BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA AND THE CALIFORNIA ENERGY COMMISSION

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

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

Energy Commission Docket 07-OIIP-01

OPENING COMMENTS OF PACIFICORP (U 901 E) ON ADMINISTRATIVE LAW JUDGES' RULING REQUESTING COMMENTS ON EMISSION REDUCTION MEASURES, MODELING RESULTS, AND OTHER ISSUES; INCORPORATING MATERIALS INTO THE RECORD; AND RECOMMENDING OUTLINE FOR COMMENTS



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Pursuant to the Administrative Law Judges' Ruling Requesting Comments on Emission Reduction Measures, Modeling Results, and Other Issues; Incorporating Materials Into the Record; and Recommending Outline for Comments, dated May 13, 2008, PacifiCorp respectfully submits these opening comments relating to regulation to be used to reduce greenhouse gas ("GHG") emissions in the electricity sector. PacifiCorp appreciates the opportunity to provide further comments in this proceeding on these important issues.

I. <u>SUMMARY</u>

PacifiCorp is one of the West's leading utilities, serving more than 1.6 million customers in six western states (California, Idaho, Oregon, Utah, Washington, and Wyoming). PacifiCorp also has ownership interests in thermal generation units located in three additional western states (Arizona, Colorado, and Montana). In California, PacifiCorp serves approximately 46,500 customers in Del Norte, Modoc, Shasta and Siskiyou counties. PacifiCorp has more than 10,400 megawatts of generation

capacity on a system-wide basis from coal, hydro, wind power, natural gas-fired combustion turbines, solar and geothermal.

The Ruling requests responses to several specific questions, which PacifiCorp outlines below in the order in which they were suggested. Importantly, PacifiCorp respectfully requests that the California Public Utilities Commission (the "Commission") and the California Energy Commission (the "CEC") not perceive the absence of comments by PacifiCorp on any specific issue or other matter as a conclusive indication of PacifiCorp's lack of interest with respect thereto. PacifiCorp acknowledges the ongoing nature of this proceeding and reserves the right to present additional comments at a future time, as necessary.

As part of a broader, economy-wide cap-and-trade program, California should adopt allowance budgets for the electricity sector that focus on stabilizing emissions and achieving modest reductions from current levels by 2020. Currently, there are only three near-term options for reducing emissions from electricity generation: 1) redispatch existing generation; 2) add new generation to cover load growth and generation retirements; and 3) substitute new generation to cut existing generation emissions. California's electricity sector emissions cap and ratchet must reflect the lead times to build new capacity and recognize other constraints on operations, transmission, and new investment.

During the proceedings, PacifiCorp supported a source-based point of regulation. To the extent the California Air Resources Board ("ARB") adopts the first deliverer approach as the point of regulation for the electricity sector California should allocate allowances based upon emissions physically occurring within California separately from allowances based upon emissions physically occurring outside of California. Allocating allowances separately will make it easier to eliminate allowances based upon out of state emissions once a source-based regional and/or national program is launched.

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PacifiCorp supports a free allocation of allowances based upon the joint staff's preferred emissions-based approach. The transition to a low-carbon economy is a significant undertaking and the costs of doing so are, likewise, significant. An allocation based on historic emissions allows for such a transition while, at the same time, managing the cost impacts on such a transition in electricity rates and avoiding disproportionate impacts on customers based on an existing generation portfolio. It is important to recognize that the decisions to build fossil fueled power plants, which were made over many decades and were intended to achieve a fuel mix, were economically rational and, in virtually all cases, approved as prudent by regulatory authorities. Retail providers and their customers should not be punished for past prudent decisions. PacifiCorp also vigorously opposes providing allowances to non-emitters based on "benchmarking" or megawatt-hour "output-based" methodologies which would simply create large wealth transfers among utilities that is unrelated, and potentially contrary to, the overall goal of GHG emissions reduction. It is unclear what public purpose would be served by distributing allowances to non-emitters. Utilities that built hydroelectric dams many decades ago or nuclear plants in the sixties and seventies did not do so to avoid GHG emissions and there is no reason to provide them with a financial windfall. These zeroemitting resources do not bear the burden or the direct costs of effectuating GHG emissions reductions.

To establish each existing emitter's share of the freely allocated allowances, a GHG baseline would need to be calculated using the most recent emissions data. PacifiCorp supports calculating a GHG baseline using multiple historical years.¹ A baseline should rely on historical CO_2 emissions data from all existing emitters, using data from a five year period prior to the rule's effective start date. California would drop

¹ When establishing a GHG baseline, evaluating a larger number of years allows the state to more equitably address year-over-year hydro production variability and accommodate unit-specific concerns, such as reduced emissions as a result of scheduled maintenance or unscheduled outages.

data from the years with the highest and lowest emissions for each existing emitter. Average emissions for the three remaining years would form the basis for calculating the historic emissions for each existing emitter. The sum of all existing emitters' historic emissions would establish the GHG baseline. Each emitter's ratio to the GHG baseline would define its share of free allowances (i.e., an emitter would multiply its ratio against each year's freely allocated allowance budget). Note, an existing emitter's ratio would not change, regardless of the decline in the overall allowance budget or in the case of a gradual transition to an auction method for distributing allowances. This predictability is extremely valuable to regulated entities for resource planning purposes, but necessitates an allowance set-aside for new entrants.

PacifiCorp supports some nominal amount (< 3 percent) of the overall allowance budget being set aside each year for new market entrants (for projects that will produce GHG emissions) prior to the distribution of the remaining allowances. At the end of each compliance year, the ARB would pro-rate any unused "new entrant" allowances to the various regulated entities. ARB would set the size of the allowance pool through rulemaking.

While the staff's preferred fuel-differentiated, fossil-only output-based allowance allocation approach would potentially eliminate the need for a new entrant setaside and eliminate the potential for windfall profits (i.e., wealth transfers among retail providers), it would also eliminate the highly valued predictability of future free allowance allocations, making it difficult to reliably forecast compliance costs.

