

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE
STATE OF CALIFORNIA**

Order Instituting Rulemaking to Implement the)
Commission's Procurement Incentive Framework)
and to Examine the Integration of Greenhouse)
Gas Emission Standards into Procurement)
Policies.)
_____)

Rulemaking 06-04-009
(Filed April 13, 2006)

BEFORE THE CALIFORNIA ENERGY COMMISSION

In The Matter Of,)
)
AB 32 Implementation – Greenhouse Gas)
Emissions.)
_____)

Docket 07-OIIP-01

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**COMMENTS OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) ON
PROPOSED FINAL OPINION ON GREENHOUSE GAS REGULATORY STRATEGIES**

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Pursuant to Rule 14.3 of the California Public Utilities Commission’s (“CPUC”) Rules of Practice and Procedure, Southern California Edison Company (“SCE”) respectfully submits these comments on the Proposed Final Opinion on Greenhouse Gas Regulatory Strategies (“PD”). SCE is concurrently filing these comments with the California Energy Commission (“CEC”).

I.

INTRODUCTION

SCE appreciates the considerable work done by the CPUC and CEC on developing recommendations to the California Air Resources Board (“ARB”) for greenhouse gas (“GHG”) regulatory strategies for the electricity and natural gas sectors. With the exceptions discussed below, SCE supports the PD.

In particular, SCE agrees with the PD's conclusion that equal renewables and energy efficiency goals are needed for *all* retail providers of electricity in California, including investor-owned utilities ("IOUs"), publicly-owned utilities ("POUs"), electric service providers ("ESPs"), and community choice aggregators ("CCAs"). If the GHG reduction goals of Assembly Bill ("AB") 32 are to be met, *all* retail providers must contribute their share of emission reductions.

Although SCE supports equal renewables targets for all California retail providers, the PD does not provide a credible analytic basis for its recommendation of a 33% renewables goal. The PD does not address why it recommends a 33% target over some other renewables goal. Moreover, the PD glosses over the significant barriers to increasing renewables that create a substantial risk of not achieving a 33% renewables level, especially given the difficulties already encountered in attempting a 20% renewables level. The PD also does not assess the impact of its renewables recommendation on grid reliability and grid integration, or the added procurement costs associated with creating a seller's market where buyers are potentially penalized for not achieving the goals. These issues should be fully addressed and carefully considered before – not after – the CPUC and CEC make a recommendation to substantially increase current renewables goals.

SCE largely supports the PD's recommendations regarding energy efficiency. Specifically, SCE agrees with the PD that the GHG reductions from energy efficiency needed to reach AB 32's goals cannot be accomplished solely through utility programs or without equivalent contributions from both IOUs and POUs. However, as explained below, the PD should be revised to correctly reflect the energy efficiency goals previously established by the CPUC.

Furthermore, the CPUC and CEC should expressly state that minimum efficiency, design, and performance standards for combined heat and power ("CHP") systems are required if the State is to achieve forecasted GHG emission reductions from additional CHP. California will not achieve GHG reductions from CHP systems that are not properly designed and sized to optimally serve the facility's thermal and electrical loads. CHP systems should be subject to

monitoring to ensure they meet the performance standards that were used by the ARB, CPUC, and CEC in calculating the assumed emission reductions from additional CHP.

While SCE believes that the PD's allowance allocation recommendations strike an appropriate balance among competing concerns and effectively address the issue of economic harm, the PD should be revised to allow a more gradual transition to 100% auctioning of allowances. Five years is not sufficient time for entities to transition to low emitting resources. Moreover, the trajectory of the multi-sector cap should begin with moderate emission reductions in the first compliance period with greater reductions in subsequent compliance periods. This transition period will allow obligated entities and consumers to transition to the higher costs of a carbon-constrained world.

Finally, SCE appreciates the PD's recognition of the importance of flexible compliance options such as multi-year compliance periods, banking, and offsets without geographic restrictions. Given the likelihood that the costs of AB 32 regulation may be significantly higher than expected, however, the CPUC and CEC should recommend that the ARB also permit obligated entities to use other flexible compliance options such as borrowing, price triggers, and safety valves.

II.

