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Clerk of the Board
California Air Resources Board
1001 I Street
PO Box 2815
Sacramento, CA 95812

Re: Pacific Gas and Electric Company's Comments on the Air Resources Board's July 25, 2011 Proposed Modifications to the AB 32 Cap-And-Trade Regulation

Clerk of the Board:

Pacific Gas and Electric Company ("PG&E") is pleased to submit these comments on the Air Resources Board's ("ARB") proposed modifications to the regulation entitled "California Cap on Greenhouse Gas Emissions and Market-Based Compliance Mechanisms" and accompanying materials, released July 25, 2011, under Assembly Bill 32 ("AB 32"). PG&E is submitting comments on the proposed modifications to the Mandatory Reporting Regulation ("MRR") under separate cover.

PG&E believes a well-designed, multi-sector cap-and-trade program – linked with emerging regional, national, and international programs – will allow California to meet its greenhouse gas ("GHG") emission reduction goals in a cost-effective manner as required by AB 32 (Cal. Health & Safety Code, § 38560). While ARB has made progress with the design of the cap-and-trade program, we believe that the program will benefit from additional review and modification based on the input of stakeholders and by engaging an independent market design expert to review the GHG market and its impacts upon energy markets to ensure both are able to function in concert with each other. In this regard, we welcome ARB's decision to defer the start of the cap-and-trade compliance obligation until 2013 to allow necessary testing of auction systems, design and protocols in the first half of 2012. It is critical to test the robustness of the auction systems, design, and protocols through market simulations in the first half of 2012. Equally important is to test the auction's potential vulnerability to manipulation through "table top" and other market simulation exercises, with oversight by market auction experts. Through such testing, ARB will be able to identify possible weaknesses in the design and undertake remedies prior to commercial and financial commitments being made in the first two auctions in 2012.

We offer the following comments and will work constructively with ARB and all concerned stakeholders to ensure sustained GHG emission reductions, manage costs for our customers and create a program that can serve as a model for others to follow.

I. INTRODUCTION.

PG&E's detailed comments on the proposed modifications to the regulation are set forth in Section II below. At the outset, however, the following summarizes issues which we believe are of critical importance to the successful implementation of AB 32's cap-and-trade program:

A. PG&E Recommends That ARB Establish A Contingency Plan In The Regulation To Address Potential Depletion Of The Allowance Price Containment Reserve ("APCR" or "Reserve"). (Section 95913)

- ARB should specify in the regulation a method to replenish the APCR in the event that the reserve is stressed. With language in the regulation identifying the triggering event and action ARB will take, the market will have assurance that a timely remedy will be in place. Thus, ARB should specify a method to replenish the APCR in the event that 1/3 of the reserve allowances are sold.

B. ARB Should Defer To The California Public Utilities Commission ("CPUC") To Determine The Manner In Which Consignment Auction Revenues Are Returned To Investor-Owned Utility Customers. (Section 95892)

- Under the California Constitution, the CPUC has been provided exclusive jurisdiction over the ratemaking for Investor-Owned Utility costs and revenues, and thus is solely responsible for determining how consignment auction proceeds are distributed by Investor-Owned Utilities to utility customers. Therefore, ARB would exceed its authority by issuing regulations that would require the utilities to return the auction proceeds they receive to ratepayers in a specific manner.

- Current electric rates and programs already send a strong conservation signal to households who consume in upper tiers. An additional carbon cap-and-trade price signal will unfairly penalize a subset of customers who already see incentives to use less energy.

C. Flexibility And Certainty In The Use Of Offsets Is Necessary To Ensure That The Goals Of AB 32 Are Achieved In A Cost-Effective Manner. (Sections 95854, 95855 And 95990)

- In the first compliance period, the supply of offsets is likely to be inadequate to cover 8% of emissions, as would be permitted under the proposed regulation. To address this situation, PG&E encourages expedited approvals of additional protocols and proposes a simple method to allow complying entities the flexibility to use offsets up to the 8% limit over the entire cap-and-trade program.

- The process for potential invalidation of offsets creates large, uninsurable risks for project developers. Only the largest developers will be able to develop projects, further restricting an already limited offset market. PG&E provides two suggestions to ensure the environmental integrity of offsets while encouraging the development of offset projects – a compliance buffer account and dual verifications.

- PG&E supports the modifications to the Early Action Offset section of the regulations. These modifications will encourage existing projects to transition to the ARB Compliance Protocols. These projects are critical to address the expected shortage of offset credits early in the program.

D. ARB Should Credit Resources Eligible Under The Renewable Portfolio Standard ("RPS") As Zero GHG To Ensure That The RPS, Cap-And-Trade, And Mandatory Reporting Regulations Are Consistent And Achieve GHG Reductions In The Most Cost-Effective Manner. (Section 95852(b))

- Although PG&E appreciates ARB's intent to address utility concerns regarding the treatment of renewable electricity, the new provisions, as currently drafted, would prevent PG&E from being able to count existing out-of-state RPS-eligible contracts as zero GHG and would limit our ability to count future out-of-state contracts which we are allowed to pursue under the existing 33% legislation as zero GHG.

- California utility customers should receive credit for the zero-GHG attributes purchased through renewable contracts and should not be required to pay twice for GHG reduction benefits.

E. ARB Should Provide Flexibility Within A Compliance Period On The Vintage Of Allowances Surrendered. (Section 95856)

- To maximize the flexibility associated with the three-year compliance period, ARB should allow complying entities to surrender allowances from any year within that compliance period.

F. A Market Monitor Is Critical To The Success Of Cap-And-Trade And Should Be Included In The Regulation.

- The regulation should specify the authority and responsibilities of a market monitor to include: auction certification, quarterly auction reporting and reports on overall market status.

II. DISCUSSION.

To assist Staff in its review of our comments, the following detailed discussion is set forth on a section-by-section basis. Where appropriate, we have also provided suggested revisions to regulatory language.

Section 95802. Definitions.

PG&E's comments propose changes affecting a number of the definitions set forth in Section 95802. With one exception, discussed immediately below, all changes affecting definitions are addressed later in our comments on the substantive sections of the regulation.

Section 95802 (84). ARB Should Work Closely With The California Independent System Operator ("CAISO") To Address Issues Associated With Regulation Of Imported Power.

During ARB's July 15, 2011 Workshop, stakeholders noted potential cap-and-trade implementation issues that might arise due to differences between the CAISO's geographical footprint -- which has delivery points that extend beyond the state's boundary -- and ARB's authority to impose compliance obligations. The regulation proposes to establish an obligation on the party that holds title to electricity as it is imported across the state boundary, and PG&E supports this concept. The regulation relies upon electricity "tags" to establish ownership or title.

As stakeholders at the Workshop noted, tags have historically served a different function than establishing ownership and also tags to some CAISO delivery points are still deliveries to points outside of CA. Due to these concerns, PG&E urges ARB and CAISO to review both the regulation and the CAISO's tariff to ensure that the proposed regulatory approach is accurate and could withstand potential legal challenges which would impede successful implementation of the program.

Section 95814. ARB Should Define "Temporary Possession" Clearly To Ensure That Derivatives Clearing Organizations Retain Allowances Only For The Time Needed To Provide Market Clearing Services.

Section 95814(a)(3) would add derivatives clearing organizations that take only temporary possession of compliance instruments to the definition of "voluntary associated entities." PG&E recommends that ARB define "temporary possession" as it is used in Section 95814(a)(3) so as to ensure that derivatives clearing organizations that are claiming to qualify as voluntary associated entities pursuant to Section 95814(a)(3) are in fact only taking temporary possession of allowances for the amount of time needed to provide the market clearing service and the transfer of compliance instruments. Otherwise, derivatives clearing organizations could use this section to exempt themselves from the registration information required of other entities by Section 95830(c)(1)(D). To improve clarity, PG&E recommends the following edits:

> 95814(a)(3) An entity providing clearing services, or clearing entity, in which it takes only temporary possession of compliance instruments for the purpose of clearing transactions between two entities registered with the Cap-and-Trade Program. Temporary possession shall only constitute the period of time required to facilitate clearing and the transfer of compliance instruments between parties. A clearing entity ~~must be~~ is a derivatives clearing organization as defined in the Commodities Exchange Act (7 U.S.C. § 1a(9)) that is registered with the U.S. Commodity Futures Trading Commission pursuant to the Commodities Exchange Act (7 U.S.C. § 7a-1(a)).

Section 95820. Serial Numbers On Compliance Instruments Should Provide Information That Will Support Efficient Program And Systems Implementation.

The regulation should add needed detail about the format and information contained in the serial numbers that will aid participants and the market as this program is implemented and as it evolves beyond California's borders. The serial number's format should identify Vintage Year, Compliance Instrument Type (Allowance or Offset Credit), Jurisdiction (California), and also identify project type for Offset Credits. PG&E requests that the regulation be revised to add:

> 95820(a)(2) The Executive Officer shall assign each California GHG allowance a unique serial number that indicates the annual allowance budget from which the allowance originates. The serial number's format shall identify Vintage Year, Compliance Instrument Type (Allowance or Offset Credit), Jurisdiction (California), and also identify project type for Offset Credits.

Section 95830. ARB Should Clarify The Manner In Which Registration Will Be Confirmed.

ARB should specify in Section 95830(e) how long after registering, an entity will be notified whether the Executive Officer has approved their registration and in what form the approval confirmation will be delivered.

Section 95831. ARB Should Define The Term "Clearing Entity".

In Section 95831(a)(5)(B), ARB uses the phrase "clearing entity". Consistent with our comments on Section 95814 above, PG&E requests that ARB make conforming changes to the definition of clearing entity in Section 95802 of the Regulation to avoid potential confusion due to the multiple connotations of the term in the commodity trading industry.

Section 95832. ARB Should Provide Sufficient Time To Change Account Representatives.

Section 95832(f)(4) allows only 1 day to submit a revision of "any change in the entities that own compliance instruments in the account". PG&E proposes that the time requirement be changed to a minimum of five business days. A small increase in the number of days will help alleviate the challenge of submitting a revision in the situation when "any change" is made on a Friday or a day prior to a California State Holiday, while still ensuring that entities provide the ARB with prompt notice of change.

Sections 95832, 95834, 95841.1, 95852, 95914, 95975, 95977.1, 95979, 95981, 95986, 95990. Attestation Should Be Provided In A Manner Consistent With Other Air Quality Regulations.

