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LEG 2016-1038

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## Sacramento Municipal Utility District's Comments Re: The Discussion Draft 2030 Target Scoping Plan Update

SMUD appreciates the opportunity to comment on the Discussion Draft 2030 Target Scoping Plan Update (Discussion Draft). SMUD has long supported ARB's efforts to address Climate Change by reducing GHG emissions in California, and has provided comments on the initial Scoping Plan and the First Scoping Plan Update released and adopted in 2013-2014.

SMUD supports the Draft Scoping Plan Scenario included in the Discussion Draft for the principal reason that it employs a familiar market-based program – Cap-and-Trade – to foster the most cost effective and technologically feasible reductions to meet the new GHG emission limit, set by Governor Brown in Executive Order B-30-2015, and codified in law by SB 32. At the same time, the Scenario includes significant complementary measures, or "known commitments", that will result in direct emission reductions at covered sources along with those that arise from Cap-and-Trade itself. SMUD believes that other complementary measures could be included in the Scenario to reduce emissions by increasing electrification of various end-uses.

SMUD has the following specific comments on the Discussion Draft.

**Integrated Resource Planning**: Under the heading "Electricity Goals" on page 39 of the Discussion Draft, bullet one reads:

 Achieve sector-wide and load-serving entity specific GHG reduction planning targets set by the State through Integrated Resource Planning.

SMUD understands that Senate Bill 350 requires larger load-serving entities (LSE) to follow an Integrated Resource Planning process, developed by the California Public Utilities Commission, the California Energy Commission, and Publicly Owned Utility Governing Boards, that identifies a path toward meeting sector and LSE-specific GHG targets. However, these targets are planning targets, providing general direction for resource planning over time and subject to revision in

subsequent IRP processes as procurement circumstances change and lessons are learned. These targets cannot be "achieved" in the same way that the 40% statewide GHG reduction level must be achieved. SMUD recommends the bullet be reworded as follows:

• Establish the Integrated Resource Planning process necessary to develop and monitor progress towards sector-wide and LSE-specific GHG-reduction planning targets.

Ratepayer Protection: On page 45, the Discussion Draft mentions rationale for administrative allocation of allowances issued by ARB, including for reasons of potential trade exposure and resulting emissions leakage. ARB should add a sentence or phrase explicitly recognizing the rationale for providing administrative allocation to electric distribution utilities (EDUs) on behalf of ratepayers – for ratepayer protection against high compliance costs on top of the cost burden already established with complementary measures such as the renewable portfolio standard and energy efficiency measures.

**Electrification**: Page 46 of the Discussion Draft contains a paragraph (the first full paragraph on the page) that discusses how greenhouse gas emissions, criteria pollutants, and toxic air contaminant trends are not always correlated. After the sentence starting "In some cases...", an additional three sentences should be added reading as follows:

However, there is a substantial decrease in overall greenhouse gases, criteria pollutants and toxic air contaminants from electrification even as the additional electricity implied may result in increased GHG emissions in the power sector. Power plants have stringent criteria emission controls in comparison to other large sources – leading to minimal associated increases in criteria pollutants and toxic air contaminants from power plants in comparison to sector GHG emission increases. Decreases in criteria pollutants in the electrified sectors will significantly outweigh potential increases from power plants – an effect not achieved by any other measures.

**Power Plant Inclusion in Industrial Sector**: Page 47 of the Discussion Draft contains a bullet under "Sector Measures" that reads:

• Evaluate and implement prescriptive regulations to reduce GHG, criteria, and toxic air contaminant emissions in a cost-effective manner, focusing on the largest GHG emission sources, including power plants.

SMUD notes that the sector being discussed here is the industrial sector, not the energy sector. The last three words in this bullet should be removed, as the bullet is

not applicable to California's power plants. In addition, the electric sector already has several significant regulations aimed at reducing GHG, criteria, and toxic emissions in the sector, including the RPS and doubling of energy efficiency measures. The physics of the electric grid guarantee that these measures will lead to direct emission reductions at power plants.

**Known Commitments Going Forward**: Page 82 of the Discussion Draft describes some "known commitments" under the general section heading "The Strategy to 2030". SMUD suggests that the first sentence under the subsection "A. Known Commitments" be rewritten. The sentence currently reads:

With the passage of Senate Bill 350 (SB 350, De Leon, Chapter 547, Statutes of 2015), California put itself on a path to decarbonize the electricity sector through Integrated Resource Planning (IRP), an increased RPS, and a goal to double energy efficiency in electricity and natural gas end uses.