PacifiCorp has expressed support for some nominal level of auction (≤ 5 percent) at the beginning of a cap-and-trade program to ensure market liquidity and an opportunity for trading. PacifiCorp also supports conducting at least two auctions a year. Auction proceeds should be returned to the retail providers according to staff's preferred auction approach (on an emissions basis) in order to mitigate rate impacts. The amount of allowances to be auctioned each year should be the subject of future ARB rulemakings

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with a goal of achieving the best combination of cost, fairness, and enforceability. PacifiCorp also supports the joint staff's preferred emissions-based approach to recycling of auction proceeds to retail providers for use toward achieving the overall goal of GHG emissions reductions. PacifiCorp supports a slower rate of transition in the early years from freely allocated allowances to an auction, and similarly would have concerns with a transition from an emissions-based recycling of auction revenues to recycling revenue on an output/sales basis.

PacifiCorp is concerned about the creation of artificial scarcity. Where allowances are bought and sold, there is a risk of, and, indeed, an incentive for, nongenerators to acquire allowances. Financial speculators could participate, hoping to acquire allowances cheaply and sell them to companies that need them to operate at a higher price. The risk alone could drive up prices. As the cost of acquiring allowances eventually will be passed on to electricity consumers, market manipulation that drives up the cost of allowances, the supply of which will be limited, should be prevented. Restricting market participation is the most direct way to address this risk. Restricting the amount of allowances to be purchased or the length of time they may be held by certain types of market participant may be another means of preventing arbitraging.

PacifiCorp supports unlimited allowance banking, whereby a regulated entity could "bank" any surplus allowance for use within a future compliance period. However, to address artificial scarcity, auctioned allowances should have an identified expiration date, such as five years from the date of auction. Such a rule would ensure market liquidity and discourage arbitrage and the exercising of market power.

PacifiCorp also supports additional allowances be allocated as recognition of early action (i.e., "early action" allowances). These allowances would be in addition to those issued in subsequent years as part of the cap. The purpose of this mechanism is to fully reward and encourage all legitimate early actions to reduce GHG emissions.

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Unlimited carbon offsets should be allowed to the extent they can be verified. The electricity sector should have the flexibility to pursue the lowest cost carbon reductions, even if they occur outside of the electricity sector. These carbon offsets should be bankable and would be surrendered for compliance purposes in addition to any allowances. Including a carbon offsets program will spur technology development and innovation in sectors, sources, and locations not included within the cap-and-trade system. This is particularly true for certain sectors such as Agriculture and Forest Management which could have significant potential for creating offsets from projects that sequester CO₂ emissions. PacifiCorp supports broad offset project eligibility criteria and international projects should be eligible provided they satisfy minimum verification standards set by the ARB, or preferably set by a national or international organization. Reducing GHG emissions, reliably, in some other part of the United States or the world will have just as significant a benefit as making an equivalent GHG emissions reduction within California. Over time (or if linked to a compliance cost containment mechanism) the ARB may limit certain offset credit use. The need for offset credits may also be larger early in the program, when capped sources have not yet had much time to implement new technologies or have found it prohibitively costly to prematurely replace their current equipment. Conversely, the demand for offset credits could be greater in later years, as reduction requirements become larger. As more of the world implements GHG emission reduction programs over time, such action would also limit the amount of uncapped sources that would be eligible to generate offset credits.

PacifiCorp also supports compliance cost control mechanisms. For example, if the allowance market hits an established price (i.e., \$ per allowance) it triggers a change to the overall program, such as the selling of additional allowances; expansion of the availability of certain flexible compliance mechanisms, such as the increased use of carbon offsets; deferring of interim targets until the market conditions improve, and etcetera. The purpose is to protect customers and the California economy from the risk of economic harm during the initial stage of the market mechanism by setting a reasonable limit on the price of allowances. The amount and its duration are key design criterion which should be informed by subsequent ARB modeling of the economy-wide cap-and-trade program.

Finally, the cap-and-trade program should allow for up to five year (multiyear) averaging, as well as grant a regulated entity the ability to choose in which year to make its compliance filing. Such flexibility allows a regulated entity to better manage different types of compliance risk (i.e., hydro variability, new project construction delays, and etcetera), as well as take steps to discourage the creation of artificial scarcity within the allowance trading market.

II. <u>GENERAL ISSUES</u>

May 13, 2008 Questions:

Question 3. For any non-market-based emission reduction measures for electricity discussed in your opening comments, are there any overlap or compatibility issues with the potential electricity sector participation in a cap-and-trade program? Explain.

a. Carbon Capture and Sequestration ("CCS"):

In an effort to develop and commercialize CCS technologies, California should consider a non-market based emission reduction measure either requiring or providing incentives to utilities to add carbon dioxide (" CO_2 ") capture-equipped fossilfueled generation to their resource portfolios (or pursue the retrofit of existing fossilfueled generation) and then operate and/or contract for the transport and sequestration of the captured CO_2 . While CCS is more frequently linked to coal-fueled electricity generation, to achieve California's longer term greenhouse gas emission reduction goals, CCS projects will likely be necessary for existing and newly built natural gas and biomass generation. Knowing whether CCS is viable sooner rather than later benefits regulated entities that must make electricity generation resource decisions that will be in operation for many decades.

As far as potential overlap or possible compatibility issues with a cap-andtrade program, allowances could be used to provide incentives for the development of CCS projects. For example, recently proposed federal cap-and-trade legislation² proposes allocating 3% of its annual emissions cap during 2112-2025 to provide bonus allowances for CCS projects that (1) begin operation during 2008-2035, and (2) meet emission performance standards. The pool of bonus allowances for CCS would decline to 4% during 2026-2030, and 1% during 2031-2050. The proposed bonus allowance rate is 2:1 allowances per ton of CO₂ sequestered during 2012-2017 after which it declines to 0.5:1 during 2030-2039. Bonus allowances would be distributed to projects during the period 2012-2039.

However, if allowances are not used to provide incentives for the development of CCS projects, California should recognize sequestered emissions as tradable carbon "offsets" within a cap-and-trade program. Financial stakeholders in CCS projects would presumably have an equity ownership interest in the "offsets" created by the storage project.

b. Repowering/Retirements:

Repowering and retirement of high GHG-emitting fossil-fueled plants should also be considered a viable emission reduction measure. Concerning potential overlap or possible compatibility issues with a cap-and-trade program, to provide incentives for the early repowering or early retirement of high GHG-emitting fossilfueled plants, California should continue to allocate allowances for a predetermined period of time, such as a fossil-fueled plant's remaining depreciable life used to support

² See, Senate Bill 3036, "Lieberman-Warner Climate Security Act of 2008; Title X – Future of Coal, Subtitle A – Kickstart for Carbon Capture and Sequestration" (May 21, 2008)

current rates.³ California should also develop policies to provide incentives for such decisions if free allowances are ultimately not allocated based upon historic emissions (i.e., credit for early action, auction revenue distributed based upon historic emissions, and etcetera).