The proposed regulation would require that designated representatives and certain others attest to the accuracy of filings made with ARB "under penalty of perjury of the laws of the State of California." PG&E recommends that this language be modified to certify the accuracy of filings "under penalty of law." ARB has provided no justification for its proposed requirement other than the circular reasoning that "addition [of the perjury language] is necessary to ensure that all information submitted is true and complete under penalty of perjury," and has not provided any information to show that inaccurate submittals are being made in other programs. The requirement to sign under penalty of perjury is unnecessary in light of provisions in the Health and Safety Code and elsewhere in these regulations that penalize submission of inaccurate or incomplete information. See, e.g., Health and Safety Code § 42402.4; proposed regulations sections 95107 and 96014. Moreover, no stationary source air quality program PG&E is aware of, including the federal Clean Air Act Acid Rain program, Title V operating permit program, SCAQMD RECLAIM program, and numerous air district regulations, requires that submissions be made under penalty of perjury.

Section 95833. ARB Should Clarify That An Electrical Distribution Utility's Beneficial Holdings Relationship To Cover Emissions Resulting From An Electricity Contract Does Not Constitute An Ownership Interest.

Section 95833(a)(2) defines an entity as having a "direct corporate association" with another registered entity when it holds compliance instruments in its own holding account in which another entity has an ownership interest, but it is unclear what is meant by "ownership interest." It would appear that under this Section, an electrical distribution utility holding compliance instruments on behalf of another entity in a Beneficial Holding relationship would be considered to have a direct corporate association with the other entity. Section 95833(a)(3) defines "indirect corporate association," but again, it is unclear what is meant by "percentage ownership of the entity in the other entity."

PG&E is concerned that if its Beneficial Holding relationships as currently defined by Section 95834(a)(2) are considered to be direct corporate associations with ownership interests, it will have to disclose to each of its entities with whom it has such Beneficial Holding relationship the existence of its other Beneficial Holding relationships, in order for those entities to disclose indirect corporate associations in accordance with Section 95833(c). PG&E believes that its disclosure of such Beneficial Holding relationships to ARB should be confidential and the disclosure of the relationships should not be shared among the entities with which it has a Beneficial Holding relationship. Further, if such Beneficial Holding relationships are defined as direct corporate associations, PG&E and the entities with which it has Beneficial Holding relationships would be subject to a shared holding limit under Section 95920(f) and (g). ARB should resolve this issue by clarifying that an electrical distribution utility's Beneficial Holding relationship as defined in Section 95834(a)(2) does not constitute an "ownership interest" as that term is used in Section 95833(2)(a).

Section 95834. PG&E Recommends That ARB Allow Beneficial Holding Entities To Allocate A Portion Of Their Holding Limits To Electrical Distribution Utilities.

PG&E appreciates that ARB has recognized the need to allow electrical distribution utilities to claim a beneficial holding relationship under certain circumstances. However, PG&E is concerned that the new language specifies that a beneficial holding relationship for electrical distribution utilities requires the contract for electricity be "long-term." Electrical distribution utilities should be able to serve as the agent in a beneficial holding relationship for any contract for the delivery of electricity, regardless of length. Further, as the electrical distribution utility may be serving as the agent acquiring and holding compliance instruments for multiple second registered entities, it would be preferable to allow each second registered entity to allocate a portion of its holding limit to the electrical distribution utility, and to allow the electrical distribution utility to aggregate any such allocated holding limits. We offer the following revisions to address these issues:

Section 95834.

(a) A B~~b~~eneficial H~~h~~olding relationship exists when:
(1) An E~~e~~ntity holds C~~c~~ompliance I~~i~~nstruments in its H~~h~~olding A~~a~~ccount that are owned by a S~~s~~econd R~~r~~egistered E~~e~~ntity. The E~~e~~ntity acquires, holds, and ~~disposes of~~ transfers the C~~c~~ompliance I~~i~~nstruments based on instructions from or an agreement with the S~~s~~econd R~~r~~egistered E~~e~~ntity. There are two types of participants in a B~~b~~eneficial H~~h~~oldings relationship:
(A) The agent in the B~~b~~eneficial H~~h~~oldings relationship is the registered entity holding C~~c~~ompliance I~~i~~nstruments owned by another E~~e~~ntity or to be transferred to another E~~e~~ntity under an agreement disclosed to ARB.
(B) The principal in the B~~b~~eneficial H~~h~~oldings relationship is the registered entity that owns the C~~c~~ompliance I~~i~~nstruments held by an agent or to whom the C~~c~~ompliance I~~i~~nstruments will be transferred under an agreement disclosed to ARB.
(2) An E~~e~~lectrical D~~d~~istribution U~~u~~tility informs ARB that ~~it has established an agreement~~ its contract for delivery of electricity includes the option to serve as the agent in a B~~b~~eneficial H~~h~~olding relationship pursuant to section 95834(a)(1)(A) to purchase and hold A~~a~~llowances for the eventual transfer to a S~~s~~econd R~~r~~egistered E~~e~~ntity with whom it has ~~a long-term~~ the contract. ~~for the delivery of electricity for the sole purpose of supplying the second entity with compliance instruments to cover emissions resulting from satisfying the electricity contract.~~ These Allowances will be transferred to the Second Registered Entity's Compliance Account for the sole purpose of supplying the second entity with Compliance Instruments to cover emission obligations per the contract.
(A) This disclosure shall include the facility ID(s) associated with the contract and must be made to ARB prior to any such purchases~~, and must include the terms of the contract governing the eventual transfer~~. The disclosure shall also specify a percentage of the Second Registered Entity's Holding Limit as agreed upon by both parties that shall be allocated to the Electric Distribution Utility serving as the agent in the Beneficial Holdings relationship.
(B) An E~~e~~ntity serving as agent in this type of a B~~b~~eneficial H~~h~~olding relationship may not also serve as the agent in a B~~b~~eneficial H~~h~~olding relationship with an E~~e~~ntity with whom it does not have a ~~long-term~~ contract for the delivery of electricity.
An Electrical Distribution Utility serving as an agent in a Beneficial Holding relationship shall be able to aggregate any Holding Limits allocated to it by Second Registered Entities.

Section 95841. <u>ARB Should Provide Additional Explanation For The Adjusted California GHG Allowance Budget.</u>

PG&E requests further clarification and examination of the cap-and-trade program's allowance budget for the year 2020 as established in Section 95841. The Scoping Plan issued December 2008 included a preliminary estimate of 365 million metric tons (MMT). The cap-and-trade proposed regulation proposes a substantially lower allowance budget of 334.2 MMT. This substantial downward adjustment also appears to reduce the allowance budget for many years prior to 2020. ARB has not provided support for this significant downward adjustment.

The method to establish the preliminary estimate of 365 MMT is clearly described in the December 2008 Scoping Plan:

> "The Scoping Plan must be designed to meet the AB 32 goal of reducing statewide emissions to 1990 levels by 2020. To meet that target, the emissions allowed under a cap-and-trade program, plus expected emissions from sources not included under the program's cap, must be no greater than the 2020 emissions goal." (Appendix C, page C-16.)

The Scoping Plan describes what might be called a "top down" method. The top is set by statute: Statewide emissions in 2020 are not to exceed emissions recorded in 1990, which ARB has established as 427 MMT. Staff first subtracted a safety margin of 5 MMT from the 1990 value, which reduces the overall cap from 427 MMT to 422 MMT. Second, Staff subtracted the expected emissions from sources not included in the cap-and-trade program, which were 57 MMT. Subtracting 57 MMT from 422 MMT yields 365 MMT, which are the allowable emissions from sources within the cap-and-trade program in 2020, or in other words, the allowance budget for 2020. The "top down" approach is simple, logical and only involves emissions in the years 1990 and 2020.

In the cap-and-trade proposed regulation, Staff used data for 2008 to adjust the proposed allowance budget for 2020. (Appendix E, page E-8.) PG&E does not fully understand Staff's adjustment.

The "top down" method highlights a significant increase in Staff's emission projections for 2020 from sectors and sources outside the cap-and-trade program. In the Scoping Plan, as noted above, expected emissions from sources outside in the cap-and-trade program were 57 MMT in 2020. In the final draft regulation, the 57 MMT has increased to 85 MMT.

PG&E appreciates Staff's assistance in providing background information on projections of year 2020 emissions from sources outside the cap-and-trade program, but would like to better understand why the forecast has increased by such a large amount. For example, in the ARB's emission inventory, emissions of gases with high Global Warming Potential increase from about 10 MMT CO2e in 2000 to about 15 MMT CO2e in 2008. Simple extrapolation, ignoring the

recent economic downturn, would suggest a forecast of about 22 MMT CO2e in 2020, but Staff's forecast is 36 MMT CO2e. Using 36 MMT rather than 22 MMT shrinks the allowance budget in 2020, which affects the allowance budgets for the entire program. PG&E therefore requests additional information related to Staff's revised forecasts of emissions outside the cap-and-trade program. In the December 2008 Scoping Plan, the 57 MMT can be calculated by adding the "Projected 2020 Emissions (BAU)" in Table 1 for sectors outside the cap, namely Recycling and Waste, High GWP, Agriculture, and Forest Net Emissions, leading to a figure of 84.4 MMT, and subtracting the "Estimated Reductions from Uncapped Sources/Sectors", shown in Table 2 as 27.3 MMT. The difference is 57.1 MMT.

Section 95852(b)(1). Transactions Of Electric Distribution Utilities Conducted In The Normal Course Of Business Should Not Be Considered Resource Shuffling.

The definition of Resource Shuffling implies a requirement of intent, but its usage in this Section suggests that it could apply more broadly, resulting in an inadvertent violation of the regulation.

For this reason, further discussion and clarification of Resource Shuffling is required. In the course of serving its load at lowest cost, an in-state utility may carry out a transaction known as a "wheel-through" in which electricity is imported into the California Independent System Operator "CAISO" Control Area at one import location and concurrently exported outside of the Control Area at another export location in the same hour of delivery. In this case, it is assumed that the utility would claim zero compliance obligation if the amount imported and exported were the same.

However, it is also possible for an in-state utility to carry out two 25 MW import transactions for a given hour at Location A and only one 25 MW export at Location B in that same hour. If one of the 25 MW imports was from a renewable resource with a zero compliance obligation, and the other 25 MW import was from a natural gas resource, which of these two imports would the utility be required to assign to the 25 MW export for the wheel-through? Under current business practices, it makes no difference and either resource may be paired with the import. From an economic perspective under ARB's proposed regulations, it would make sense for the utility to define the wheel-through based on the natural gas resource in order to have no compliance obligation for the transaction. However, it is unclear if – under the current regulation – this could be considered to be Resource Shuffling by specifying the natural gas resource for the wheel-through transaction rather than the renewable resource, although either would be a permissible business practice.

Section 95852(b)(3). ARB Should Allow RPS-Eligible Out-Of-State Renewable Electricity To Count As Zero GHG.