THE PD APPROPRIATELY RECOGNIZES THE NEED FOR EQUITABLE GHG REGULATION WITHIN THE ELECTRICITY SECTOR

AB 32 directs the ARB to design GHG reduction regulations “in a manner that is equitable.”¹ In the electricity sector, the burden of GHG regulation must be distributed equitably across all retail providers that deliver electricity to California consumers, including IOUs, POUs, ESPs, CCAs, and irrigation districts.

Historically, IOUs have been subject to stricter renewables and energy efficiency rules than POUs. IOUs have established goals to increase the share of renewables in their electricity

¹ AB 32, Cal. Health & Safety Code § 38562(b)(1).

portfolios to 20%, while POUs are encouraged but not required to meet the same goal. IOUs have also been required to meet CPUC performance standards in connection with energy efficiency, and have aggressively pursued energy efficiency over the last two decades. In contrast, according to the ARB Scoping Plan, POUs account for 25% of the electricity provided in California, but only 5% of the utility energy efficiency savings.²

SCE strongly supports the PD's recommendations of equal renewables rules for all retail providers and equivalent levels of energy efficiency investment from both IOUs and POUs.³ As SCE noted in its comments on the CPUC's energy efficiency goals proposed decision⁴ and the ARB Draft Scoping Plan,⁵ the IOUs are responsible for more than 80% of the Draft Scoping Plan's targeted energy efficiency savings, while only serving 72% of the State's electric load. This inequity reflects the IOUs' strong commitment to energy efficiency over the last two decades, but also highlights the fact that many of the highly cost-effective energy efficiency measures have already been implemented by the IOUs.

All California retail providers must be subject to the same performance standards and rules with respect to renewables, energy efficiency, and other regulatory requirements on the electricity sector that will be used to reduce GHG emissions. Each retail provider has to do its fair share of GHG reductions to help assure that the State's emission reduction goals are met. Additionally, in applying the equity principle in the electricity sector, energy efficiency savings targets should be comparable among IOUs and POUs, and should appropriately reflect the aggressive energy efficiency programs already implemented by the IOUs.

The PD properly recognizes the need for equal renewables and energy efficiency goals for all LSEs within the electricity sector. The CPUC and CEC should recommend to the ARB

² ARB Draft Scoping Plan Appendices at C-63.

³ PD at 10, 82.

⁴ Southern California Edison Company's (U 338-E) Comments on the Proposed Decision Adopting Interim Energy Efficiency Savings Goals for 2012 through 2020, and Defining Energy Efficiency Savings Goals for 2009 through 2011 at 6-7 (July 21, 2008).

⁵ Comments of Southern California Edison Company on the California Air Resources Board's Climate Change Draft Scoping Plan at 23 (August 1, 2008).

that all measures used to reduce GHG emissions in the electricity sector be equally applied to all California retail providers.

III.

EMISSION REDUCTION MEASURES AND OVERALL CONTRIBUTIONS OF ELECTRICITY AND NATURAL GAS SECTORS TO AB 32 GOAL

A. The PD Does Not Provide a Credible Basis for its 33% Renewables

Recommendation

The PD supports a 33% renewables target to help achieve the State's GHG reduction goals.⁶ While the PD acknowledges that action must be taken to alleviate barriers to achieving a 33% goal,⁷ the PD does not: (1) provide an analytical basis for recommending a 33% renewables target over some other renewables level; (2) sufficiently identify the other market and regulatory changes needed to support 33% renewables; (3) address the impact of this 33% renewables goal on overall grid reliability; or (4) demonstrate that pursuing a 33% goal is cost-effective compared to other emission reduction alternatives. Because the CPUC's and CEC's joint recommendation will inform the ARB's ultimate Scoping Plan decision, the time for making recommendations and urging caution on such issues is now. As discussed below, the CPUC and CEC should fully consider and address these issues before recommending an increased renewables goal to the ARB.

First, the PD fails to address why it identifies 33% as the correct renewables level for achieving desired GHG reductions in California. The PD cites to various policy statements identifying a 33% goal as a policy preference.⁸ However, the PD does not analyze why this percentage, and not some other, lower renewables level, is the optimal level for achieving cost-effective GHG reductions from renewable resources. Indeed, the PD itself appears to recognize the difficulty of the analysis when it notes that "there continues to be a great deal of uncertainty

⁶ PD at 6.