Question 10. What evaluation criteria should be used in assessing each issue area in these comments (allowance allocation, flexible compliance, CHP, and emission reduction measures and policies)? Explain how your recommendations satisfy any evaluation criteria you propose.

PacifiCorp approaches key challenges through a multi-stage process whose primary components are – assess, plan, execute, measure and adjust. Applying these same tools to the challenge of dealing with carbon emissions and climate change, PacifiCorp recommends that California implement a multi-phased, economy-wide approach that <u>matches each issue area to reasonable expectations of technology</u> <u>development</u>.

a. <u>Allowance Allocation</u>:

Utilities that have largely divested themselves of fossil generation (not because of carbon constraints, but rather because of electricity market restructuring policies) face much different risks compared to utilities that still own their fossil generation. Since CO_2 emissions control equipment for existing fossil-fueled generation either does not yet exist or is not commercially available, immediate compliance with stringent CO_2 emissions caps translates into mothballing of existing units before the end of their useful life (i.e., stranded costs) and the construction or procurement of new low-GHG resources. Rate impacts could be tempered by energy efficiency and demand-side management, but not solved by them. For vertically integrated utilities, such as PacifiCorp, the risks to its customers are disproportionately higher compared to the

³ PacifiCorp recognizes that free allowance allocations will decline as the emissions cap declines or as free allowance allocations are phased out in favor of another allocation approach (i.e., auction).

customers of other California utilities who have already divested themselves of fossilfueled generation. Given the lack of technological options, free allowances should be allocated based upon historical emissions, with that allocation declining over time as the cap declines.

b. Flexible Compliance:

To the extent regulated entities pursue compliance strategies that rely on existing technology build-outs, those plans can be delayed unexpectedly due to unforeseen circumstances. The cap-and-trade program must provide regulated entities flexible compliance options to mitigate this type of technology risk. For example, much emphasis has been placed on transmission expansion to stimulate additional renewables development.⁴ Policymakers recognize that the existing transmission system in the West is nearly fully utilized and contains some of the most congested paths in the country; that transmission expansion in the west is very capital intensive - often there are long distances between resources and customers; and finally that the current transmission pricing policy of "first in, pays" approach creates a barrier for some renewable projects, specifically those located in remote areas.⁵ Transmission expansion projects are at further risk of delay because of their regulation at the state and federal level, as well as the local level with local political subdivisions issuing conditional use permits. At the end of the day, many people simply oppose a new transmission line because it is in their backyard, front yard or community, even if it is meant to facilitate additional renewable resources. Anticipated emission reductions or avoided CO₂ emissions tied to the greater use of zero-emitting renewables may ultimately be stymied by delays in critical

⁴ California is pursuing its Renewable Energy Transmission Initiative ("RETI") (See, <u>http://www.energy.ca.gov/reti/index.html</u>) and the Western Governors' Association has launched the Western Renewable Energy Zones ("WREZ") project (See, <u>http://www.westgov.org/wga/initiatives/wrez/</u>).

⁵ This issue is further complicated since renewable energy is "location-constrained", meaning that unlike conventional fuel sources where there is a pipeline/rail vs. wire decision, the fuel source for many renewables cannot be shipped (wind, solar, geothermal).

transmission investments. As such, the ability to take advantage of flexible compliance mechanisms will allow a regulated entity to better manage its compliance risk.

c. Combined Heat and Power:

Although cost savings and enhanced reliability are the fundamental drivers for energy users to adopt on-site generation, they are not always persuasive leaving an energy user unwilling to commit to an on-site generation project. Cost of technology issues are barriers if not addressed. Examples include the company's financial position and/or the state of the economy; availability of financing from the vendor/project specific warranties or provided: service developer; guarantees agreement included/offered; addressing environmental or permitting issues; electric service provider's flexibility, or lack thereof, in resolving tariff and interconnection issues; fuel prices, particularly for natural gas; and the ability to cogenerate heat, steam, or chilled water along with power. Anticipated emission reductions or avoided CO₂ emissions tied to the greater use of combined heat and power technologies may ultimately be stymied by delays in an energy user's willingness to commit to a project based upon near-term economics.

d. Emission Reduction Measures and Policies:

Emissions reduction measures and policies that are not linked to reasonable expectations of technology development or a suite of complementary measures can create delays in compliance or even worse, chronic non-compliance. As California has noted previously, access to transmission is a major barrier in the development of Renewable Portfolio Standard ("RPS") projects to meet the existing 20% by 2010 target. The Commission is collaborating with other agencies and stakeholders on reforms to interconnection procedures in hopes of expediting the development of thousands of megawatts of new renewable capacity. Anticipated emission reductions or

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avoided CO_2 emissions tied to the greater use of RPS projects may ultimately be stymied by delays in transmission investment or if RPS projects fail to be built.

Question 11. Address any interactions among issues that you believe the Commissions should take into account in developing recommendations to ARB.

As part of a broader, economy-wide cap-and-trade program, California should adopt allowance budgets for the electricity sector that focus on stabilizing emissions and achieving modest reductions from current levels by 2020. Currently, there are only three near-term options for reducing emissions from electricity generation: 1) redispatch existing generation; 2) add new generation to cover load growth and generation retirements; and 3) substitute new generation to cut existing generation emissions. California's electricity sector emissions cap and ratchet must reflect the lead times to build new capacity and recognize other constraints on operations, transmission, and new investment.

Question 12. In establishing policies regarding allowance allocation, flexible compliance, CHP, and emission reduction policies, what should California keep in mind regarding the potential transition to regional and/or national cap-and-trade programs in the future? Are there policies or methods that California should avoid or embrace in order to maximize potential compatibility with other cap-and-trade systems?