SMUD agrees that SB 350 is a key driver of emission reductions in the energy sector. Unlike the increased RPS and increased energy efficiency, however, the IRP provisions in SB 350 do not directly act to reduce GHG emissions – these are planning documents and processes, not active GHG-reducing measures. And, SB 350 addresses the entire energy sector, including transportation and natural gas, not just the electricity sector. SMUD suggests that the sentence be modified as follows:

With the passage of Senate Bill 350 (SB 350, De Leon, Chapter 547, Statutes of 2015), California continued put itself on a path to decarbonize the energy electricity sector through Integrated Resource Planning (IRP), an increased extended and expanded RPS, and a goal to double energy efficiency in electricity and natural gas end uses, and an increased focus on transportation electrification and Integrated Resource Planning (IRP).

The first bullets on page 83 should be slightly altered to emphasize the specific, active parts of SB 350 aimed at reducing GHG emissions, and properly describe the IRP planning targets envisioned by SB 350. SMUD suggests that these bullets read as follows:

- SB 350 by 2030
  - Primary Goals: Reduce GHG emissions in the energy sector through
     GHG emission reduction planning targets and IRPs
    - Load Serving entities have the flexibility to meet GHG emission reduction planning targets through a combination of measures as described in IRPs.
    - Moving to a 50 percent RPS by 2030
    - Doubling of energy efficiency savings in natural gas and electricity end uses statewide.

- Increased attention to advancing transportation electrification
- Load Serving entities have the flexibility to define and progress towards GHG emission reduction planning targets through a combination of measures as described in IRPs

**Draft 2030 Target Scoping Plan Scenario**: Pages 87-91 of the Discussion Draft describe the Draft 2030 Target Scoping Plan Scenario, which meets the 2030 target with a variety of known commitments and additional prescriptive measures, backed up by an extended Cap-and-Trade program through 2030. SMUD supports the Draft 2030 Target Scoping Plan Scenario with a robust and well-designed Cap-and-Trade structure, because that scenario is best suited to provide a smooth transition from 2020 to the 2030 carbon reduction goals. Under current Cap-and-Trade regulations, SMUD's experience has been positive due to the fair and reasonable structure of the market, resulting in stable allowance prices, consumer protection, and the desired carbon reductions.

The Cap-and-Trade structure has been a successful adjunct to complementary policies like the Renewables Portfolio Standard, the Low Carbon Fuel Standard and energy efficiency programs. The advantage of the Cap-and-Trade alternative is the economic efficiency resulting from giving covered entities flexibility to select least-cost solutions, rather than be prescribed regulatory actions. At the same time, most of the emission reductions expected to meet the 2030 target come from the complementary measures or "known commitments". These measures, such as the 50% RPS, doubling of energy efficiency targets, and extended and enhanced Low Carbon Fuel Standard will result in significant emission reductions at covered sources in California, as will the Cap-and-Trade program itself. As SMUD commented in more detail with respect to the November 7, 2016 workshop describing scenario modeling in the Scoping Plan process, the scenario including the extended Cap-and-Trade program has the advantages of:

- Establishing a market price for emission reduction actions, fostering investments, and affecting power plant dispatch decisions;
- Providing certainty reaching the required target and the cost to get there (through the floor price and cost-containment measures). A path without Cap-and-Trade would almost certainly mean higher overall costs to consumers:
- Continuation of the existing backstop structure, avoiding the disruption of switching to another basic strategy after 2030;
- Continuing to allow for ratepayer protection and protection against leakage of emissions outside of California through provision of allowances to EDUs and industrial entities;
- Continuation of the ability to link with other jurisdictions to coordinate the global effort to reduce GHG emissions; and

 Continuing to provide investment funds for GHG reduction programs, focusing on disadvantaged communities.

The one possible disadvantage that the Cap-and-Trade inclusion brings as the State moves toward the aggressive 2030 target comes from the fact that the Cap-and-Trade market has inelastic supply – defined by the allowances provided and offsets allowed – and relatively inelastic demand – investments to reduce emissions and hence demand for compliance instruments generally take time to be procured and developed. This structure raises the risk of reaching a point where demand hits and exceeds supply for some time, causing compliance instrument prices to increase sharply, even above the Allowance Price Containment Reserve (APCR) price levels, challenging consumer costs and the political viability of the program. SMUD, along with other utilities, has repeatedly encouraged significant attention to and inclusion of various cost-containment strategies above and beyond the current APCR program and the limited amount of offsets allowed. SMUD will continue to address this issue as the post-2020 Cap-and-Trade program is developed.