⁷ *Id.*

⁸ *See id.* at 89-90.

regarding the assumptions underlying a 33% renewable mandate.”⁹ But the PD gives short shrift to such uncertainty and instead finds reasonable E3’s analysis concluding that the average incremental cost for new renewables projects under a 33% recommendation would reach \$133 per ton of GHG emissions abated.¹⁰ This cost, the PD concedes, means that carbon reductions from an increased renewables target may be accomplished at costs that are “significantly higher than the price for carbon in any market currently operating . . . and would represent a significant cost to California’s ratepayers.”¹¹ The PD does not justify why California’s customers should be subjected to the cost of such an increased renewables goal without an understanding of whether a lower renewables level or different emissions reduction measures are warranted.

The PD appears to take the approach of justifying a 33% renewables target as part of a *portfolio* of abatement options. However, an *average portfolio cost* approach is absolutely inconsistent with cost minimization. Only by implementing programs that minimize the marginal cost of abatement will the State achieve the abatement goals embodied in AB 32 at the lowest possible cost. An average cost approach allows high cost abatement proposals to essentially be hidden among a slate of programs. If the State chooses to continue to follow a program selection process based on an average portfolio cost approach, Californians will spend far more than needed to achieve the emissions goals established by AB 32.

Second, in addition to ignoring the impact to customers of a 33% renewables recommendation, the PD also does not include necessary changes to markets and regulation necessary to achieve this goal. While SCE appreciates the CPUC’s and CEC’s intention to help address risks to renewable resource development, the PD does not sufficiently address the fundamental barriers to current renewables development such as federal tax credits, transmission constraints, an increasingly congested interconnection queue, permitting limitations, and developer performance. These barriers have all been identified in the CPUC’s report to the

⁹ *Id.* at 91-92.

¹⁰ *Id.* at 86, 92.

¹¹ *Id.* at 92.

legislature,¹² but the PD does not sufficiently address how they will be overcome. Expanding delivery requirements, authorizing Renewable Energy Credits, assuring equality among retailer providers and customer cost limits through Alternative Compliance Payments are all necessary changes that are not discussed in the PD. In light of the difficulties currently surrounding the achievement of the 20% goal by the end of the decade and the high cost of a 33% goal as a GHG reduction measure, the CPUC and CEC should revise the PD to specifically acknowledge the risk that a 33% renewables target may not be achieved and assess the likelihood that existing barriers to meeting renewables goals will be removed.

Perhaps most importantly, the PD suffers from the same deficiency found in the ARB's Draft Scoping Plan because it fails to fully assess the impact on grid reliability and grid integration of its renewables recommendation. The PD does not include an independent assessment of such impact. Rather than attempting to provide such information, the PD looks to future proceedings as the place to sort out such issues. The CPUC's and CEC's recommendations to the ARB should be used now to influence the direction the ARB sets for the State. Identification of the various issues to be faced by an electrical system that will have increased levels of intermittent resources would, at a minimum, help sound a cautionary alarm about the perils of a 33% renewable goal. Impacts on grid reliability and grid integration should be considered before – not after – a renewables target is determined.

B. SCE Supports the PD's Energy Efficiency Recommendations With the Correction Discussed Below

1. The PD Appropriately Acknowledges that Utility and Non-Utility Programs Will be Necessary to Achieve Targeted Levels of Energy Efficiency Savings

The PD supports a goal of achieving all cost-effective energy efficiency in the State through a combination of utility and non-utility actions and initiatives.¹³ SCE supports this recommendation because the aggressive energy efficiency levels needed to achieve AB 32

¹² CPUC, Renewables Portfolio Standard Quarterly Report (July 2008).

¹³ PD at 79-80.

targets cannot be accomplished solely through utility energy efficiency programs. The PD's recommended combination approach, which includes utility programs, building and appliance standards, and other actions, is essential to meeting the State's AB 32 GHG reduction goals.

