronger stabilization effect than having three separate price tier "injections" (as the APCR is currently structured).

   SMUD also supports: a) leaving any unused allowances in the current APCR in place after 2020; 2) adding to the post-2020 APCR with the difference in allowances that would result from a cap adjustment in 2021, should ARB choose to include a cap adjustment; and 3) adding any allowances that remain unsold for long periods of time to the APCR. In all of these instances, there is basically a 'bank' of allowances from the years leading up to 2020 – representing emissions that are below the current cap – and that bank should be maintained to protect against unsustainable price increases that may accompany the sharper emission reductions expected in the next decade. A maintained or larger APCR is consistent with the EMAC recommendation to accompany reduced APCR prices with a larger APCR.

2. **Using Future Vintages For Compliance At A Premium**: SMUD also supports including the ability for covered entities to use a limited amount of future vintage allowances for compliance in the current compliance period. Multi-year compliance periods provide compliance flexibility, but the end of a compliance period still represents a source of instability in the Cap and Trade structure. Currently, entities are limited to using only current vintage and past vintage compliance instruments for any compliance event. For the 30% annual surrenders in the early years of compliance periods, this is not a significant market constraint. However, in the final year of a three-year compliance period, the entire period must be made whole with these vintages of compliance instruments, and if

demand here stretches supply, prices will inevitably reflect the market tightness. When the limited future-year allowances out in the market are not allowed to be used, they will likely be valued at substantially lower prices in the near-term, reflecting the looser market conditions that will occur at the beginning of the next compliance period. There is a set of market conditions that may result in a three-year sine-wave in market prices, rather than a stable or a stably increasing long-term price trend. Such a pattern almost certainly will negatively affect investment decisions in emission reducing practices, exacerbating the tight market conditions over time.

SMUD supports the proposal of allowing the current future vintage allowance instruments already in the market (those sold by the state in the quarterly auctions) to be used for current period compliance at a premium – so that more than one future vintage compliance instrument is necessary to satisfy a compliance obligation for the current period. In the first half or so of 2018, for example, as the tallying for the 2015-2017 compliance period occurs, there will have been some vintage 2018 compliance instruments sold in 2015, vintage 2019 allowances sold in 2016, and vintage 2020 allowances sold in 2017. ARB could allow entities to use these different vintage allowances at a single premium such as the 25% premium used as an example at the workshop, or establish differing premiums for each vintage to reflect the difference between the vintage of the instrument and the year it is being used.

SMUD would also support a broader concept of "overlapping" compliance periods, where the vintage 2018 allowances that have been allocated prior to the early November compliance period surrender "event" could be available for compliance, again at a premium. Note that not all of the 2018 vintage allowances would be available, as some are auctioned off in the fourth quarter auction every year, too late for the surrender event. The ARB can alter the Cap and Trade regulations to increase the allowances held for the final auction if desired. SMUD sees this overlapping concept as providing a market price smoothing effect between compliance periods, without really borrowing from future periods, since the allowances have been allocated or sold in the market prior to the surrender event.

3. **Additional Offset-related Cost Containment**: SMUD suggests ARB should also consider additional cost-containment mechanisms in the current Cap and Trade rulemaking, such as increasing the supply of offsets and enhancing the ability to use offsets up to the 8% limit. Increased supply of offsets can be accomplished by expeditiously approving additional protocols, such as the proposed sector-based offset protocols. Increasing supply is made more effective if the ARB also enhances the ability of the Cap and Trade marketplace to use offsets for

compliance up to the 8% limit. The full amount of offsets available may not have been necessary in the first compliance period, since only half the available offset limit was used, but if prices rise dramatically, the additional supply that comes from being able to fully use the 8% offset limit will be very important.

SMUD has previously suggested, along with other parties, that the ARB either allow compliance entities to “bank” their offset limit across compliance periods, increasing the chances that each obligated entity would be able to use offsets up their limit over time, or explicitly “reallocate” any unused offset limit in a compliance period over all compliance entities, ensuring that the market in general will have a better chance of utilizing offsets up to the limit. SMUD would still support either of these actions, but suggests a third alternative – ARB could track any unused offset limit in previous compliance periods in an offset “limit bank”, and release that extra room under the limit to the market only if prices rise to the point that a minimum percentage of compliance instruments are sold from the APCR (a minimum percentage may be necessary to prevent gaming of this provision). This is not changing the 8% limit itself, or increasing supply beyond that already potentially available in the Cap and Trade structure, it is simply finding a way to access that already available supply at a time when it is sorely needed. It is a way of increasing the amount of instruments that are “released” when the APCR is accessed without explicitly taking additional instruments from the market to fund an increased APCR. In effect, the market had already “donated” that supply, and ARB can include a modification to the regulations to ensure that the donated supply is fully accessible to the market.

SMUD has also previously suggested that offsets that provide certain benefits within California could be exempted from the offset limit, given that the emission reductions implied by the offsets are occurring within the state, so that in effect the overall AB 32 limit is being observed. This concept could be adopted in combination with ta minimum percentage of he APCR being accessed as well, so that the relatively small amount of supply opened up by the action would only occur once prices had risen to a point that a boost in supply is needed to keep the program sustainable. The offsets that would be exempted from the 8% limit in this concept could include those that are associated with:

- a direct reduction or avoidance of any criteria air pollutant emissions in California;

- a direct reduction or avoidance of any impacts on water quality in California;
- a direct alleviation of a local nuisance within California associated with the emission of odors;
- a direct environmental improvement to land uses and practices in California's agricultural sector;
- a direct environmental improvement to California's natural forest resources and other natural resources;
- a direct reduction of the need for mitigation of the impacts within California of rising global greenhouse gas emissions.