A transition to a post-2020 Cap-and-Trade program that would significantly restrict administrative provision of allowances, act to increase market volatility, or lead to significantly higher allowance prices, would negatively affect the value of the Cap-and-Trade market for all market participants. SMUD has been participating in the development of the post-2020 Cap-and-Trade regulations and supports a smooth transition from current regulations that align with and support the State's 2030 carbon reduction goals and continues to keep Cap-and-Trade costs reasonable. In this light, allowance allocations to the electric sector must be sufficient to avoid high ratepayer impacts, which would reduce incentives for electrification. Allocations should reflect reasonable emission reductions from the electric sector consistent with the overall reductions in emissions established in SB 32 and reflected in SB 350, with due consideration of the cross-sector shift of emissions that comes with electrification and of unforeseeable changes in circumstances that may increase emissions beyond the level expected in uncertain long-term forecasts.

SMUD also reiterates that ARB should consider potential additional complementary measures under the Draft Scoping Plan Scenario such as mechanisms addressing natural gas use in buildings. SMUD notes few policies exist that address this significant carbon source, and suggests that policies that foster building electrification, such as those included in Alternative 1, should also be included in the Draft 2030 Target Scoping Plan Scenario.

The Draft 2030 Target Scoping Plan Scenario should also reflect additional attention, if feasible, towards those GHG sources that are projected to grow rather than decline through 2030, such as high-GWP gases.

Alternative 2, which includes a carbon tax in place of the Cap-and-Trade program, provides only the first and perhaps the last of these advantages. Alternative 2 also

shares a risk disadvantage, since the tax level to be certain of achieving the 2030 Target is not clear, and it would be politically infeasible to periodically adjust the tax to exactly achieve the needed reductions and no more than necessary. Alternative 1, which includes neither a Cap-and-Trade nor a carbon tax, provides none of the above advantages, and has the significant disadvantage of higher overall costs of compliance, leading to political infeasibility for continuation of the program.

Accounting for Assembly Bill 197: Page 91 of the Discussion Draft discusses three measures under possible consideration to further the "prioritization" for direct emission reductions that Assembly Bill 197 requires ARB to consider. SMUD believes that the Draft 2030 Target Scoping Plan Scenario including an extended Cap-and-Trade structure will provide direct emission reductions at levels that meet the required "prioritization", particularly if additional measures as suggested above are included.

SMUD believes that, given the prioritization already included above, these measures are unnecessary, and could be counterproductive. These measures have several problems.

The first potential measure is to evaluate limiting offsets more than in the current structure for a post-2020 Cap-and-Trade program. This suggestion will just increase costs. Offsets are an important cost containment mechanism that should remain in full force in the program, and they are very well monitored by ARB to ensure that actual emission reductions occur where the offset projects are located (some of which provide co-benefits within California). The post-2020 Cap-and-Trade program comes with much steeper reductions under the new targets, which makes flexibility mechanisms like offsets that much more critical to ensuring stable, politically acceptable prices while maintaining a steady carbon reduction trajectory.

SMUD believes that the current 8% offset limit should be maintained. As the known commitments are implemented and the cap decreases, forcing direct emission reductions at covered sources, including transportation sources, the quantitative use of offsets compared to direct emission reductions will be sharply decreased. Even with an offset limit retained at 8% of compliance, a 40% reduction in GHG emissions from 2020 to 2030 as required by SB 32 implies that, even if used up to the limit, offsets will represent a significantly less important contribution to compliance than in the current program. Staying the course on the 8% offset limit means that a significantly greater contribution to meeting the 2030 target will come from direct emission reductions, not offsets.

The second potential measure is to redesign the post-2020 allocation strategy to reduce the allocation of free allowances, hoping thereby to support increased technology and energy investment at covered sources. SMUD contends that allocating fewer allowances to covered sources in favor of increased auction amounts does not lead to a clear reduction of emissions at covered sources.

Differences in allowance allocations do not change the basic question as to whether it is less expensive to reduce emissions and hence not use (and potentially sell) the allowance, or to use the allowance to cover actual emissions for compliance. Auctioning greater amounts of allowances has other implications, but does not materially alter the amount of direct emission reductions at covered sources.

The third potential measure -- decreasing a covered facility's GHG allowance allocation if the covered facility reports an increase in onsite criteria and toxic emissions -- also has problems, particularly for sources in the electric sector. Due to the significant fluctuations in hydroelectric generation in the state and the fact that each covered power plant is part of the interconnected electric grid, increases in generation and hence emissions from any one source are likely to occur in some years. This is an inherent aspect of an interconnected electric grid, and does not imply any lack of commitment to long-term reductions in emissions for the sector. Power plants should not be penalized in allocation for operating to maintain the reliability of the grid during a drought or an unforeseen outage elsewhere on the grid.

Thank you for the opportunity to comment.

/s/

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cc: Corporate Files