SCE also supports the PD's recommendation to investigate market-based approaches to achieve additional energy efficiency such as white certificates or white tags.¹⁴ The scope of this investigation should include verification that these market-based approaches are compatible with modifications to the energy efficiency risk/reward incentive mechanism ("RRIM") being considered in R.06-04-010.¹⁵

Furthermore, as explained above, SCE strongly supports the PD's recommendation that the State require an equivalent level of energy efficiency investment from both IOUs and POUs.¹⁶

2. The PD Should be Revised to Correctly Reflect the Energy Efficiency Goals Adopted in D.08-07-047

The PD states that the ARB should use the energy efficiency goals adopted in D.08-07-047 as the basis for setting targets in its Scoping Plan for IOU energy efficiency programs.¹⁷ According to the PD, "[t]he goals include total energy savings from new investor-owned utility programs of over 16,000 GWh and 620 million therms between 2012 and 2020. Including expected savings from current programs between 2008 and 2012, total electricity savings would exceed 28,000 GWh."¹⁸

However, this 28,000 GWh value used in the PD for 2008 to 2020 energy efficiency savings is incorrect and is not the value adopted in D.08-07-047. The correct value adopted in D.08-07-047 is 26,000 GWh, as reflected in the language of the decision.¹⁹ The 28,000 GWh

¹⁴ *Id.* at 84.

¹⁵ D.08-07-047 at 31-32, 39 (Ordering Paragraph 6).

¹⁶ PD at 82.

¹⁷ *Id.* at 80.

¹⁸ *Id.*

¹⁹ D.08-07-047 at 23-24 ("Our adopted goals for 2012 through 2020 will bring about 16,000 gigawatt hours of energy savings over that period. When energy savings from 2008 through 2011 (from Figure 1) are included, total energy savings add up to approximately 26,000 gigawatt hours from 2008 through 2020. This savings will

Continued on the next page

value shown in the PD reflects the incorrect value that was contained in the July 1, 2008 proposed decision regarding energy efficiency goals.²⁰ This error was subsequently corrected in D.08-07-047.²¹ The final decision in this rulemaking should be revised to reflect the corrected value of 26,000 GWh that was adopted by the CPUC in D.08-07-047.

3. Analysis is Needed to Quantify the Costs of Achieving All Cost-Effective Energy Efficiency

The PD reaffirms the CPUC's and CEC's commitment to achieving all cost-effective energy efficiency in California.²² But the PD acknowledges that little empirical evidence exists to verify cost or delivery mechanisms associated with achieving extremely high levels of energy efficiency.²³ As the nation's leader in energy efficiency, SCE supports the goal of achieving all cost-effective energy efficiency. SCE recommends, however, that the CPUC and CEC undertake a rigorous analysis of the costs and feasibility of achieving all cost-effective energy efficiency early in the AB 32 compliance process. This analysis is critical so that the CPUC and CEC may consider other alternatives if these measures do not prove to be feasible or cost-effective.

It is particularly important to quantify customer costs (i.e., private, non-utility costs) associated with achieving all cost-effective energy efficiency. As the PD recognizes, building and appliance standards will be key elements in achieving this goal.²⁴ The costs of complying with these standards will be borne directly by customers, not by the utilities. Consequently, it is critical that these costs and their distributional impacts be well understood as the State attempts to achieve all cost-effective energy efficiency.

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serve as a foundational contribution to CARB's overall goal (which includes energy savings from municipal utilities) for statewide energy savings (leading to emissions reductions) for approximately the same timeframe.").

²⁰ Proposed Decision of ALJ Gamson, Decision Adopting Interim Energy Efficiency Savings Goals For 2012 Through 2020, and Defining Energy Efficiency Savings Goals For 2009 Through 2011 (July 1, 2008).

²¹ See D.08-07-047 at 24 n.24.

²² PD at 81.

²³ *Id.* at 82.

²⁴ *Id.* at 82-83.

C. Minimum Efficiency, Design, and Performance Standards for CHP are Needed if the State is to Achieve Projected GHG Reductions

The PD aptly recognizes that CHP must be efficient and appropriately sized to optimally serve on-site thermal loads in order to reduce emissions.²⁵ As the PD notes, “[p]roperly designed and sited CHP systems *can* provide efficient co-generation of electricity and thermal heat.”²⁶ SCE agrees with the CPUC’s and CEC’s “[g]oal to encourage cost-effective, fuel-efficient, and location-beneficial CHP.”²⁷ However, while the PD appears to recognize that CHP must be efficient if it is to lead to GHG reductions, the PD nonetheless fails to recommend any method to track efficiency or ensure that the proposed emission and fuel reductions from CHP assumed in the ARB’s Draft Scoping Plan are achieved. California will not achieve the anticipated emission reductions from CHP with CHP systems that waste fuel and are not maintained or optimized to meet the facility’s thermal and electrical loads.