In Section 95852 of the Cap-and-Trade Regulation, ARB revised existing text to establish requirements for claiming the emission factor of a variable renewable resource (wind, solar or run-of-river hydroelectric) for "substitute" electricity that is delivered in place of the real-time generation. As noted in ARB's summary of proposed changes, this language was added "to

address utility concerns about the treatment of renewable electricity, and to strike a balance between recognizing the value of variable renewable electricity and limiting the possibility for double counting of emission reductions in cases where electricity from a variable renewable resource cannot be directly delivered to California".

Unfortunately, ARB's revisions to the regulation contain provisions that would prevent PG&E from being able to count existing out-of-state RPS-eligible contracts as zero GHG and would greatly limit our ability to count future out of state contracts which we are allowed to pursue under the existing 33% legislation as zero GHG. Complying with the provisions as drafted would impose significant costs on PG&E customers, and could result in less efficient, higher emissions dispatch by constraining replacement electricity to only the balancing authority where the renewable generation originates. These provisions in the proposed regulation are described below:

1) Definitions Section 95802(a)(237) requires that replacement electricity and the renewable resource come from the same balancing authority. Since replacement electricity can in practice be sourced from any number of balancing authority areas, the provision requiring a specific balancing authority area will increase costs and possibly emissions and should be removed. For example, the WECC consists of several inter-dependent balancing authorities. Energy generated in one area may be sold to a buyer in another and this arrangement may help both parties reduce the cost of serving their customers. It would be costly and inefficient to require the replacement energy to come from the same balancing authority.

2) Section 95852(b)(3)(A) requires that that the first deliverers of the replacement electricity have a contract or ownership with the supplier of the replacement electricity. ARB should clarify the definition of the term "contract" and it should be consistent with industry standard usage of the term. That is, a contract for power specifies a delivery location, delivery time, delivery quantity, price and term.

3) Section 95852b(3)(C) states that replacement electricity with an emission factor greater than the default emission factor for unspecified electricity is not eligible to receive an emission factor of zero. Consistent with previous discussions between ARB and stakeholders, we would propose that replacement power procured consistent with the definition for "Unspecified Source of Electricity" be assessed the emissions factor of the underlying renewable resource, which would be zero. Replacement electricity procured consistent with the definition of "Specified Source of Electricity" would be assessed an emission factor, as follows: 1) If replacement electricity is imported in the form of "Specified Source of Electricity," then it would be reported as a specified import, but it would

only be assessed an emission obligation amounting to the positive difference between the emission rate of the specified import and the unspecified rate of .428 metric tons per MWh (i.e. (emission obligation of specified import as measured in metric tons per MWh) minus (.428 metric tons per MWh)). To the extent that the specified import has an emissions rate of less than .428 metric tons per MWh, then the specified import would be assessed an emission obligation of the underlying renewable resource, which would be zero This description would resolve the inconsistency between the MRR and CNT with respect to the treatment of replacement electricity.

4) Section 95852b(4) states that only variable renewable resources would be exempt from direct delivery requirements. We would propose instead that all renewable resources would be exempt from direct delivery requirements.

As part of addressing the foregoing concerns, PG&E requests that the ARB adopt the definition of replacement electricity proposed in PG&E's comments on the MRR, dated August 11, 2011.

Section 95852.1.1. ARB Should Clarify Eligibility Of Offsets From Biomass And Biogas Projects.

PG&E's understanding of section 95852.1.1(b) is that an entity generating energy from biogas or biomass may sell carbon offsets as long as they retain sufficient "carbon credits, carbon benefits, carbon emissions reductions, carbon offsets or allowances" to make the CO2 combustion emissions associated with the generation of energy zero net emitting. To improve clarity, PG&E recommends modifying the last sentence of the section to read:

> "Generation of Renewable Energy Credits or offsets beyond those associated with the combustion of CO2 is allowable and will not prevent a biomass-derived fuel that meets the requirements in this section from being exempt from a compliance obligation."

Section 95852.2(a). ARB Should Modify The Categories Of Wood And Wood Waste Emissions Without A Compliance Obligation.

PG&E appreciates the clarifications that ARB made with respect to emissions without a compliance obligation. However, the tracking and enforcement of sources of wood and wood wastes is extremely difficult for energy generators and should be enforced by agencies with oversight of the harvesting of wood and wood wastes, not the ARB. An electricity generator burning wood waste meeting the California Energy Commission's (CEC) definition of biomass[1/]

1/ "Renewable Energy Program Overall Program Guidebook," California Energy Commission, January 2011, page 19.

has no specific knowledge about the source of the wood being used in their operations. Accordingly, we recommend the following revisions to section 95852(a)(4) to make it consistent with the CEC's definition of biomass:

> (4) Wood and wood wastes from timbering operations ~~identified to follow all of the following practices~~;
>
> ~~(A) Harvested pursuant to an approved timber management plan prepared in accordance with the Z'berg-Nejedly Forest Practice Act of 1973 or other locally or nationally approved plan;~~
>
> ~~(B) Harvested for the purpose of forest fire fuel reduction or forest stand improvement; and~~
>
> ~~(C) Do not transport or cause the transport of species known to harbor insect or disease nests outside zones of infestation or quarantine zones identified by the Department of Food and Agriculture and the Department of Forestry and Fire Protection, unless approved by these agencies.~~

Section 95852.2(b). ARB Should Clarify That Vented And Fugitive Emissions Reported Are Included As Part Of The Natural Gas Supplier Compliance Obligation And Should Not Have An Additional Cap-And-Trade Compliance Obligation.

PG&E supports the formatting revisions that ARB made to Section 95852.2 in the Regulation, but there is still a lack of clarity in this section as to how vented and fugitive emissions from natural gas systems are treated. Vented and fugitive emissions from natural gas systems will be reported to ARB in an indirect manner under Natural Gas Supplier Reporting in Section 95122 of the Mandatory Reporting Rule ("MRR") and the cap-and-trade compliance obligation for these emissions is based on Section 95122. There should be additional language in Section 95852.2(b) that states clearly that the vented and fugitive emissions reported separately in Section 95153 of the MRR do not have an additional cap-and-trade compliance obligation.

Additionally, PG&E notes that Section 95852.2(b)(15), labeled as "other venting and fugitive emissions not specified in the quantification methods," is vague. PG&E recommends that the type of emissions that would be included in this category should be more precisely defined, or it should reference an applicable section of the MRR so that there is no confusion.

Section 95854. Flexibility In The Use Of Offsets Is Necessary To Ensure That The Goals Of AB 32 Are Achieved In A Cost-Effective Manner.

PG&E believes that the use of high quality offsets is an effective cost containment tool and an essential part of a successful cap-and-trade program. Multiple studies, including an analysis by the ARB,[2/] have shown that the costs of the cap-and-trade program are much higher without a robust supply of high quality offsets. At the same time, as the regulation is currently designed, there is a significant chance that there will be insufficient supply of offsets available for

2/ "AB 32 Scoping Plan Economic Analysis," California Air Resources Board, April 21, 2010, page 7.

compliance purposes. For example, in a report by Barclays Capital, analysts forecast that in the second compliance period supply will be less than half of demand.[3/]

The ARB has made multiple updates to the regulation that will help the development of a carbon offset market. PG&E has several further suggestions designed to enhance the updates made by the ARB.

PG&E appreciates the modifications the ARB made to the Quantitative Usage Limit that clarified that the usage limit is calculated based on a complying entity's compliance obligation for a compliance period rather than an entity's annual compliance obligation. However, because analysts forecast that there will be an insufficient supply of offsets at the outset of the program, PG&E requests that the 8% usage limit apply to a complying entity's total compliance obligation from January 1, 2013 through the current compliance year. This will allow time for the offset market to develop projects while maintaining the current cap on the use of offsets. Accordingly, we recommend the following revisions to section 95854(b):

(b) The total number of compliance instruments identified in section 95854(a) that each covered entity may surrender to fulfill the entity's compliance obligation ~~for a compliance period~~ must conform to the following limit:

O_O/S must be less than or equal to L_O

In which:

O_O = Total number of compliance instruments identified in section 95854(a) submitted since January 1, 2013 to fulfill the entity's total compliance obligation ~~for the compliance period~~ through the current compliance year.

S = Covered entity's total compliance obligation beginning January 1, 2013 through the current compliance year.

L_O = Quantitative usage limit on compliance instruments identified in section 95854(a), set at 0.08.

Section 95855. ARB Should Allow Annual Surrender Of Up To 100% Of The Compliance Obligation.

PG&E sees no reason why entities are not allowed to annually surrender up to 100% of their Compliance Obligation. While the Annual Compliance Obligation is set at exactly 30% of annual obligation, entities should be allowed to surrender and have retired up to 100% of their

3/ "I wish they all could be California," Barclays Capital Commodities Research, February 2, 2011, page 12.

annual obligation, if they choose to do so. Accordingly, PG&E suggests the following revisions to section 95855 (b):

> The annual Compliance Obligation for a Covered Entity equals thirty 30 percent of positive or qualified positive GHG emissions reported from the previous data year that received a positive or qualified positive emissions data verification statement, or were assigned emissions pursuant to section 95131 of MRR. Entities have the option to surrender and have retired up to 100% of positive or qualified positive emissions data verification statement, or were assigned emissions pursuant to section 95131 of MRR.

Section 95856. ARB Should Permit Flexibility In Vintage Of Allowance Surrender Requirements.

PG&E believes that additional revisions to Section 95856(b)(2), regarding compliance instruments valid for surrender, are required to ensure that the flexibility associated with the three-year compliance period is retained. As the ARB has recognized, a three-year compliance period is particularly important to ensure that the cap-and-trade market continues to run smoothly during any condition that may affect the power markets (for example, periods of low California snowpack that result in low hydroelectric energy production).

As currently written, Section 95856(b)(2) appears to require that each ton of emissions be covered by an allowance from the same or a prior budget year, so that higher emissions during a dry 2013 could not be covered by 2014-vintage allowances even though the surrender demonstration for the remaining 70% obligation that was accrued in 2013 is not until 2015. PG&E recommends that Section 95856(b)(2) be revised as follows:

> To fulfill any Compliance Obligation, a Compliance Instrument must be issued from an allowance budget year within or before the ~~year~~ Compliance Period for which the Compliance Obligation is calculated . . .”

Additionally, PG&E supports the change from dual annual compliance deadlines to a single deadline of November 1st. PG&E supports the revised deadline to allow more time for covered entities to obtain compliance instruments and limit supply shocks to the market.

Section 95870(c). Allowance Set-Asides Should Support Voluntary Renewables That Provide Actual Reductions.

Section 95870(c) designates percentages that, when applied to allowance budgets for years 2013-2020, would determine the quantity of allowances transferred to the Voluntary Renewable Electricity Reserve.