California should design a system that is likely to sunset or at the very least <u>is</u> compatible with any federal cap-and-trade system that may be established within the next few years. It appears likely that by the time the California cap-and-trade system is operational, it will only need to operate for a short period of time before it is merged or adapted to be compatible with a national system. PacifiCorp supports a single GHG regulatory scheme and would oppose a state or regional program that co-exists or operates in parallel to a federal program. Most cap-and-trade systems operating to date have been source-based systems. To the extent the ARB adopts the first deliverer approach as the point of regulation for the electricity sector, California should separately

allocate allowances based upon emissions physically occurring within California versus allowances based upon emissions physically occurring outside of California (i.e., imported power). Assuming a source-based system, allocating allowances separately will make it easier to eliminate allowances based upon out of state emissions once a regional and/or national program is launched. To the extent California adopts flexible compliance mechanisms, such as tradable carbon offsets, California should embrace national or international geographic project eligibility.

Question 13. For each issue addressed in your comments, do you have any recommendations about the level of detail and specificity regarding the electricity and natural gas sectors that ARB should include in the scoping plan? Is there enough information in the record in this proceeding to support that level of detail and specificity? What additional information and/or analysis may be needed before ARB finalizes its scoping plan? What determinations regarding the electricity and natural gas sectors should ARB defer for further analysis after the scoping plan is issued? Please be as specific as possible about GHG-related policies for the electricity and natural gas sectors that you recommend be resolved this year, and policies that you believe should be deferred for further analysis after the scoping plan is issued.

The ARB should identify the allowance allocation method(s), the flexible compliance mechanisms, and any anticipated emission reduction measures and policies. Since electricity projects and transmission investments are long-lived assets, having clarity on these key carbon compliance issues is crucial. The record in this proceeding has enough information for the Commission and the CEC to make cap-and-trade design recommendations to the ARB.

The ARB should defer for further analysis any final decision on the electricity's annual share of the economy-wide emissions cap until after the scoping plan is issued. The ARB should analyze technology development within the electricity sector and then recommend reduction targets based upon the status of technology and approved mandatory emissions reduction measures and policies.

May 6, 2008 Questions:

Question 1a. Discuss how your proposal would affect the environmental integrity of the cap, California's ability to link with other trading systems, and administrative complexity.

a. Integrity of the cap:

If the allowance budgets allocated to the electricity sector focus on stabilizing emissions and achieving modest reductions from current levels by 2020, then the environmental integrity of the cap can be preserved. Similarly, if California allows the use of verifiable carbon offsets, then the integrity of the cap is preserved.

If a particular compliance cost control mechanism triggers the unlimited selling of allowances at a determined price (i.e., also referred to as a safety valve), the environmental integrity of the cap could be violated unless the additional allowances are borrowed from future emissions budgets.

b. Linking to other trading programs:

To the extent the ARB adopts the first deliverer approach as the point of regulation for the electricity sector, California should separately allocate allowances based upon emissions physically occurring within California versus allowances based upon emissions physically occurring outside of California (i.e., imported power). Assuming a source-based system, allocating allowances separately will make it easier to eliminate allowances based upon out of state emissions (i.e., imported power) once a regional and/or national program is launched.

c. Administrative complexity:

Of the three joint staff preferred allowance allocation approaches, all are by necessity more complicated to administer than a pure emissions-based, a pure outputbased, or auction approach, but this is additional complexity is a reasonable trade off in return for avoiding the creation of windfall profits (i.e., wealth transfers among retail provider customers) and ensuring equity.

Question 1b. Address how your various recommendations interact with one another and with the overall market and describe what kind of market you envision being created.

PacifiCorp expects the market to be similar to the Acid Rain Program, the market-based initiative taken by the United States Environmental Protection Agency ("EPA") in an effort to reduce overall atmospheric levels of sulfur dioxide and nitrogen oxides. The program is an implementation of emissions trading that primarily targets coal-burning power plants, allowing them to buy and sell allowances according to individual needs and costs.

Like under the Acid Rain Program, large emitters must monitor and annually report their emissions, and they are obliged to surrender an amount of emission allowances to the government that is equivalent to their emissions during a compliance year. To neutralize annual irregularities in emission levels that may occur due to extreme weather events (such as harsh winters or very hot summers), emission allowances for any installation subject to the cap-and-trade would be given out for a sequence of several years at once. Large emitters (or the first deliverers within the electricity sector) would receive an allocation of allowances for free from the ARB and allocated based upon the preferred emissions-based approach methodology. Besides receiving this initial allocation on a installation-by installation basis, an operator may purchase allowances from others (installations, traders, and the government.) If an installation has received more free allowances than it needs, it may sell them to anybody. Installations that reduce their emissions below the number of allowances they hold may trade allowances with other installations in their system, sell them to other installations on the open market or through ARB auctions, or bank them to cover emissions in future years. Within the Acid Rain Program, once a year, EPA auctions a certain number of SO_2 allowances at the end of March. Utilities, environmental groups, allowance brokers, and anyone else interested in purchasing allowances can participate. Allowances sold at the auctions will be sold to the highest bidder until no allowances remain. Successful bidders are notified and are listed on the EPA Web site. Auction proceeds would be recycled back to the regulated entities. However, in California's capand-trade program auctions would occur at least twice a year to encourage liquidity and discourage market manipulation. Auction participation would be limited to regulated entities or restrictions placed on the amount of allowances that could be purchased by non-regulated entities.

Unlike the Acid Rain Program, California's cap-and-trade program should establish an annual new source set-aside, with unclaimed allowances allocated to regulated entities at the end of the year. PacifiCorp also supports the use of free bonus allowances to provide incentives for the development of CCS projects. The proposed bonus allowance rate could be 2:1 allowances per ton of CO₂ sequestered prior to 2020, after which the rate would potentially decline depending on the status of CCS commercialization.

Unlike the Acid Rain Program, compliance filings would not be annual, but rather up to a five year (multi-year) averaging compliance period. The cap-and-trade program should also allow a regulated entity the ability to choose in which year to make its compliance filing. Such flexibility allows a regulated entity to better manage different types of compliance risk (i.e., hydro variability, new project construction delays, and etcetera), as well as take steps to discourage the creation of artificial scarcity within the allowance trading market.

Question 2. With respect to flexible compliance mechanisms, what should California keep in mind in designing its system when considering the potential transition to regional and/or national cap-and-trade programs in the future? Are there

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mechanisms that California should avoid or embrace in order to maximize potential compatibility with other cap-and-trade systems?