The need for an efficiency standard is of paramount concern given SCE’s more than 20 years of experience with many CHP generators that offer little or no environmental benefits or reduced fuel use. Only about 5% of SCE’s CHP fleet operates at efficiencies high enough to actually reduce GHG emissions compared to the use of today’s efficient combined cycle gas turbine (“CCGT”) and industrial boiler systems. It is imperative that a process is put in place to establish standards to ensure that only the most beneficial CHP systems will be installed. The PD should be revised to require such a process.

²⁵ SCE appreciates the PD’s clarification that “energy efficiency typically refers to demand-side strategies to save energy; CHP is inherently a supply-side fuel-efficiency measure.” *Id.* at 98 n.30. SCE recommends that CHP not be labeled as an energy efficiency measure by the CPUC or CEC or in the ARB Scoping Plan to avoid confusion.

²⁶ *Id.* at 99 (emphasis added).

²⁷ *Id.* at 101.

As noted in SCE’s prior comments,²⁸ SCE recommends a “displacement” double benchmark method that compares CHP to the separate generation of electricity and heat. For heat, the benchmark should be a high efficiency natural gas-fired boiler. For electric energy, the benchmark could be a state-of-the-art CCGT. As a generation technology neutral choice, SCE recommends that the benchmark heat rate to which CHP is compared could be established by using a market-based heat rate.²⁹ One option for calculating this market-based heat rate would be to use the weighted average annual statewide price of electricity divided by the weighted average annual statewide price of natural gas. While the exact details can be established in an open and transparent proceeding, the double benchmarks should represent new modern gas and electric technologies so that any efficiency gains are real when considered from local, statewide, and even global perspectives.

Furthermore, the proposed emission reductions from CHP assumed by the CPUC and CEC and the ARB appear to account for important operational characteristics necessary for efficient and cost-effective operation of CHP – appropriate sizing and design, available thermal need, and ability to operate consistently. Annual monitoring should be required to ensure these expected performance standards are continually being met. Such monitoring is needed if the State is actually going to achieve the forecasted GHG reductions from CHP.

Finally, SCE cautions against a specific CHP “target” amount that could spur unnecessary overbuilding of CHP. Rather, the focus should be on developing efficient CHP systems that reduce overall fuel use and emissions. CHP systems should not be installed if they are not needed for thermal heat output or would have adverse effects on electric system operations. As the PD states, the goal is “cost-effective, fuel-efficient, location-beneficial

²⁸ Comments of Southern California Edison Company (U 338-E) on Administrative Law Judges’ Ruling Updating Proceeding and Requesting Comments on Emission Allowance Policies and Other Issues at 30-31 (June 2, 2008). The double benchmark method was also presented in the Joint California Public Utilities Commission and California Energy Commission Staff Paper on GHG Regulation for Combined Heat and Power at 10 (May 1, 2008).

²⁹ A market-based heat rate best reflects the alternative resources available within California.

CHP.”³⁰ CHP that is built just to meet a “target” and not because its heat output is needed will not serve this goal. Moreover, adding unscheduled excess electricity to the electric system when it is not required can cause curtailment of GHG-free electricity such as nuclear and certain renewable energy sources. Therefore, the impact of additional CHP on system operations must be carefully considered when incorporating efficient and cost-effective CHP in the state’s emissions reduction program.

D. The State Should Look to a Market-Based Program for Additional Emission Reductions

The PD recommends a combination of additional programmatic measures and a regional multi-sector cap-and-trade approach to achieving the emission reduction goals established by AB 32.³¹ A well-designed market-based approach will achieve the needed emission reductions at the lowest cost. Although both the CPUC and CEC and the ARB have engaged in modeling efforts to forecast the quantity of GHG abatement California can expect to achieve under various direct regulations, there remains a very real possibility that programmatic measures could fall short of achieving the emission reductions anticipated by the modeling efforts. If any of the currently recommended programmatic measures do not yield the expected emission reductions, the CPUC and CEC should suggest that the ARB allow the remaining unmet emission reductions to be achieved under a regional or national multi-sector cap-and-trade program as the lowest cost mechanism for achieving such reductions.