PG&E believes that because allowances transferred to the Voluntary Renewable Electricity Reserve would no longer be available to greater market participants, the reduction in allowance supply to the market by adding a Voluntary Renewable Electricity Reserve has the potential to increase allowance prices and compliance costs. Therefore, PG&E only supports set asides that achieve actual reductions.

Section 95841.1 requires that a renewable energy credit must be retired prior to the retirement of an allowance from the Voluntary Renewable Electricity Reserve account. Based on discussion at ARB's July 15 public workshop, PG&E understands that the percentages in Section 95870(c) are based on projections, derived from historic data, on demand for Voluntary Renewable Electricity Credits. Therefore, it is possible that the quantity of allowances in the Voluntary Renewable Electricity Reserve Account could exceed the quantity of RECs retired per Section 95841.1, leaving a balance in the account. In the event that allowances in the Voluntary Renewable Electricity Reserve are not retired at the end of each compliance period, PG&E requests that ARB return those unused allowances to the total pool of allowances available to market participants.

Section 95870(d). ARB Should Provide An Allowance Allocation Date For 2012 Auctions.

Section 95870(d) states that electric distribution utilities will be allocated allowances on or before January 15th of each calendar year starting in 2013. ARB should provide an allowance allocation date for the initial auctions that will take place in the second half of 2012 (for 2013 allowances). In addition, PG&E proposes that allocation occurs at least prior to the date in which electric distribution utilities are required to consign allowances to the auction, prior to 12/1 of each calendar year would suffice.

Section 95892. PG&E Supports Allowance Allocation To Electric Distribution Utilities For Protection Of Electricity Customers.

PG&E supports ARB's decision to allocate allowances to electric distribution utilities for protection of electricity customers. The percentage of allowances allocated to each utility as presented in Table 9-3 is based on a methodology described in Appendix A.

PG&E supports ARB's recognition of the "customer cost burden" principle, the inclusion of an "early action" element in the allocation methodology and allocation to electric distribution utilities for the protection of customers. First, PG&E believes that the costs of meeting electric sector GHG reduction goals will flow through commodity markets to customers, and, therefore, revenue from allowance auctions should be used to mitigate those increased customer costs. PG&E has consistently advocated for a return of allowance value, via utilities, solely for the benefit of customers. Second, PG&E believes additional "early action" allocation, above the expected cap-and-trade cost burden, recognizes customers' past investments in low-carbon resources and will help mitigate costs associated with AB 32 electric sector programmatic measures. Finally, PG&E believes that electric utilities are uniquely positioned to return

allowance value to customers because they are subject to state utility commission or board oversight. In fact, PG&E is already working with the CPUC to determine the method for returning allowance value. PG&E will continue to oppose any proposals to allocate allowances to generators, which have neither the necessary regulatory oversight nor the established relationship with customers that would ensure that all utility customers receive the full benefit of allowance revenue.

PG&E supports the aforementioned elements of ARB's allocation proposal, as they appropriately recognize the role that electric utility customers will have in meeting AB 32 goals. Furthermore, PG&E appreciates Staff's work to develop a quantity of allowances allocated to each utility that reflects these important principles (as illustrated in Appendix A).

PG&E understands that ARB intends to return allowance value to the electric distribution utility, including bundled utility customers, along with community choice aggregation customers, direct access customers, and other electricity service provider customers. PG&E suggests that ARB add language to Appendix A clarifying the intent to include all utility customers.

Section 95892. ARB Should Defer To The CPUC On The Use Of Auction Proceeds And Auction Value.

Investor-owned utilities are required to monetize their allocated allowances by consigning those allowances to the quarterly auctions (including a requirement of 1/6 consignment of its 2013 allocation in each of the auctions held in 2012).

Section 95892(d) sets forth restrictions on the use of these auction proceeds, including a requirement that any ratepayer rebate: (1) be applied to "the fixed portion of ratepayers' bills or as a separate fixed credit or rebate" and (2) "shall not be based solely on the quantity of electricity delivered to ratepayers from any period after January 1, 2012."

PG&E continues to have serious concerns with the ARB restrictions on the CPUC-regulated use of auction proceeds specified in Section 95892 including subsection (d)(3)(B) and (d)(3)(C). As PG&E has stated in prior comments, under the California Constitution, the CPUC has exclusive ratemaking jurisdiction over IOU rates.[4/] Article XII, Sections 6 through 8 of the California Constitution give the CPUC the exclusive authority as delegated by the Legislature to set rates for investor-owned public utilities and prohibit other public agencies, including the ARB, from regulating matters over which the Legislature has granted power to the CPUC. Furthermore, AB 32 specifically preserves and reaffirms the CPUC's jurisdiction over utility rates, stating: "(n)othing in this division affects the authority of the Public Utilities Commission." [Health & Safety Code section 38593(a).] Therefore, the ARB's proposal to directly mandate how

4/ The CPUC is a constitutional agency established by Article XII of the California Constitution and "has exclusive jurisdiction over the regulation and control of utilities…." *Anchor Lighting v. Southern California Edison Company*, 142 Cal. App. 4th 541, at 548 (2006); *review denied*, 2006 Cal. LEXIS 13552.

allowance proceeds should be included in CPUC-regulated utility rates in a specific manner exceeds the scope of ARB's jurisdiction and should be deleted.

In deferring to the CPUC and the California Legislature on electric ratemaking matters, the ARB can and should consider the carbon-related conservation and price signals already embedded in existing CPUC-regulated utility rates and programs. The current tiered electricity rate structure mandated for residential customers by the Legislature and CPUC, the carbon price premium directly and indirectly included in wholesale electricity procurement prices and passed through to all retail customers, and the existing utility customer-funded Energy Efficiency programs for all retail customers, provide incentives and support for carbon emission reductions through energy savings.

Any further price signal from the cap-and-trade program would only be imposed on a small subset of customers due to existing rate design restrictions and would disparately punish those upper-tier consuming households who already pay rates for marginal consumption far in excess of cost of service (and thus see very strong price signals to conserve). It would also unfairly and ineffectively punish non-residential customers who already have adopted carbon-minimizing energy efficiency measures (e.g., large but efficient industrial customers would be penalized for being large rather than rewarded for being efficient). PG&E therefore recommends deletion of Sections 95892(d)(3)(B) and 95892(d)(3)(C) in full.

Since IOUs must consign all allocated allowances and use that revenue for the benefit of customers and cannot use revenues for any other purpose, we further recommend amending Section 95892(f) as follows:

> (f) Prohibited Use of Allocated Allowance Value. Use of the value of any allowance allocated to an electrical distribution utility, other than for the benefit of retail ratepayers consistent with the goals of AB 32 is prohibited~~, including use of such allowances to meet compliance obligations for electricity sold into the California Independent System Operation markets.~~

Section 95910. <u>PG&E Supports ARB's Decision To Hold Auctions In 2012</u>.

PG&E supports ARB's decision to conduct two auctions in 2012 prior to the start of the compliance obligation. However, it is critical to test the robustness of the auction systems, design, and protocols through market simulations in the first half of 2012. Equally important is to test the auctions potential vulnerability to manipulation through "table top" and other market simulation exercises, with oversight by market auction experts. Through such testing, ARB would be able to identify possible weaknesses in the design and undertake remedies prior to commercial and financial commitments being made in the first two auctions in 2012.

PG&E believes that ARB adjusted the consignment requirement to 75 days prior to auction in order to allow ARB to process information and publically release auction information 60 days before the auction.

However, PG&E recommends that the consignment requirement be sixty-five days before each auction starting in 2013 as we believe this 5-day window provides ARB sufficient time to sum allowance quantities from the consigning entities and publish auction information sixty days prior to auction. Accordingly, PG&E requests Section 95910(d)(4)(B) to read:

> Beginning in 2013, Allowances consigned to auction through a transfer to the Auction Holding Account at least 65 days prior to the regular quarterly auction will be offered for sale at that auction.

Section 95911. ARB Should Provide Additional Information On Auction Design And Allocate Unsold Consignment Allowances To The Next Auction.

PG&E offers the following comments on Section 95911 which address specific information presented in the regulation. Later in this section, we also identify key questions or details that are not currently addressed in the regulation, but are pertinent to auction design.

Section 95911(b). PG&E appreciates the change ARB made to move unsold future vintage allowances to the Auction Holding Account for sale at the next auction, and PG&E believes similar treatment should apply to current vintage allowances. PG&E has concerns with the proposal described in 95911(b)(4) to move unsold current vintage allowances that are not from the Limited Use Holding Accounts to the three APCR tiers in equal proportion. While dividing them equally among the tiers is better than the previous proposal to move them to the highest tier, PG&E continues to advocate that these unsold allowances be allocated to the next auction instead of the APCR. Unsold allowances in one auction are not necessarily indicative of a long-term oversupply. We propose the following revisions to Section 95911:

> (b)(4)(A) Unsold current vintage allowances ~~shall be transferred equally to the three tiers in the Allowance Price Containment Reserve Account. If the number of allowances unsold is not divisible by three, the transfer of the final allowances shall be to the lowest price tiers.~~ auctioned pursuant to section 95910(c) will be returned to the Auction Holding Account for sale at the next auction.

We also recommend that ARB revise the heading of (b)(4) to remove "when an Auction Settlement Price Equals the Reserve Price." Given the auction rules, see 95911(d)(4), there may be times when there are unsold allocated allowances and the Auction Settlement Price does not equal the Reserve Price.

In Section 95911(b)(3)(B), PG&E recommends ARB further define what occurs when there are unsold consigned allowances. According to the regulation 95911(b)(3)(B), when the auction clears at the auction reserve price, allowances are sold in equal proportion from each consigning entity. As per (b)(5)(A) "Allowances consigned to auction from limited use holding accounts that remain unsold at auction will be returned to the respective source accounts." To address the situation in which the proportion returned does not result in a whole number of sales from a consigning entity, PG&E recommends ARB sell in proportion to the consigned quantity rounded down. After that, the remaining consigned allowances are each assigned a random number and selected to be sold beginning with the lowest number until quantity supplied matches quantity demanded. The consigned allowances that are not sold are then returned to the respective source accounts.

Example:

> There are two entities with 2 allowances consigned each and total demand is 3 allowances. By proportion, each would sell 1.5 allowances. Rounding down, each would sell one allowance. The two remaining consigned allowances (4 consigned, 2 sold) would each be assigned a random number. The one with the lower random number would be sold while the remaining allowance is returned to the source account.