Proposals seeking to create regional and/or national cap-and-trade programs generally support the following policies, which California should embrace:

- unlimited allowance banking, whereby a regulated entity could "bank" any surplus allowance for use within a future compliance period;
- additional allowances or some form of compliance credits being made available as recognition of early action (i.e., "early action" allowances);
- the use of carbon offsets as a means to mitigate compliance costs, to the extent they have been independently verified;
- various compliance cost control mechanisms that are triggered when allowance market hits an established price (i.e., \$ per allowance) requiring a change to the overall program, such as expansion of certain flexible compliance mechanisms (for example the increased use of carbon offsets), the deferral of interim targets until the market conditions improve, or the borrowing of allowances that are then made available to the market (i.e., the carbon reserve board concept).
- multi-year averaging that allows a regulated entity to better manage different types of annual compliance risk (i.e., hydro variability, new project construction delays, and etcetera).

Question 3. What evaluation criteria should be used in assessing flexible compliance options?

California should first embrace the notion that a regulated entity has the freedom to choose which flexible compliance options best fit their particular circumstances. Most options should not require approval beforehand, allowing the regulated entity to respond quickly to market conditions without needing government approval.

Flexible compliance options should be critiqued based upon whether they violate the integrity of the emissions cap or whether they can be used to manipulate the allowance and/or offset markets, used to establish inappropriate market power or lead to other types of market abuse.

III. <u>ALLOWANCE ALLOCATION</u>

A. Detailed proposal Q1 and Q10 (4/16/08)

Question 1. Please explain in detail your proposal for how GHG emission allowances should be allocated in the electricity sector.

PacifiCorp supports a free allocation of allowances based upon the joint staff's preferred emissions-based market clearing price approach. The transition to a low-carbon economy is a significant undertaking and the costs of doing so are, likewise, significant. An allocation based on historic emissions allows for such a transition while, at the same time, managing the cost impacts on such a transition in electricity rates and avoiding disproportionate impacts on customers based on an existing generation portfolio. It is important to recognize that the decisions to build fossil fueled power plants, which were made over many decades and were intended to achieve a fuel mix, were economically rational and, in virtually all cases, approved as prudent by regulatory authorities. Retail providers and their customers should not be punished for past prudent PacifiCorp also vigorously opposes providing allowances to non-emitters decisions. based on "benchmarking" or megawatt-hour "output-based" methodologies which would simply create large wealth transfers among utilities that is unrelated, and potentially contrary to, the overall goal of GHG emissions reduction. It is unclear what public purpose would be served by distributing allowances to non-emitters. Utilities that built hydroelectric dams many decades ago or nuclear plants in the sixties and seventies did not do so to avoid GHG emissions and there is no reason to provide them with a financial windfall. These zero-emitting resources do not bear the burden or the direct costs of effectuating GHG emissions reductions.

To establish each existing emitter's share of the freely allocated allowances, a GHG baseline would need to be calculated using the most recent emissions data. PacifiCorp supports calculating a GHG baseline using multiple historical years.⁶ A baseline should rely on historical CO₂ emissions data from all existing emitters, using data from a five year period prior to the rule's effective start date. California would drop data from the years with the highest and lowest emissions for each existing emitter. Average emissions for the three remaining years would form the basis for calculating the historic emissions for each existing emitter. The sum of all existing emitters' historic emissions would establish the GHG baseline. Each emitter's ratio to the GHG baseline would define its share of free allowances (i.e., an emitter would multiply its ratio against each year's freely allocated allowance budget). Note, an existing emitter's ratio would not change, regardless of the decline in the overall allowance budget or in the case of a gradual transition to an auction method for distributing allowances. This predictability is extremely valuable to regulated entities for resource planning purposes, but necessitates an allowance set-aside for new entrants.

PacifiCorp supports some nominal amount (< 3 percent) of the overall allowance budget being set aside each year for new market entrants (for projects that will produce GHG emissions) prior to the distribution of the remaining allowances. At the end of each compliance year, the ARB would pro-rate any unused "new entrant" allowances to the various regulated entities. ARB would set the size of the allowance pool through rulemaking.

While the staff's preferred fuel-differentiated, fossil-only output-based allowance allocation approach would potentially eliminate the need for a new entrant set-

⁶ When establishing a GHG baseline, evaluating a larger number of years allows the state to more equitably address year-over-year hydro production variability and accommodate unit-specific concerns, such as reduced emissions as a result of scheduled maintenance or unscheduled outages.

aside and eliminate the potential for windfall profits (i.e., wealth transfers among retail providers), it would also eliminate the highly valued predictability of future free allowance allocations, making it difficult to reliably forecast compliance costs.

PacifiCorp supports unlimited allowance banking, whereby a regulated entity could "bank" any surplus allowance for use within a future compliance period. PacifiCorp also supports additional allowances be allocated as recognition of early action (i.e., "early action" allowances). These allowances would be in addition to those issued in subsequent years as part of the cap. The purpose of this mechanism is to fully reward and encourage all legitimate early actions to reduce GHG emissions.

Question 10. Describe in detail the method you prefer for returning auction revenues to benefit electricity consumers in California. In addition to your recommendation, comment on the pros and cons of each method listed above, especially regarding the benefit to electricity consumers, impact on GHG emissions, and impact on consumption of electricity by consumers.

PacifiCorp has expressed support for some nominal level of auction (≤ 5 percent) at the beginning of a cap-and-trade program to ensure market liquidity and an opportunity for trading. PacifiCorp also supports conducting at least two auctions a year. Auction proceeds should be returned to the retail providers according to staff's preferred auction approach (on a historical emissions basis) to mitigate rate impacts. The amount of allowances to be auctioned each year should be the subject of future ARB rulemakings with a goal of achieving the best combination of cost, fairness, and enforceability. PacifiCorp also supports the joint staff's preferred emissions-based approach to recycling of auction proceeds to retail providers for use toward achieving the overall goal of GHG emissions reductions. PacifiCorp supports a slower rate of transition in the early years from freely allocated allowances to an auction, and similarly would have concerns with a transition from an emissions-based recycling of auction revenues to recycling revenue on an output/sales basis.

PacifiCorp is concerned about the creation of artificial scarcity. Where

allowances are bought and sold, there is a risk of, and, indeed, an incentive for, nongenerators to acquire allowances. Financial speculators could participate, hoping to acquire allowances cheaply and sell them to companies that need them to operate at a higher price. The risk alone could drive up prices. As the cost of acquiring allowances eventually will be passed on to electricity consumers, market manipulation that drives up the cost of allowances, the supply of which will be limited, should be prevented. Restricting market participation is the most direct way to address this risk. Restricting the amount of allowances to be purchased or length of time they may be held by certain types of market participant may be another means of preventing arbitraging.