Finally, SMUD also supports any streamlining of offset policy while maintaining offset integrity that allows compliance entities (particularly smaller entities) to access offsets up to their current limit. For example, the buyer liability aspect of most offsets imposes a market risk that prevents many from considering the offset alternative, even with market-insured "golden" offsets. SMUD encourages ARB once again to move away from buyer liability in current and future offset protocols.

4. **Enhancing Impacts Of Complementary Measures**: SMUD believes that the complementary measures established as companion GHG reduction measures for the Cap and Trade generally act to reduce demand for compliance instruments. These measures hence act as a kind of "leading" cost-containment measure, lowering demand prior to market prices rising to APCR levels. One of the largest of these complementary measures is California's Renewable Portfolio Standard (RPS) program, which acts to reduce emissions and hence need for compliance instruments in the electric sector.

   Historically, there has not been a perfect collaboration between the RPS and Cap and Trade, so that some renewable procurement allowed under the RPS does not result in a lowered carbon obligation, which reduces the cost-containment impact of the program. The RPS procurement that has no carbon benefit under the Cap and Trade rules is the procurement of unbundled RECs, or Portfolio Content Category 3 (PCC3) resources. Historically, however, all other types of RPS procurement will result in some kind of reduced demand for compliance instruments.

   One way that the ARB has reflected the complementary RPS in the Cap and Trade regulations is with the RPS adjustment. Under this part of the regulations a compliance entity may reduce its compliance obligation to reflect the procurement of renewables without ensuring delivery of that power to California, if an equivalent amount of substitute fossil energy is delivered to California. This provision allows this kind of RPS procurement to have the cost-containment impact of a demand-reducing complementary measure, as intended.

However, ARB staff has indicated that the RPS Adjustment may be difficult to continue in the future, given perceived problems with how it is currently implemented and the difficulty of resolving those perceived problems. SMUD has previously commented, and reiterates here, that ARB should find a way to preserve the RPS Adjustment going forward. The general principle is to make sure that complementary measures are implemented to maximize their intended cost-containment impact if it is at all feasible to do so.

B. Including Sector-Based Offsets

SMUD has consistently supported the inclusion of sector-based offsets in the Cap and Trade program. SMUD submitted arguments to this point on the 2013 Scoping Plan, the 2013 Cap and Trade regulation amendments, and pursuant to the October 28, 2015 workshop on sector-based offsets inclusion. SMUD has also verbally supported inclusion of sector-based offsets at many ARB workshops and board meetings, most recently at the March 22nd workshop. SMUD has commented in favor of including REDD sector-based offsets for two primary reasons: 1) enhancing California's leadership on addressing Climate Change around the world; and 2) cost-containment within the Cap and Trade structure in California.

SMUD believes that it would be an important facet of California's leadership and outreach to engage other jurisdictions around the world in reducing greenhouse gas (GHG) emissions, rather than focusing solely on California's responsibility to reduce those emissions. California can provide leadership on the question of providing investment funds for important REDD GHG reducing projects in partner jurisdictions issue by opening the Cap and Trade program to sector-based offsets. This action spreads attention to the problem of global climate change beyond the relatively narrow confines of California, broadening ARB's leading efforts to address this major world problem.

SMUD also believes that adding REDD offsets to the offset supply available to California, while preserving environmental integrity by ensuring those offsets are extremely well vetted, again acts as a "leading", rather than "lagging" tactic to contain Cap and Trade costs in California. Reducing the expected shortfall in offset supply in the second and third compliance periods by including additional types of offsets, such as the REDD sector-based offsets under consideration, would help to ensure that Cap and Trade compliance instrument prices remain reasonable to

Californian's in all locations and all income levels. SMUD continues to support an adoption schedule that allows inclusion of sector-based offsets in the Cap and Trade market late in the second compliance period, as well as in the third compliance period and in post-2020 compliance periods, to encourage rapid development of positive programs such as REDD offsets.

The use of offsets in the Cap and Trade program is also restricted by the buyer liability structure that applies to most compliance offset protocols. Even with the market providing insured "Golden" offsets, there remains some risk that prevents potential buyers from fully entering the offset market, particularly for a smaller covered facility or company, which is one reason that offset demand in the market has been well below the 8% limit. For REDD offsets, this buyer liability risk may be perceived as even more pronounced given the question of dealing with different, far away, countries and a relatively unknown regulatory structure. Certainly this risk could inhibit the success of the contemplated inclusion of REDD offsets.

With respect to the details of including sector-based offsets covered in the April 4 workshop, SMUD supports:

- Establishing a buffer pool to manage the risk of reversals, similar to that used for the US Forests Compliance offset protocol. This is not exclusive of other efforts to handle reversal risk, including actions by the source jurisdictions to ensure the robustness of sector-based offsets in those locations or third-party market insurance structure. As mentioned above, SMUD does not support an expansion of buyer-liability for sector-based (or any other) offset protocol.

- Including some additional mild discounting to manage the risk of leakage. There is already some conservatism built into the proposed offset structure with a crediting baseline below the historic practice level, and a small additional discount on crediting should be sufficient to address leakage as defined here.

- A jurisdictional tracking system that satisfies minimum standards established in the sector-based protocol. The minimum standards proposed in the staff presentation seem reasonable.

- A robust measurement, reporting and verification process; meeting quality standards established in the sector-based offsets protocol; that ensures transparent information available about the offsets generated. The standards proposed in the staff presentation seem reasonable.

Thanks again for the opportunity to comment.

Respectfully submitted,

/s/_______________________

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cc: Corporate Files (LEG 2016-0311)