We recommend that ARB revise Section 95911(b)(3)(B) to address this issue as follows:

> When there are insufficient winning bids to exhaust the allowances from a consignment source in section 95911(b)(3)(A), the auction operator will sell an equal proportion of allowances from each consigning entity <u>rounded down. If, as a result of rounding down, there are fewer allowances sold than demanded, then the auction operator will assign a random number to each unsold bundle of 1,000 metric tons of CO2e from a consignment source in section 95911(b)(3)(A). Beginning with the lowest random number assigned and working in increasing order of the random numbers assigned, the auction operator shall sell allowances assigned the random number until the quantity of allowances sold equals the quantity of allowances demanded.</u>

<u>Section 95911(c)</u>. PG&E does not support the lack of Auction Purchase Limits in the second and third compliance periods as noted in Section 95911(c)(2). PG&E believes Auction Purchase Limits should apply to all three compliance periods. Without sufficient Auction Purchase Limits, there is potential that market speculators have the ability to hoard allowance supply simultaneously driving up compliances prices and expediting the depletion of the APCR – both of which result in higher costs for electric distribution utility customers. For this reason, PG&E suggests the following language:

> (c)(2) The auction purchase limit will apply to ~~auctions conducted from January 1, 2012, through December 31, 2014.~~ all auctions.

Additionally, PG&E does not support raising the 10% purchase limit in advanced auctions to 25% as described in Section 95911(c)(3). The advanced auction purchase limit should be consistent with the other auctions. Such a high limit may lead to hoarding and increases the potential for market manipulation in the program.

Section 95911(d). PG&E suggests that ARB add additional language to Section 95911(d)(4) as follows in order to ensure that each potential bid situation is addressed:

> (d)(4) Beginning with the highest bid price, bids will be considered in declining order by price and entities submitting bids at that price will be sold allowances until either:
>
> (A) The next lower bid price is less than the auction reserve price, or there are no additional bids, in which case the ~~current price~~ Reserve Price becomes the auction settlement price; or
>
> (B) The total quantity of allowances contained in the bids at the next lower bid price is greater than or equal to the number of allowances yet to be sold, in which instance, the next lower bid price becomes the auction settlement price and the procedure for resolution of tie bids in section 95911(d)(5) shall apply.

Lastly, PG&E still seeks additional detail in the Regulation on auction design including: credit management process, default management process, definition of security and rating requirements, credit terms, revenue shortfall allocation, and settlements.

Section 95912. Auction Administration Should Be Efficient And Transparent And Will Be Greatly Enhanced By The Addition Of A Market Monitor.

PG&E offers the following comments on section 95912 which address specific information presented in the regulation. Later in this section, we also identify key questions or details that are not currently addressed in the regulation, but are pertinent to how the auction will be administered.

Section 95912(c)(2). PG&E is concerned about the burden to satisfy requirements in subsection (c)(2). As written, the requirement seems too broad, particularly, (c)(2)(D) "The identification of any previous or pending investigation with respect to any alleged violation of any rule, regulation, or law associated with any commodity market or exchange."

PG&E seeks clarity on the requirements of (c)(2)(c). Since market participants are already required to disclose any Beneficial Holding relationships as part of their registration application and subsequent updates, the requirement appears redundant.

PG&E also recommends that (c)(2)(E) be modified to be consistent with 95912(k)(3) which describes the transfer of allowances to winning bidders' Holding Account or Compliance Account:

> (E) The applicant's holding account number and compliance account number.

Section 95912(c)(3). PG&E recommends that the Executive Officer notify the entity within 5 days whether its application is approved.

Section 95912(e). Additionally, restrictions in section (e) restricting communication of information on auction participation do not work as currently written for electric distribution utilities that are regulated by the CPUC due to the current language forbidding those entities from sharing auction participant information with their respective regulators and Procurement Review Groups.

Accordingly, we offer the following revisions to Section 95912(e):

> (e) A registered entity may not communicate information on auction participation with any other entity that is not part of an association disclosed pursuant to section 95914, except as requested by the auction operator to remediate an auction application or for a registered entity to consult with its regulators or any group authorized pursuant to regulatory order to review procurement activities.

Section 95912(h). ARB Should Adjust The Bid Guarantee Requirements For Entities That Are Required to Consign Allowances To The Auction.

PG&E continues to advocate that the bid guarantee requirements outlined in Section 95912(h) be modified as follows to consider auction sales for consigning entities in addition to bids:

> (h)(2) The amount of the bid guarantee must be greater than or equal to the sum of the value of the bids submitted by the auction participant less the consignment quantity multiplied by the Reserve Price.

Additionally, the ARB should notify market participants via e-mail if their bids were not accepted due to a violation of credit or holding purchase limit.

Section 95912(k). PG&E also recommends ARB specify the timeline for which payments are collected and revenues distributed as described in section 95912(k). PG&E recommends that financial settlements occur by the end of the month in which the auction takes place.

PG&E also has additional questions associated with the administration of the auction which are not addressed in the proposed regulatory language. These questions are listed below. If ARB opts to not include this type of detail in the regulation, PG&E requests clarification regarding where this type of detail will be presented.

- What are the consequences for the auction administrator or financial services entity if they release confidential information?
- 95912(g) "All bids shall be submitted to the Executive Officer and will be considered binding offers for the purchase of allowances under the rule of the auction."
    - How will the bids be submitted?
    - What will be the format of the bids?
    - Will there be a template?
    - Will it be through a website?

Furthermore, PG&E supports the direction of the Board as described in Resolution 10-49 to "contract with an independent entity with appropriate expertise that will monitor and provide public reports on the operation of the market, including auctions and reserve sales, on a quarterly basis and recommend appropriate action…". We are concerned that language has not yet been added to the regulation to incorporate the role of the market monitor and seek clarification from ARB regarding where the role and responsibilities of the monitor will be described. Specifically, we recommend that ARB designate in the regulation a Market Monitor with the following authority and responsibilities:

1. **Auction Certification**. The regulation requires that each quarterly auction be certified that it was conducted pursuant to the regulation prior to its official closing. PG&E recommends that the certification of the auction allow up to seven days for ARB and the Market Monitor to review the auction and associated calculations, review participant/group behavior or scan for other suspect activity, and certify results (similar to RGGI) prior to consummation of any trades from that auction. The result of certification would be a report that either:

    a. Certifies that the auction functioned properly, participant behavior appeared reasonable and verifies results (prices, including correcting any potential errors and winners), OR

    b. Notes concerns with the auction (potential concerns could include, but are not limited to, buyer concentrations, suspect

collusion or prices at unreasonable levels) and proposes resolution. Resolution could include declaring the auction a failure (and not executing trades), re-running the auction, or temporarily suspending the auction and compliance obligation.

2. **Market Monitor Reports**. A Market Monitor to monitor auction and bilateral markets and to issue reports after each quarterly auction and at least annually for bilateral markets.

3. **Annual Report on Market Status**. A consultant annually reviews the market, its price levels, participants progress toward compliance, whether any manipulation is occurring and report to participants and the ARB. Reports should be vetted with stakeholders and address their input questions.

Section 95913. <u>ARB Should Establish A Procedure In The Cap-And-Trade Regulation To Automatically Replenish The APCR Should It Become Depleted.</u>

PG&E welcomes the ARB's efforts to address the possibility of higher than expected allowance prices by establishing the APCR. We also appreciate comments made by Board members at the ARB's December 16, 2010 hearing directing staff to recommend corrective action in the event there was a market problem – which could include temporary suspension or making additional supply of allowances available to the market.

We offer these comments based on our experience in the California energy crisis and our desire to see a sustainable and successful cap-and-trade market that sets an example for others to follow. The market failure related to this crisis essentially defeated many of the goals of market deregulation, caused PG&E's bankruptcy, severe financial hardship for other utilities and adverse consequences for consumers and the California economy. Designing a Reserve that will successfully support this program under a wide range of scenarios greatly reduces the possibility that a cap and trade program will experience similar market failure, and defeat the important goals of AB 32.

In part because of this experience, PG&E commissioned a study by Charles River Associates (CRA) to assess the adequacy of the Reserve under a wide range of scenarios. The CRA study concluded that either greater-than-expected economic growth or less-than-expected emissions reductions from program measures and offsets will result in a partial depletion of the Reserve. Both of these scenarios together are projected to fully deplete the Reserve. From this analysis, PG&E concludes that market failure, under certain conditions, is plausible.

A robust Reserve is necessary to manage allowance prices and ensure long-term market success, and we believe the ARB should establish a procedure in the cap-and-trade regulation to automatically replenish the reserve should it become depleted. With language in the regulation

identifying the triggering event and action to be taken, the market will have assurance that a remedy will be in place and will be timely. This will: (1) reduce uncertainty in related markets, such as the electric wholesale commodities market; (2) reassure the investment community that a process will be in place to address a potentially stressed market; (3) discourage speculators from making a quick profit by exploiting the people of California; and (4) provide a clear regulatory process that will be taken, reducing the risk of potential litigation.

We urge the ARB to develop appropriate regulatory language that creates a process to replenish the reserve in the event 1/3 of the APCR allowances are sold. This process may include, but is not limited to an increase in availability of offsets for compliance purposes, temporary suspension of tracking and program compliance obligations, and adjustments to program allowance budgets. We offer these proposals in the spirit of ensuring the cap-and-trade market will be robust, will work for our customers, will provide additional emissions reductions at a fair price, will support the goals of AB 32, and will be an example for others to follow.

In addition to providing a procedure to replenish the APCR, we offer the following comments on the mechanics of purchasing from the APCR.

Section 95913(b). PG&E is concerned that the ARB may allow covered entities in potentially linked GHG emissions trading systems to buy from the APCR. By allowing entities from outside of California access to the APCR, it is possible that the price protections for Californians, including California electric distribution ratepayers, may be compromised. PG&E views this as a critical issue in the overall design of any linkage with other programs.

ARB also noted that their goal in making changes to section 95913 was to simplify and allow the APCR to fill from the lowest price. PG&E agrees with this objective, but the changes as written in the Regulation do not allow for bids to clear from the Reserve efficiently. As such, PG&E proposes the following changes to Section 95913:

Section 95913(c)(3).

(3) Timing.
(A) The first Reserve sale will be conducted on March 29 ~~8~~, 2013.

Section 95913(e)(2)(E).

(E) The financial services administrator will evaluate the bid guarantee and inform the reserve sale administrator of the value of the bid guarantee once it is found to conform to this section and is accepted by the financial services administrator. The financial services administrator will also inform the bidding entity at least 5 days prior to the auction date if the bid guarantee is found to conform to this section and is accepted by the financial services administrator.

Section 95913(f).

(f) Purchase Determinations.

(1) The reserve sale administrator will conduct sales from each tier in succession, beginning with the lowest to the highest priced tier, until either all allowances are sold from the reserve or all the accepted bids are filled.