B. Response to staff paper on allowance allocation options and other allocation recommendations Q8-Q13 (4/16/08)

Question 8. The staff paper describes an option that would allocate emission allowances directly to retail providers. If you believe that such an approach warrants consideration, please describe in detail how such an approach would work, and its potential advantages or disadvantages relative to other options described in the staff paper. Address any legal issues related to such an approach, as described in Questions 2-4 above.

PacifiCorp supports a free allocation of allowances based upon the joint staff's preferred emissions-based market clearing price approach. For verticallyintegrated, fully resourced retail providers, such as PacifiCorp, an allowance allocation directly to retail providers would be nearly, if not identical. Under such an approach, allowances should still be allocated based upon historic emissions otherwise the approach still creates the potential for windfall profits (i.e., wealth transfers among retail providers).

A strong argument for allocating free allowances to retail providers is their extensive public oversight from either the Public Utilities Commission or their local governing boards. Such utilities cannot unilaterally pass GHG-related benefits to their shareholders or use them to invest in other types of commerce. Question 9. Please address the effect that each of the allowance allocation options discussed in the staff paper, or in the articles attached to the staff paper, or in your own or other parties' opening comments, would have on economic efficiency in the economy, and the economic incentives that each option would create for market participants.

PacifiCorp respectfully declines to respond to this question at this time.

Question 10. Describe in detail the method you prefer for returning auction revenues to benefit electricity consumers in California. In addition to your recommendation, comment on the pros and cons of each method listed above, especially regarding the benefit to electricity consumers, impact on GHG emissions, and impact on consumption of electricity by consumers.

PacifiCorp previously addressed this question in Section A, Question 10.

Question 11. If auction revenues are used to augment investments in energy efficiency and renewable power, how much of the auction proceeds should be dedicated to this purpose?

Since energy efficiency and renewables goals are mandatory for California's retail providers, it would be redundant to have retail providers paying for mandated reductions and the total embedded allowance cost of purchasing or generating power. As the minimum, auction revenues should be sufficient to offset the total cost expected for these mandatory programs, and expanded as additional cost-effective measures are identified.

Question 12. If auction revenues are used to maintain affordable rates, should the revenues be used to lower retail providers' overall revenue requirements, returned to electricity consumers directly through a refund, used to provide targeted rate relief to low-income consumers, or used in some other manner? Describe your preferred option in detail. In addition to your recommendation, comment on the pros and cons of each method identified for maintaining reasonable rates.

Electricity is a vital commodity, with California's average retail rates already 40% higher than the national average. Electricity costs are also regressive because lower-income consumers spend a higher proportion of their income for electricity compared to higher-income consumers. Auction revenues should first be used to provide relief to low-income consumers and then used to lower retail providers' overall revenue requirements.

Question 13. If you prefer a combination of methods for returning auction revenues, describe your preferred combination in detail.

PacifiCorp does not support a combination of methods for returning auction revenues and believes the historic emissions-based auction approach will ensure equity among customers of retail providers. The consumer cost and redistributive impacts of a sales/output auction approach will create a wealth transfer from customers of high-GHG retail providers to customers of low-GHG retail providers. Retail providers and their customers should not be punished for past prudent decisions. It is unclear what public purpose would be served by distributing allowances to non-emitters. Utilities that built hydroelectric dams many decades ago or nuclear plants in the sixties and seventies did not do so to avoid GHG emissions and there is no reason to provide them with a financial windfall. These zero-emitting resources do not bear the burden or the direct costs of effectuating GHG emissions reductions.

C. Legal issues Q2-Q7 (4/16/08)

Question 2. Does any of the allowance allocation options discussed in the staff paper, or in the articles attached to the staff paper, or in opening comments, raise concerns under the Dormant Commerce Clause? If so, please explain why that allocation option(s) may violate the Commerce Clause, including citations to specific relevant legal authorities. Also, explain if and, if so, how the allocation option(s) could be modified to avoid the Commerce Clause problem.

PacifiCorp respectfully declines to respond to this question at this time.

Question 3. Does any of the allowance allocation options discussed in the staff paper, or in the articles attached to the staff paper, or in opening comments, raise legal concerns about whether they involve the levying of a tax and, therefore, would require approval by a two-thirds vote of the Legislature? If so, please explain why that allocation option(s) is taxation, including citations to specific relevant legal authorities. Also, explain if and, if so, how, the allocation option(s) could be modified to avoid such legal concerns.

PacifiCorp respectfully declines to respond to this question at this time.

Question 4. Does any of the allowance allocation options discussed in the staff paper, or in the articles attached to the staff paper, or in your opening comments, raise any other legal concerns? If so, please explain in full with citations to specific relevant legal authorities. Also, explain if and, if so, how, the allocation option(s) could be modified to avoid such legal concerns.

PacifiCorp respectfully declines to respond to this question at this time.

Question 5. For reply comments: Do any of the allowance allocation options discussed in other parties' opening comments raise concerns under the Dormant Commerce Clause? If so, please explain why that option(s) may violate the Commerce Clause, including citations to specific relevant legal authorities. Also, explain if and, if so, how the allocation option(s) could be modified to avoid the Commerce Clause problem.

PacifiCorp respectfully declines to respond to this question at this time.

Question 6. For reply comments: Do any of the options discussed in other parties' opening comments raise legal concerns about whether they involve the levying of a tax and, therefore, would require approval by a two-thirds vote of the Legislature? If so, please explain why that allocation option(s) is taxation, including citations to specific relevant legal authorities. Also, explain if and, if so, how, the allocation option(s) could be modified to avoid such legal concerns.

PacifiCorp respectfully declines to respond to this question at this time.

Question 7. For reply comments: Do any of the allowance allocation options discussed in other parties' opening comments raise any other legal concerns? If so, please explain in full with citations to specific relevant legal authorities. Also, explain if and, if so, how the allocation option could be modified to avoid such legal concerns.

PacifiCorp respectfully declines to respond to this question at this time.

IV. <u>FLEXIBLE COMPLIANCE</u>

A. Detailed proposal Q1 (5/6/08)

Question 1. Please explain in detail your comprehensive proposal for flexible compliance rules for a cap-and-trade program for California as it pertains to the electricity sector. Address each of the cost containment mechanisms you find relevant including those mentioned in this ruling and any others you would propose.