In addition to being the lowest cost mechanism for achieving additional reductions in GHG, a broad-based cap-and-trade system will also allow California to reach its emission reduction targets equitably. Many of the additional programmatic measures outlined for the electricity sector will be enforced by different regulatory agencies, depending on whether the electricity retail provider is an IOU or a POU. The CPUC has regulatory authority over the IOUs, while POU regulatory actions are largely implemented by their local governing agencies.

³⁰ PD at 101.

³¹ *Id.* at 107-112.

This regulatory asymmetry presents a significant risk that the regulatory programs designed by the CPUC, CEC, and the ARB will not be equitably enforced within the electricity sector. However, a cap-and-trade program will equitably incent both IOUs and POUs to reduce emissions. Under such a program, IOUs and POUs would be required to retire emission allowances for each ton of CO₂e emitted, and there would be no risk that a programmatic regulation could be inequitably enforced.

E. The PD Should Recommend Allowance Allocation to the Electricity Sector to Address Electrification of Other Sectors

The PD does not make precise recommendations regarding the specific level of allowances that should be allocated to the electricity sector, although it does state that the allocation to the electricity sector should be generally comparable to the percentage of statewide historical emissions that were emitted by the electricity sector.³² Additionally, the PD recognizes that electrification of transportation may be one way to reduce California’s overall GHG emissions, and states that “[i]n order not to create a disincentive for the electrification of transportation, ARB may need to allocate extra allowances to the electricity sector to account for the increase in emissions expected as a result of these and other potential policies.”³³ The PD provides that the CPUC and CEC expect to work closely with the ARB on these issues.³⁴

SCE believes that electrification measures, including plug-in hybrid electric vehicles, truck stop electrification, electric transportation refrigeration units, electric forklifts, and electric railroads, among others, offer great potential for cost-effective GHG reductions. Both transportation-related GHG emissions and overall statewide emissions will decrease with electrification of the transportation sector. However, the electricity sector may need more generation resources and will likely generate more electricity to meet the increased demand, which will result in higher costs and possibly some increased emissions in the electric sector.

³² *Id.* at 125.

³³ *Id.* at 127.

³⁴ *Id.*

The ARB must develop rules which will recognize these consequences, take into consideration the potential emissions increase in the electricity sector that will result from the overall reduction in emissions from fuel switching, and develop a mechanism to make the electricity sector whole for this increased cost, at a minimum. The electric sector should also be compensated so it has an incentive to encourage and expand electrification and to ensure equitable distribution of the economic burden associated with fuel switching efforts. Allowance allocation is an efficient way to compensate the electricity sector.

SCE appreciates the PD's recognition of the electrification issue. SCE recommends that the PD be revised to explicitly recommend that the ARB use allowance allocation to address electrification of other sectors.

IV.

DISTRIBUTION OF GHG EMISSION ALLOWANCES IN A CAP-AND-TRADE PROGRAM

Overall, the PD strikes a reasonable balance between the disparate positions held by the parties on allowance allocation and effectively addresses the issue of economic harm.³⁵ However, SCE is concerned with the recommended rapid transition to 100% auction of allowances by 2016.³⁶ Given the long life of generating assets and the amount of time likely needed to develop and perfect low-emission generating technologies and emission removal systems, five years is not sufficient time for entities to transition to low-emission resources.

The electricity sector is a capital-intensive industry where the timeframe for investment decisions is evaluated in decades, not years. The average life of a fossil fuel generation plant exceeds 30 years. Long-term purchase power agreements are typically signed for intervals of

³⁵ While SCE does not oppose the allowance allocation proposal set forth in the PD, SCE agrees with the concern noted in the PD that sales-based allocations to retail providers may provide incentives to retail providers to increase sales rather than invest in energy efficiency or demand response. *Id.* at 169. SCE also disagrees with EPUC/CAC's concern that the California Independent System Operator's ("CAISO") Market Redesign and Technology Upgrade ("MRTU") will limit generators' ability to recover their GHG compliance costs. *Id.* at 176 n.41.