(2) The reserve sale administrator will only accept a bid

(A) If acceptance of the bid would not result in violation of the holding limit pursuant to section 95920(b); or

(B) If acceptance of the bid would not result in a total value of accepted bids for a covered entity greater than the value of the bid guarantee submitted by the covered entity pursuant to section 95913(e)(2).

(3) If the sum of bids at the tier price, including bids at prices in higher tiers, which are accepted by the reserve sale administrator is less than or equal to the number of allowances in the tier, then:

(A) The reserve sale administrator will sell to each covered entity the number of allowances for which the entity submitted bids for that tier, including those at higher priced tiers, which were accepted by the reserve sale administrator.

~~(B) If allowances remain in the tier after the sales pursuant to section 95913(f)(3)(A) are completed, the reserve sale administrator will assign a random number to each bundle of 1,000 allowances for which entities submitted a bid for the tier above the current tier being sold. Beginning with the lowest random number assigned and working in increasing order of the random numbers assigned, the reserve sale administrator shall sell allowances to the bidder assigned the random number until the remaining allowances in the tier are sold or all bids have been fulfilled.~~

(4) If the sum of bids accepted by the reserve sale administrator for a tier, including bids at prices in higher tiers, is greater than the number of allowances in the tier, the reserve sale administrator will determine the total amount to be distributed from ~~each~~ the tier to each covered entity using the following procedure.

(A) The reserve sale administrator will calculate the share of the tier to be distributed to each bidding entity by dividing the quantity bid by that entity and accepted by the reserve sale administrator by the total quantity of bids which were accepted by the reserve sale administrator; and

(B) The reserve sale administrator will calculate the number of allowances distributed to each bidding entity from the tier by

multiplying the bidding entity's share calculated in section 95913 (f)(2)(A) above by the number of allowances in the tier, rounding the number down to the nearest whole number.
(C) If allowances remain in the tier after the sales pursuant to section 95913(f)(4)(B) are completed due to the rounding down of each bidding entities share, the reserve sale administrator will assign a random number to each bundle of 1,000 allowances for which entities submitted a bid for the tier, including bids at prices in higher tiers, that was not fulfilled. Beginning with the lowest random number assigned and working in increasing order of the random numbers assigned, the reserve sale administrator shall sell allowances to the bidder assigned the random number until the remaining allowances in the tier are sold.

(5) After completing the sales for each tier the reserve sale administrator will repeat the processes in sections 95913(f)(3) and (f)(4) above for the next highest price tier, considering bids in those higher priced tiers adjusted for any allowances awarded in sales of the lower priced tiers, until all bids have been filled or until the Reserve is depleted. At that time the reserve sale administrator will inform the Executive Officer of the sales from the Reserve to each participant.

Section 95920. ARB Should Modify The Holding Limit And Exempt All Allowances In A Compliance Account From The Holding Limit.

PG&E appreciates that ARB has specified that the holding limit does not apply to allowances contained in a limited use holding account, and that the holding limit is applied separately to current compliance allowances and allowances from future vintages. However, PG&E is concerned that the existing holding limit prevents entities with a large compliance obligation from being able to sufficiently physically hedge future obligations and is unnecessarily high for entities that lack any compliance obligation. PG&E believes the holding limit should be established as 100% of each entity's most recent verified emissions plus a fixed holding limit quantity.

PG&E recommends that the formula for calculating the holding limit for current compliance allowances be adjusted downward, as the holding limit is unnecessarily high for entities with little or no compliance obligation. Further, all allowances transferred to an entity's compliance account should be exempt from the holding limit. Entities should be able to designate at the time of bid submission whether any purchased allowances should be placed directly into a buyer's compliance account, bypassing their holding account; if so, then those allowances should also be exempt from the holding limit and the holding limit constraint associated with bidding into the auction per Section 95911(d)(3)(B). PG&E recommends changes to the holding limit language as follows:

We propose the following revision to Section 95920(b)(2):

> (b)(2) The holding limit calculation will not include allowances contained in limited use holding accounts or compliance accounts created pursuant to section 95831.

We propose the following revisions to Section 95920(d)(1):

> (d) The holding limit will be calculated for allowances qualifying pursuant to Section 95920(c)(1) as the sum of:
>
> (1) The number given by the following formula:
>
> Holding Limit = 0.017 ~~0.01~~*Base + 0.00417 ~~0.025~~* (Annual Allowance Budget – Base)

In which:

> "Base" equals 25 million metric tons of CO2e.
>
> "Annual Allowance Budget" is the number of allowances issued for the current budget year.

PG&E recommends ARB clarify that the limited exemptions specified in Section 95920(d)(2)(B) and (C) represent a cap on the number of allowances that will be exempted from the holding limit. PG&E also recommends ARB clarify that on June 1, 2012, this cap will equal the annual emissions contained in the most recent emissions data report. In addition, as stated above, PG&E recommends that all allowances transferred to an entity's compliance account be exempt from the holding limit.

Accordingly, we propose the following revisions to Section 95920(d)(2):

> (d)(2) A Limited Exemption from the Holding Limit is calculated as:
>
> (A) The limited exemption is the number of allowances which are exempt from the holding limit calculation ~~after they are transferred by a covered entity or an opt-in covered entity to its compliance account~~.
>
> (B) On June 1, 2012 the limited exemption cap will equal the annual emissions contained in the most recent emissions data report that has received a positive or qualified positive emissions data verification statement.

(C) Beginning in 2013 on October 1 of each year the limited exemption cap will be increased by the amount of emissions contained in the most recent emissions data report that has received a positive or qualified positive emissions data verified statement during that year.

We propose the following revisions to Section 95920(e):

(e) The holding limit will be calculated for allowances qualifying pursuant to section 95920(c)(2) as the number given by the following formula:

Holding Limit = 0.017 ~~0.01~~*Base + 0.00417 ~~0.025~~*(Compliance Period Budget – Base)

In which:

"Base" equals 75 million metric tons of CO2e.

"Compliance Period Budget" is the number of allowances issued for the future compliance period from which the allowances were sold at the advance auction.

Section 95921. ARB Should Clarify Rules For The Conduct of Trading.

PG&E supports ARB's efforts to establish rules for the conduct of trading but has concerns about the release of confidential information and the lack of detail on market infrastructure and systems that market participants will use as described below.

PG&E encourages ARB to establish a system that allows participants to perform automated reconciliation with the compliance instrument registry. This will allow participants to obtain a complete allowance inventory of accounts in an electronic format to support their own internal automated reconciliation with the registry.

PG&E is concerned about the addition of Sections 95921(d)(1) and (4) regarding the protection of confidential information. Specifically, under 95921(d)(1), PG&E is concerned that the accounts administrator would release sensitive market information on the transaction price and quantity of compliance instruments, which could impact the proper functioning of the market and distort prices. PG&E strongly believes that the accounts administrator should not publicly release information on the transaction price and quantity of compliance instruments for any individual transaction. However, PG&E would support release of information on the aggregate price and quantity of compliance instruments sold in any given week, if the release was delayed until a week after the end of the given week.

Under Section 95921(d)(4), ARB intends for the accounts administrator to release information on the quantity and serial numbers of compliance instruments contained in compliance accounts. Again, PG&E feels that such information is sensitive, and its release would reveal individual entities' market positions. Such information should remain confidentially held by the accounts administrator until the end of each compliance period's surrender date, and after a compliance surrender date concludes, only information about compliance instruments in retirement accounts, not compliance accounts, should be publicly released. As such, PG&E recommends the following changes to 95921(d):

> (d) Protection of Confidential Information. The Executive Officer will ensure that the accounts administrator:
>
> (1) Releases aggregated information, with names of entities withheld at the end of each week on the transaction price and quantity of compliance instruments for transactions recorded by ARB in the previous week ~~in a timely manner~~;
>
> (2) Except as needed for market oversight and investigation by the Executive Officer, protects as confidential all other information obtained through transaction reports;
>
> (3) Protects as confidential the quantity and serial numbers of compliance instruments contained in holding and compliance accounts; and
>
> (4) Releases information on the quantity and serial numbers of compliance instruments contained in ~~compliance~~ retirement accounts in a timely manner no earlier than the surrender date following the end of a compliance period.

In addition, PG&E is concerned about the lack of detail with respect to trades and raises the following questions. If ARB opts to not include this type of detail in the regulation, PG&E requests clarification regarding where this type of detail will be presented.

(a) What is the deadline for which ARB will make a determination for Trade Register?

(b) How will ARB confirm transactions? Through e-mail or other methods?

(c) Can ARB specify a timeframe at which point the transaction cannot be reversed?

(d) How will ARB resolve the circumstance where it determines a transaction should be reversed but a subsequent transaction has taken place such that the initial transaction can no longer be reversed?

(e) How is the trade reported? On paper? Does it list serial numbers? Can this be done on the web? Will it provide a pull down list of serial number blocks to transfer? Can we transfer in an automated way with XML transfer?

(f) How does trade information get transferred? Via web application? XML? Paper?

Section 95922. ARB Should Modify Banking To Include All Compliance Instruments.

PG&E recommends that the banking scope be broadened to include all compliance instruments, not just allowances. PG&E suggests that the language be modified to read:

> (a) ~~Allowances~~ Compliance Instruments Issued for a Current or Previous Compliance Period. A CA GHG ~~allowance~~ compliance instrument or a~~n~~ ~~allowance~~ compliance instrument issued by an approved GHG ETS pursuant to subarticle 12 may be held ("banked") by an entity registered pursuant to section 95830.

Sections 95107, 95858, 96013, and 96014. ARB Should Enforce AB 32 In A Manner That Is Reasonable And Consistent With Other Stationary Source Violations.

The principal enforcement provisions of MRR and Cap-and-Trade ("C/T") rules are in Sections 95107 (MRR) and 95857, 95858, 96013 and 96014 (C/T). Since violations of the MRR rule could directly affect compliance with the C/T rule, these sections will be addressed together.

In evaluating the proposed enforcement provisions, PG&E takes the position that potential liability should be adequate to assure compliance, but should not be so high that the liability would exceed any possible environmental harm. Given the high rates of compliance with local air district regulations governing emissions from stationary sources, it makes sense that the potential liability for violations of the MRR and C/T rules should be in generally the same range as the existing penalty exposure for violations of air district rules. The level of detail required by the MRR and C/T rules, coupled with the complexity of modern power plants, and the quantity of GHG emissions (measured in metric tons of CO_2e), creates extremely large numbers of potential violations, which would lead to unreasonably high potential liability if not addressed appropriately in the regulations. For that reason, PG&E appreciates ARB's elimination of the "per ton, per day" potential penalties that were included in earlier versions of the enforcement language. PG&E also supports ARB's amendments to Section 95857(d) stating that three fourths of the allowances surrendered as a penalty for untimely surrender are transferred to the Auction Holding Account.