PacifiCorp also supports flexible compliance cost control mechanisms. For example, if the allowance market hits an established price (i.e., \$ per allowance) it triggers a change to the overall program, such as the selling of additional allowances; expansion of the availability of certain flexible compliance mechanisms, such as the increased use of carbon offsets; deferring of interim targets until the market conditions improve, and etcetera. The purpose is to protect customers and the California economy from the risk of economic harm during the initial stage of the market mechanism by setting a reasonable limit on the price of allowances. The amount and its duration are key design criterion which should be informed by subsequent ARB modeling of the economy-wide cap-and-trade program.

B. Scope of market and related issues Q1(a)-Q1(d), Q4, Q5 (5/6/08)

Question 1(a). Discuss how your proposal would affect the environmental integrity of the cap, California's ability to link with other trading systems, and administrative complexity.

a. Integrity of the cap:

Three flexible compliance mechanisms would temporarily affect the environmental integrity of the cap. First, if a pre-determined allowance price triggers the availability of additional allowances (i.e., a safety-valve), the availability of additional allowances would presumably allow regulated entities to collectively emit more than the emissions cap, however this outcome is difficult to predict because some parties will choose to bank allowances. Similarly, if allowances are borrowed from a future allocation, the affect would be a near-term exceedance of the emissions cap during that particular compliance period, but which need to be made up in a future compliance period. If a pre-determined allowance price triggers a deferral of interim targets until market conditions improve, the environmental integrity of the cap could be exceeded during that particular compliance period, but the trigger itself is an indicator that the capand-trade market is not necessarily operating as policymakers had originally planned and that corrective action may be necessary. If regulatory agencies subsequently determine that the increased allowance price is warranted and that the higher allowance price represents normal market conditions, then the interim caps would be reinstituted.

b. Linking to other trading programs:

The ARB will need to judge whether another trading program includes as stringent flexible compliance measures or whether changes to California's program are necessary to support equitable trading between the two systems. California cannot know this beforehand, and thus should launch their cap-and-trade program with as many flexible compliance mechanisms as possible and through subsequent rulemakings, consider making adjustments to the program in order to formally link up with other trading systems. It is equally possible that other trading systems would be willing to adjust their program in order to formally link up with California's trading program.

c. Administrative complexity:

The use of flexible compliance mechanisms are all, by necessity more complicated to administer than a cap-and-trade program without them, but this is additional complexity is a reasonable trade off in return for avoiding the creation of unnecessary economic harm and ensuring equity. Certain mechanisms may only be necessary during the early years of a cap-and-trade program, with a phase-out occurring once the trading market has matured or technology advancement has made them unnecessary.

Question 1(b). Address how your various recommendations interact with one another and with the overall market and describe what kind of market you envision being created.

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The final clearing allowance price set during one of the auctions would trigger a flexible compliance mechanism. Once the mechanism is implemented, the body exercising regulatory oversight would convene to determine whether any changes to the cap-and-trade system were necessary. If system changes are necessary, those changes would become effective within thirty-six months or the subsequent compliance period, which ever is later. In the interim, the flexible compliance mechanism would continue to be in effect.

Question 1(c). Describe and specify how unique circumstances in the electricity market may warrant any special consideration in crafting flexible compliance policies for a multi-sector cap-and-trade program.

Electricity is a vital commodity, with California's average retail rates already 40% higher than the national average. Electricity costs are also regressive because lower-income consumers spend a higher proportion of their income for electricity compared to higher-income consumers.

Electricity is also unique in that it may be used as a substitute fuel by other regulated sectors to reduce their own GHG emissions reduction obligations. Fuel switching from direct fossil fuel combustion in manufacturing and production processes, or fuel switching as a result of technology advancement (i.e., transportation sector's embracing of plug-in hybrid electric vehicle technology), are very likely to be environmentally beneficial and cost-effective, but the outcome would be to increase the electricity sector's overall compliance burden. The cap-and-trade program should not discourage beneficial fuel switching, but must offer the electricity sector the tools (i.e., flexible compliance) it will need to effectively manage it.

Question 1(d). If your recommendations are based on assumptions about the type and scope of a cap-and-trade market that ARB will adopt, provide a description of the anticipated market including sectors included, expected or required emission reductions from the electricity sector, and the role that flexible compliance

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mechanisms serve in the market, e.g., purely cost containment, catalyst for longterm investment, and/or protection against market failures.

PacifiCorp respectfully declines to respond to this question at this time.

Question 4. To what extent should the recommendations to the ARB for flexible compliance in the electricity sector depend on the ultimate scope of the multi-sector cap-and-trade program and other market design issues such as allocation methodology and sector emission reduction obligations? Can the Commissions make meaningful recommendations on flexibility of market operations when the market itself has not yet been designed? Why or why not?

The ARB will need to judge whether additional measures are necessary to support equitable trading between sectors (or in linking with other trading systems). California will need to weigh considerations against other, equally important considerations (i.e., risk of economic harm and job loss, environmental justice, and etcetera). Since the Commission and the CEC do not know the ultimate scope of the multi-sector cap-and-trade program (including linking to other trading systems), as many flexible compliance mechanisms should be included within the ARB recommendations as possible and made available to regulated entities. Any adjustments should be made through subsequent rulemakings, as necessary. It is equally possible that California (or other trading systems) will choose to adjust the regulatory program for other, non-electricity sectors to equitably link up all of the regulated sectors (or link to other trading systems) within a multi-sector cap-and-trade program.

Question 5. Should the market for GHG emission allowances and/or offsets be limited to entities with compliance obligations, or should other entities such as financial institutions, hedge funds, or private citizens be allowed to participate in the buying and selling of allowances and/or offsets? If non-obligated entities are allowed to participate in the market, should the trading rules differ for them? If so, how?

PacifiCorp is concerned about the creation of artificial scarcity. Where allowances are bought and sold, there is a risk of, and, indeed, an incentive for, nongenerators to acquire allowances. Financial speculators could participate, hoping to acquire allowances cheaply and sell them to companies that need them to operate at a higher price. The risk alone could drive up prices. As the cost of acquiring allowances eventually will be passed on to electricity consumers, market manipulation that drives up the cost of allowances, the supply of which will be limited, should be prevented. Restricting market participation is the most direct way to address this risk. Restricting the amount of allowances to be purchased or length of time they may be held by certain types of market participant may be another means of preventing arbitraging.