³⁶ *Id.* at 203.

between five and twenty years. It takes at least five years just to permit and plan new high-capacity transmission lines that can access new renewable resources. Thus, it is unreasonable to expect that entities will be able to make significant changes in their generation profiles within five years. Such a rapid transition to a 100% auction will cause undue economic harm to all California entities and consumers.

The PD justifies the quick transition by pointing to the need to create incentives to reduce emissions, stating: “The knowledge that 100% auctioning would begin in a few years would give deliverers a strong incentive to move quickly to complete their preparations in a timely way.”³⁷ The method of allowance allocation need not create incentives to reduce emissions. A well-designed cap-and-trade program will create the necessary incentives. As the number of allowances is reduced each year, all obligated entities will have the incentive to reduce emissions or be forced to purchase allowances.³⁸ As the supply of allowances decreases, allowance prices will rise. Eventually, purchasing allowances will likely be cost prohibitive and entities will be forced to reduce their GHG emissions or invest in low-emitting resources. SCE recommends that the PD be revised to include a more gradual transition to 100% auction.

V.

CAP-AND-TRADE MARKET DESIGN AND FLEXIBLE COMPLIANCE

A. SCE Generally Supports the PD’s Market Design Recommendations

As outlined in its prior comments, SCE supports many of the PD’s cap-and-trade market design recommendations such as the need for a broad-based, multi-sector market, three-year compliance periods, unlimited banking, and the need for offsets. SCE agrees with the PD that California should work with the Western Climate Initiative (“WCI”) to create a broad, liquid, multi-sector, regional cap-and-trade market that includes the electricity sector, transportation

³⁷ *Id.* at 204.

³⁸ If allowances are administratively allocated then the entity would forgo the opportunity cost of selling the allowance. In either case, the entity faces the same economic decision.

sector, and major industrial sources.³⁹ As the PD explains, “a broader program will provide greater market liquidity and price stability, as well as additional opportunities for low-cost GHG reductions.”⁴⁰

B. The Trajectory of the Multi-Sector Cap Should Allow for a Transition to the Cap-and-Trade Program

The PD recommends that the trajectory of the multi-sector cap and the required annual reductions be a straight-line reduction between 2012 and 2020 for all sectors including electricity.⁴¹ This recommendation is based on a perceived need for steady progress toward the 2020 goal.⁴² SCE agrees that any trajectory should have an end point that meets AB 32’s goal of 1990 emission levels by 2020. However, SCE recommends that the first compliance period be viewed as a transition period, with a reduced reduction trajectory in order to allow a period of adjustment and reduce the economic burden of emission reductions.

It is well known that prices will increase as a consequence of GHG reduction measures. To a certain extent, moderate price increases are not only inevitable but desired, since consistent and accurate price signals will help drive investment to low-emitting technologies and reward obligated entities and consumers for taking actions that reduce GHG emissions. However, even moderate price increases may cause a significant economic burden. It takes time to adjust to a carbon-constrained world that features higher energy prices. Individuals and businesses need time to adjust their behavior and make investments to reduce their energy and fuel use. Moreover, experiences such as the California electricity crisis of 2001 show that rapid increases in prices of critically-needed commodities result in regulatory exceptions that threaten the integrity of emissions reductions systems. During the California electricity crisis, the South Coast Air Quality Management District’s nitrogen oxide declining cap RECLAIM program was effectively temporarily abandoned to assure existing power plants could continue to operate.

³⁹ PD at 254.

⁴⁰ *Id.*

⁴¹ *Id.* at 125-126.

⁴² *Id.*

Consequently, the trajectory of the multi-sector cap should begin with moderate emission reductions in the first compliance period, and then “ramp up” with greater reductions in the second and third compliance periods. The cap trajectory should not be a straight line. Instead, the first period should have a relatively moderate slope, and the second and third periods a relatively steeper slope. This trajectory will allow time for adjustments to GHG pricing and reduce the economic burden of the new GHG reduction program, while still meeting the 2020 AB 32 goals.⁴³

C. The CPUC and CEC Should Recommend Broad Use of Flexible Compliance Options

SCE disagrees with the PD’s suggestion that a broad-based market may reduce the need for flexible compliance options relative to a program with narrower scope.⁴⁴ There is a great deal of uncertainty about the costs and emission reduction potential of the proposed GHG reduction measures. As such, flexible compliance tools are necessary to keep costs down in meeting AB 32 requirements no matter the size of the market.