PG&E also appreciates ARB's recognition in section 95858 that penalties for unreported emissions should account for the five percent error margin specified in the definition of "material misstatement," and encourages ARB to extend that concept to the other enforcement sections. Section-specific enforcement comments are provided below.

Section 95107. Enforcement (MRR).

PG&E proposes deleting "or contains information that is incomplete or inaccurate" from (a), because these violations are covered in (c).

Powerplants and other large industrial facilities with combustion sources may individually emit more than one million metric tons ("MMT") of CO2 per year. For a facility emitting one MMT per year, even a one percent error could result in over or under reporting 10,000 metric tons. At one violation per ton, with strict liability penalties of up to $1000 per violation, a one percent error results in penalty exposure of up to $10,000,000. To bring potential penalties more into line with current stationary source penalty exposure, PG&E suggests that a more appropriate penalty structure would be one violation per 1000 tons underreported. PG&E also suggests that entities that fail to submit a verified emissions data report be addressed differently than entities that submitted a verified emissions data report but an error was discovered later.

We offer the following revisions to Section 94107:

Section 95107. Enforcement.

(a) Each day or portion thereof that any report required by this article remains unsubmitted~~,~~ or is submitted late~~, or contains information that is incomplete or inaccurate~~ is a separate violation. For purposes of this section, "report" means any emissions data report, verification statement, or other record required to be submitted to the Executive Officer by this article.

(b) Under-Reported Emissions.

(~~b~~1) ~~Each~~For any covered entity that fails to submit a verified emissions data report, each thousand metric ~~ton~~tons of CO2e emitted but not reported as required by this article is a separate violation.

(2) When a covered entity submitted a verified emissions data report for a compliance period but the Executive Officer determined, through an audit or other information, that the entity under-reported its emissions, each thousand metric tons of CO2e for which a compliance instrument is submitted under section 95858(a)(2) for that compliance period is a separate violation

(c) Each failure to measure, collect, record or preserve information required by this article ~~for the calculation of emissions or that this article otherwise requires be measured, collected, recorded or preserved~~ constitutes a separate violation ~~of this article~~except to the extent that the missing data procedures specified in section 95129 are applied.

(d) The Executive Officer may revoke or modify any Executive Order issued pursuant to this article as a sanction for a violation of this article.
(e) The violation of any condition of an Executive Order that is issued pursuant to this article is a separate violation.
(f) Penalties may be assessed for any violation of this article pursuant to Health and Safety Code section 38580. In determining any penalty amount, ARB shall consider all relevant circumstances, including the criteria in Health and Safety Code section 42403(b), and the degree of culpability for the violation.
(g) Any violation of this article may be enjoined pursuant to Health and Safety Code section 41513.

Section 95858. Compliance Obligation For Under-Reporting In A Previous Compliance Period (C/T).

PG&E agrees with the concept that allowance shortfalls resulting from under-reporting for previous compliance periods should be corrected by the surrender of additional allowances, to the extent that the shortfall exceeds five percent of the original compliance obligation. The following markup includes suggested changes to clarify ARB's proposed language, to specify that penalties would not imposed under the C/T rule if the additional allowances are surrendered in accordance with this section, and to add a five year limitations period so that covered entities are not liable for potential shortfalls in perpetuity.

We offer the following revisions to Section 95858:

Section 95858. Compliance Obligation For Under-Reporting In A Previous Compliance Period.

If, after an entity has surrendered its compliance instruments for a compliance period pursuant to section 95856, the Executive Officer determines, through an audit or other information, that the entity under-reported its emissions under MRR for any emissions sources that form the basis for the entity's compliance obligation, then the following shall apply:

(a) If EMd - CO ≤ 0.05CO, then the entity is not required to take any further action.
~~(a) If the difference between the emissions used to calculate the compliance obligation and subsequently used to calculate the number of compliance instruments surrendered pursuant to section 95856 and the emissions determined by the Executive Officer to be under-reported for the sum of those emissions is less than five percent, then the entity is not required to take any further action.~~

(b) If ~~the difference between the emissions used to calculate the compliance obligation and subsequently calculate the number of compliance instruments surrendered pursuant to section 95856 and the emissions determined by~~EMd - CO > 0.05CO, then upon the receipt of notice from the Executive Officer ~~to be under-reported for the sum of those emissions is more than five percent, then~~ the entity must surrender additional compliance instruments for the previous compliance period in the following amount:

$$Cla = EMd - CO - (CO * 0.05)$$

~~Where:~~

(c) Not later than six months from the date the entity receives notification from the Executive Officer that the entity must surrender additional compliance instruments due to under-reported emissions for a previous compliance period, the entity shall surrender the quantity of compliance instruments determined in accordance with subsection (b). The provisions of section 95857 shall not apply and the entity shall not be subject to penalties under this Article if the additional compliance instruments are surrendered during the six month period. The entity may use compliance instruments from subsequent compliance periods to meet this surrender obligation.

(d) For the purposes of this section:

'Cla' is the number of additional compliance instruments that must be surrendered to ARB ~~to cover under-reported emissions~~in accordance with this section;

'CO' is the ~~emissions number used to determine the~~quantity of compliance ~~obligation~~instruments surrendered pursuant to section 95856 ~~for any~~to meet the entity's compliance obligation for the previous compliance period; and

'EMd' is the ~~number of the~~entity's corrected total emissions for the previous compliance period, determined by the Executive Officer ~~for the sum of the emissions sources subject to a compliance obligation;~~.

~~(c) The entity will have six months from the time of notification by the Executive Officer to surrender additional compliance instruments for under reporting emissions under MRR as determined pursuant to this section. The provisions of section 95857 shall not apply during these six months. The entity may use compliance instruments from subsequent compliance periods to meet these requirements. The entity may only use CA GHG allowances or allowances issued by a GHG ETS approved pursuant to subarticle 12 to meet the requirements of this section.~~

(e) Any determination that an entity under-reported its emissions for a previous compliance period shall be made by the Executive Officer no later than five years from the deadline for submission to the Executive Officer of the verified emissions data report for that compliance year.

Section 96013. Penalties (C/T).

As revised below, PG&E supports ARB's proposed amendments to reference violations as specified in Section 96014 and to reference the statutory penalty factors specified in Health and Safety Code Section 42403(b):

Section 96013. Penalties.

Penalties may be assessed pursuant to Health and Safety Code section 38580 for any violation of this article as specified in section 96014. In determining any penalty amount, ARB shall consider all relevant circumstances, including the criteria in Health and Safety Code § 42403(b), and the degree of culpability for the violation.

Section 96014. Violations (C/T).

PG&E supports ARB's proposed amendments to Section 96014(a) to specify that there is no violation for failure to surrender a sufficient quantity of compliance instruments unless the untimely surrender requirements of Section 95857 are not met. However, PG&E believes that a "per ton" penalty is inappropriately high, and should instead be one violation per 1000 tons, as suggested earlier.

As written, Section 96014(a) and (b) appear to impose penalties twice for the same shortfall in allowance surrender, except that the penalty in (b) is "per ton, per day." PG&E suggests that ARB either delete (b), or clarify (b) to impose only a "per day" penalty for allowance surrender after the end of the untimely surrender period (with the "per 1000 tons") penalty applied once pursuant to (a).

Section 96014(c) appears redundant and unnecessary, since the violations specified there would already be considered violations under the general obligations referenced in (d). PG&E recommends that ARB either delete (c), or revise (d) to state that a submission may be considered a violation under (c) or under (d), but not both.

We offer the following revisions to Section 96014:

Section 96014. Violations.

(a) If an entity fails to surrender a sufficient number of compliance instruments to meet its compliance obligation as specified in sections

95856 or 95857, and the procedures in 95857(c) have been exhausted, there is a separate violation of this article for each 1000 required compliance ~~instrument~~instruments that ~~has~~have not been surrendered, or otherwise obtained by the Executive Officer under 95857(c).

~~(b) There is a separate violation for each day or portion thereof after the end of the Untimely Surrender Period that each required compliance instrument has not been surrendered.~~

(~~c~~b) It is a violation to submit any record, information or report required by this article that:

(1) Falsifies, conceals, or covers up by any trick, scheme or device a material fact;

(2) Makes any false, fictitious or fraudulent statement or representation;

(3) Makes or uses any false writing or document knowing the same to contain any false, fictitious or fraudulent statement or entry; or

(4) Omits material facts from a submittal or record.

(~~d~~c) The violations stated in section 96014(~~c~~b) are in addition to an entity's obligations under other provisions of this article requiring submissions to ARB to be true, accurate and complete. A submission may be considered a violation of section 96014(b) or of the obligations referenced in this section 96014(c), but not both.

Sections 95973, 95981.1, 95985 and 95990. Flexibility And Certainty In The Use Of Offsets Is Necessary To Ensure That The Goals Of AB 32 Are Achieved In A Cost-Effective Manner.

PG&E supports the use of high quality offsets as an effective cost containment tool. Multiple studies, including an analysis by the ARB,[5/] have shown that the costs of the cap-and-trade program are much higher without a robust supply of high quality offsets. At the same time, most analysts believe that, as the regulation is currently designed, there will be insufficient supply of offsets. For example, in a report by Barclays Capital, analysts forecast that in the second compliance period supply will be less than half of demand.[6/]

The ARB has made multiple updates to the regulation which will help the development of a carbon offset market. PG&E has several suggestions designed to enhance the updates made by the ARB.

Section 95973. ARB Should Clarify The Requirements For Using Compliance Offset Protocols.

The last sentence in Section 95973(a)(2) implies that the items in (A) through (C) are for Early Action Offset Protocols, rather than Compliance Offset Protocols which is what PG&E believes

5/ "AB 32 Scoping Plan Economic Analysis," California Air Resources Board, April 21, 2010, page 7.
6/ "I wish they all could be California," Barclays Capital Commodities Research, February 2, 2011, page 12.

was intended. We recommend that the sentence "Early action offset projects which transition to the compliance offset program pursuant to section 95990(k) must meet the requirements of that section" should be added as a new item under section (a).

Section 95981.1. ARB Should Provide A Timeline For Issuance Of ARB Offset Credits And Review Of Verification Statements.

PG&E welcomes the added language on the process for issuing offset credits. The one recommendation PG&E would make to this section is the addition of a deadline for ARB to determine the completeness of a submission by a project operator. PG&E would like to suggest that a deadline of 30 days be added to the regulation. PG&E is supportive of the other deadline additions, including that ARB will issue credits to offset project operators 30 days after it determines completeness, that ARB will then notify the project operator 15 days later, and ARB will place credits in the account 15 days later. Accordingly we recommend the following revisions:

Section 95981.1. Process for Issuance of ARB Offset Credits

(a) ARB will review the Positive Offset or Qualified Positive Offset Verification Statement within 30 calendar days after submission to ARB by an Offset Project Registry, Offset Project Operator, Authorized Project Designee, or any other third party authorized by the Offset Project Operator.