SCE supports the PD’s recommendation of unlimited banking and generally support its view on offsets as discussed in more detail below. Given the very real possibility that the costs of the AB 32 GHG reduction program may be significantly higher than current estimates, however, the CPUC and CEC should reconsider the PD’s recommendations of no borrowing, price triggers, or safety valves. Limiting obligated entities’ flexible compliance options increases the potential risks and costs of implementing AB 32. Additional flexible compliance mechanisms such as borrowing, price triggers, and safety valves are necessary, especially in the early years of the program when the uncertainty and risks are likely to be higher until markets and market prices are well-established. Moreover, technologies often require several years to come on-line. The ability to borrow could help spur technological innovation while allowing

⁴³ In addition, contrary to the WCI recommendation that the transportation and natural gas sectors not be included in the cap-and-trade program until the second compliance period, the CPUC and CEC should recommend that all major emitting sectors be included in the cap-and-trade program from the outset.

⁴⁴ PD at 254.

long-term emission reduction goals to be achieved at a lower cost. A safety valve would also provide some price certainty in the marketplace and help to reduce the risk of rate shock to customers. The CPUC and CEC should recommend that the ARB retain the option of offering additional allowances at a predetermined price in the event that the cap-and-trade market demonstrates economically burdensome price swings.

Finally, SCE agrees with the PD that multi-year compliance periods will help provide compliance flexibility due to weather-driven variations and other factors.⁴⁵ The PD also recognizes that rolling or staggered compliance periods could reduce price volatility, and encourages the ARB to further evaluate rolling or staggered compliance periods.⁴⁶ A rolling compliance period, in which compliance end-dates are staggered, will mitigate the tendency for price spikes at the end of a compliance period. However, due to the regulated nature of the electricity industry, that sector's compliance obligation will be known by entities that may be able to manipulate the market for allowances. To prevent such negative consequences, the CPUC and CEC should make a recommendation to the ARB that is supportive of a flexible compliance period, in which individual obligated entities have the option of choosing to end their current compliance period early. Such action might mitigate the tendency for manipulation of emissions markets.

D. The PD Correctly Recognizes the Importance of Offsets Without Geographic Restrictions

SCE is encouraged by the PD's position on offsets. SCE strongly agrees with the PD that "geographic limits are not consistent with the underlying goals of the offset program to contain costs and encourage reductions beyond those that are covered by an emission cap."⁴⁷ SCE further supports the CPUC's and CEC's conclusions that offsets need to be high-quality and meet the requirements of AB 32.⁴⁸

⁴⁵ *Id.* at 263.

⁴⁶ *Id.* at 265.

⁴⁷ *Id.* at 271.

⁴⁸ *Id.* at 269-270.

SCE continues to believe that there should not be any initial quantitative limit on offsets. Additionally, offsets should be allowed to meet reduction obligations in the cap-and-trade program and as an alternative compliance mechanism with respect to specific reduction measures. As noted above, there is substantial uncertainty regarding the projected costs of the AB 32 GHG reduction program. Restricting the use of offsets would likely increase the costs to customers as well as lessen the program's capacity to mitigate the effects of worldwide climate change.

VI.

CONCLUSION

For the foregoing reasons, SCE respectfully requests that the CPUC and CEC adopt the PD with the modifications described above.

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CERTIFICATE OF SERVICE

I hereby certify that, pursuant to the Commission's Rules of Practice and Procedure, I have this day served a true copy of COMMENTS OF SOUTHERN CALIFORNIA EDISON COMPANY (U 338-E) ON PROPOSED FINAL OPINION ON GREENHOUSE GAS REGULATORY STRATEGIES on all parties identified on the attached service list(s). Service was effected by one or more means indicated below:

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Executed this **2nd day of October 2008**, at Rosemead, California.

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