Section 95985. Modification To Offset Buyer Liability Is Necessary For A Robust Offset Market.

PG&E supports the addition of a process, timeline, and the clarification of the circumstances which can lead to the invalidation of offsets. However, PG&E is concerned that ARB's current approach to invalidation will ultimately result in a small volume of high-cost offsets.

a. Insurance Products.

ARB believes that a market of insurance products will be created to address the risk of invalidation. PG&E has investigated the potential for insurance products and has received feedback that it is not easy to quantify and price the risk and that developing a policy requires large volumes of credits to be insured. In addition, the expected volatility of pricing around offsets makes pricing of this type of insurance product particularly difficult.

The only comparable product that exists is Carbon Credit Delivery Guarantee insurance available for Clean Development Mechanism projects trading under the European Union's Emission Trading Scheme. This insurance protects against counterparty default, initial regulatory project approval, and the risk of the project not generating the forecasted volume. Even though this is an easier product to develop because the risks are easier to quantify, there have only been a handful

of policies written. These products added approximately 15% to the costs of the project and, unfortunately, the insurance does not completely cover the risks as the cost is fixed to the price of the offset, exposing the insured to the market risk if the offset is not delivered.

What is being proposed in the AB 32 cap-and-trade regulations is a fundamentally different product. An insurance product in California would need to cover a post-delivery risk that does not exist in any other market. According to insurance companies and brokers, this risk cannot be easily quantified. Because of the quantification risk, only the largest projects would be able to obtain such insurance. Smaller offset projects, such as manure digesters, will either not develop, or will be very expensive to develop. In addition, premiums for such projects are expected to higher than those for Carbon Credit Delivery Guarantee insurance.

One of the companies that has been investigating the offset insurance market is Fidelity National Title Insurance Company (Fidelity). Fidelity is evaluating the potential for a type of title insurance for compliance instruments. This insurance would provide clarity for the chain of ownership of compliance instruments. It would not, however, protect against the potential invalidation of an offset that turned out to be "not true, accurate, or complete."

Some have asserted that complying entities can manage their liability risk through contractual language. The primary remedies a complying entity may seek are inclusion of liquidated damages and indemnification clauses in their contracts with sellers of offsets. In our investigation, PG&E has learned that at least one of the largest developers of offsets would not sign such contracts. Even if the offset seller was willing to accept such contractual language, the seller would need to remain solvent or post significant amounts of collateral with PG&E for the entire invalidation period in order to limit PG&E's liability. Even if they are willing to post, offset sellers are likely to build the cost of collateral and additional risk into the cost of the offset, which will shift the cost to PG&E and other offset purchasers. Because only the largest projects would be able to meet such collateral requirements, the available supply of offsets would be even more restricted than predicted.

If a buyer liability approach cannot be avoided, PG&E supports two potential approaches to address the potential risk of invalidation. The first is the development of a Compliance Buffer Account funded through the hold back of a percentage of credits from every offset project. This account could be managed by the ARB as the Forest Buffer Account or be managed separately by a third party. Under this proposal, the market itself bears the risk of invalidated credits. Rather than requiring each buyer to manage this risk on a project-by-project basis, this proposal effectively has the entire market taxing itself – by taking issued credits out of the market – in order to create a buffer account that ensures the environmental integrity of the program. ARB staff has posed the question about what would happen should the Compliance Buffer Account become depleted. This could be addressed by increasing the percent held back from a project if more than 50% of the offsets are withdrawn from the Compliance Buffer Account.

The second approach would be a "double verification" of all projects. This is similar to Section 95985(b)(6), which allows the reduction of the statute of limitation from eight to five years "if an

offset project is verified after three years of ARB offset credit issuance." PG&E recommends that ARB simply allow the invalidation period to expire upon the date of ARB's acceptance of the second verification. We see no reason to require that a second verification "sit" for five years before lifting the shadow of invalidation. Nothing is gained from the passage of time – and yet, the marketplace will not consider the credit valid and marketable for the length of that period.

b. Statute Of Limitations.

PG&E appreciates the development of an eight year statute of limitations for an offset project and the reduction of the eight year statute of limitations to five years if an offset project is verified after three years of ARB offset credit issuance. As stated above, PG&E recommends the addition of a double verification option prior to offset credit issuance.

c. Invalidation for Overstatement.

It is PG&E's understanding that if an Offset Project Data Report contains errors that overstate reductions or removals by more than five percent, it will result in invalidation of all credits associated with that report, not just the overage. PG&E feels this is overly burdensome and unnecessary to maintain environmental integrity. It implies that the over-crediting of a project means that all the credits from the given vintage should not have been issued. PG&E believes that the conservative protocols and rigorous verification and issuance process should eliminate projects that could have the potential for over-crediting. PG&E therefore proposes the following revisions to section 95985:

Section 95985. <u>Invalidation Of ARB Offset Credits</u>.

(a) An ARB offset credit issued under this Article will remain valid: unless invalidated pursuant to sections 95985(b) and ~~(c)~~ <u>(d)</u>.

(b) ARB may determine ~~within~~ <u>by no later than a date that is the earlier of a post-issuance verification of the Offset Project Data Report by a different verifier and</u> 8 years ~~of~~<u>after</u> issuance, except as provided in section 95985(b)(5) and (6), that an ARB offset credit is invalid for the following reasons:

(1) ARB determines that information provided to ARB by verifiers, verification bodies, Offset Project Operators, Authorized Project Designees, or Offset Project Registries, related to an offset project was not true, accurate, or complete; or

(2) ~~The Offset Project Data Report contains errors that overstate the amount of GHG reductions or GHG removal enhancements by more than 5 percent; or~~

(3) The offset project did not meet all local, state, or national regulatory requirements during the time covered by an Offset Project Data Report; or

(4) ARB determines that offset credits have been issued in any other voluntary or mandatory program within the same offset project

boundary or for the same GHG reductions or GHG removal enhancements.

(5) If an offset project is developed under Compliance Offset Protocol U.S. Ozone Depleting Substances Projects, ARB may invalidate within five years of issuance of the ARB offset credits covered by an Offset Project Data Report.

(6) If an offset project is verified after three years of ARB offset credit issuance by a different offset verifier, ARB may invalidate within five years of issuance of the ARB offset credits covered by an Offset Project Data Report.

(7) An update to a Compliance Offset Protocol in itself, will not result in an invalidation of ARB offset credits issued under a previous version of the Compliance Offset Protocol.

Section 95987. Offset Project Registries Could Manage Compliance Buffer Accounts.

PG&E appreciates the addition of Section 95987(k) to the regulations, allowing an Offset Project Registry to offset an insurance mechanism. An Offset Project Registry could serve as a third party administering a Compliance Buffer Account, but for such an account to be effective, contribution to the Account should be mandatory for all offset credit projects and triggers should be included to increase contribution to the Account if more than 50% of the offsets are withdrawn due to the provisions in 95985.

Section 95990. Changes To The Regulation Support Additional Offset Supply.

PG&E supports the addition of Section 95990(c)(5)(E) which would allow for the inclusion of additional early action offset project protocols. The inclusion of additional early action offset project protocols will help address PG&E's concerns regarding the expected shortage of offset credits early in the program.

PG&E also supports ARB's revisions to the Early Action section, which allow a "desk review" of projects for re-verification and further supports ARB's decision to allow the same verifier to do a desk review for all vintage years at the same time. To leverage the verification conducted by these projects and encourage them to participate in the cap-and-trade program, PG&E recommends the desk review focus on whether the initial verification conforms to the ARB's standards. The verifier would confirm that the initial verification sampled the right type and quantity of data, used the correct verification methodology and that the conclusions were reasonable. The verifier would not independently verify the data used or attempt to establish his or her own opinion on the project. This would encourage these existing projects to undergo the verification to become Early Action Offset Credits.

PG&E found a misspelling of "section" in 95990(i)(1)(E).

PG&E appreciates the addition of Section 95990(k), which requires projects to transition to the ARB protocol no later than February 28, 2015. It is PG&E's assumption that, because the Climate Action Reserve protocols listed in Section 95990(c)(5) do not specify a timeframe for the annual verification, an Early Action Offset Project has "nine months after the conclusion of each Reporting Period" to verify its 2014 offset credits consistent with Section 95977(d). Therefore an Early Action Offset Project "must be listed with ARB or an Offset Project Registry by February 28, 2105" (Section 95990(k)(3)(C)), but has until September 30, 2015 to complete the verification of its 2014 offset credits.

Additional Protocols

While PG&E understands that a separate rulemaking is required for additional offset protocols, PG&E is supportive of and encourages the speedy approval of additional protocols. Using the current data from the Climate Action Reserve's database, PG&E has updated its offset forecast. This forecast predicts that the four protocols under consideration by the ARB will generate approximately 15 million metric tons by the end of the first compliance period and approximately 30 million metric tons by the end of the second compliance period. PG&E reviewed the potential of the other Reserve protocols and the Nitric Acid Production, U.S. Landfill, and Article 5 Ozone Depleting Substances Protocols show the greatest potential to generate sufficient offset volume so that complying entities can use up to 8% offsets to meet their compliance obligation. PG&E also recommends that the ARB consider the American Carbon Registry's Conversion of High-Bleed Pneumatic Controllers in Oil & Natural Gas Systems and the Reserve's Coal Mine Methane, Organic Waste Digestion, and Organic Waste Composting Protocols as high quality protocols capable of generating robust volumes of offsets.

Linkage to External Greenhouse Gas Emissions Trading Systems

PG&E supports linkage to other greenhouse gas emissions trading systems as a way to enlarge the cap-and-trade market. PG&E encourages the ARB to develop linkage agreements with other Western Climate Initiative jurisdictions.

Development and Approval of Sector-Based Crediting Programs

PG&E supports the development and approval of sector-based offset crediting programs. PG&E commends the ARB for establishing a working group which is developing recommendations for Reducing Emissions from Deforestation and forest Degradation ("REDD") offset criteria which can be adopted by the Board and bring REDD credits into the cap-and-trade program. Because of the lead time required to develop the necessary infrastructure for REDD credits, PG&E encourages the ARB to develop a timeline and milestones for the development and approval of REDD criteria and agreements.

Thank you for the opportunity to submit these comments. We look forward to continuing our work with the ARB and all concerned stakeholders to ensure the successful implementation of AB 32.

Very Truly Yours,

/s/

John W. Busterud

JWB:kp