C. Price triggers and other safety valves Q6-Q7 (5/6/08)

Question 6. Should California incorporate price triggers or other safety valves in a cap-and-trade system? Why or why not? Would price triggers or other safety valves affect environmental integrity and/or the ability to link with other systems? Address options including State market intervention to sell or purchase GHG emission allowances to drive allowance prices down or up; a circuit breaker or accelerator which either slows down or speeds up reductions in the emission cap until allowance prices respond; and increasing or decreasing offset limits to increase or decrease liquidity to affect prices. Address how these various strategies would be utilized in conjunction with other flexible compliance mechanisms.

PacifiCorp supports price triggers or other safety valves in a cap-and-trade system. Price triggers or safety valves will assist regulated entities to better forecast anticipated compliance costs. Electricity is also a vital commodity, with California's average retail rates already 40% higher than the national average. Electricity costs are also regressive because lower-income consumers spend a higher proportion of their income for electricity compared to higher-income consumers. Electricity is also unique in that it may be used as a substitute fuel by other regulated sectors to reduce their own GHG emissions reduction obligations. Fuel switching from direct fossil fuel combustion in manufacturing and production processes, or fuel switching as a result of technology advancement (i.e., transportation sector's embracing of plug-in hybrid electric vehicle technology), are very likely to be environmentally beneficial and cost-effective, but the outcome would be to increase the electricity sector's overall compliance burden. The cap-

and-trade program should not discourage beneficial fuel switching, but must offer the electricity sector the tools (i.e., flexible compliance) it will need to effectively manage it.

If a pre-determined allowance price triggers the availability of additional allowances (i.e., a safety-valve), the availability of additional allowances would presumably allow regulated entities to collectively emit more than the emissions cap, however this outcome is difficult to predict because some parties will choose to bank allowances. Similarly, if allowances are borrowed from a future allocation, the affect would be a near-term exceedance of the emissions cap during that particular compliance period, but which need to be made up in a future compliance period.

Certain mechanisms may only be necessary during the early years of a cap-and-trade program, with a phase-out occurring once the trading market has matured or technology advancement has made them unnecessary.

Unlimited carbon offsets should be allowed to the extent they can be verified. Additional carbon offsets do not violate the environmental integrity of the cap. The electricity sector should have the flexibility to pursue the lowest cost carbon reductions, even if they occur outside of the electricity sector.

Question 7. Should California create an independent oversight board for the GHG market? If so, what should its role be? Should it intervene in the market to manage the price of carbon? If such an oversight board were created, how would that affect your recommendations, e.g., would the oversight board obviate the need to include additional cost containment mechanisms and price-triggered safety valves in the market design?

PacifiCorp respectfully declines to respond to this question at this time.

D. Linkage Q8-Q11 (5/6/08)

Question 8. Should California accept all tradable units, i.e., GHG emission allowances and offsets, from other carbon trading programs? Such tradable units could include, e.g., Certified Emission Reductions, Clean Development Mechanism (CDM) credits, and/or Joint Implementation credits.

California should accept all tradable units to the extent they can be

verified.

Question 9. If so, what effects could such linkage have on allowance prices and other compliance costs of California obligated entities? Under what conditions could linkage increase or decrease compliance costs of California obligated entities? To what extent would linkage subject the California system to market rules of the other systems? What analysis is needed to ensure that other systems have adequate stringency, monitoring, compliance, and enforcement provisions to warrant linkage? What types of verification or registration should be required?

PacifiCorp respectfully declines to respond to this question at this time.

Question 10. If linkage is allowed, should it be unilateral (where California accepts allowances and other credits from other carbon trading programs, but does not allow its own allowances and offsets to be used by other carbon trading programs) or bilateral (where California accepts allowances and other credits from other carbon trading programs and allows its allowances and offsets to be used by other carbon trading programs)?

PacifiCorp respectfully declines to respond to this question at this time.

Question 11. If linkage is allowed, should allowances and other credits from other carbon trading programs be treated as offsets, such that any limitations applied to offsets would apply to such credits? If not, how should they be treated?

Allowances, offsets, and other credits from other carbon trading programs

should be treated as offsets. Unlimited carbon offsets should be allowed to the extent they can be verified. Additional carbon offsets do not violate the environmental integrity of the cap. The electricity sector should have the flexibility to pursue the lowest cost carbon reductions, even if they occur outside of the electricity sector.

E. Compliance periods Q12-Q13 (5/6/08)

Question 12. What length of compliance periods should be used? Should compliance periods remain the same throughout the 2012 to 2020 period? Should compliance periods be the same for all entities and sectors? Should dates be staggered so that not all obligated entities have the same compliance dates?

The cap-and-trade program should allow for up to five year (multi-year) averaging, as well as grant a regulated entity the ability to choose in which year to make its compliance filing. Such flexibility allows a regulated entity to better manage different types of compliance risk (i.e., hydro variability, new project construction delays, and etcetera), as well as take steps to discourage the creation of artificial scarcity within the allowance trading market.

Question 13. Should compliance extensions be granted? If so, under what circumstances?

PacifiCorp respectfully declines to respond to this question at this time.

F. Banking and borrowing Q14-Q16 (5/6/08)

Question 14. Should entities with California compliance obligations be allowed to bank any or all tradable units, including allowances, offsets, or credits from other carbon trading programs? Should entities that do not have compliance obligations be able to bank tradable units? If so, for how long and with what other conditions? Should allowances, offsets, or credits from other carbon trading programs banked during the program between 2012 and 2020 be recognized after 2020? If the California system joins a regional, national, or international carbon trading program, how should unused banked allowances, offsets, or credits from other carbon trading programs be treated?

PacifiCorp supports unlimited banking of tradable units (i.e., allowances and offsets), whereby a regulated entity could "bank" any surplus tradable units for use within a future compliance period. Allowances, offsets and other credits from other carbon trading programs should be treated as offsets.

Question 15. Should limitations be placed on banking aimed at preventing or limiting market participants' ability to "hoard" allowances and offsets or distort market prices?

PacifiCorp is concerned about the creation of artificial scarcity. Where allowances are bought and sold, there is a risk of, and, indeed, an incentive for, nongenerators to acquire allowances. Financial speculators could participate, hoping to acquire allowances cheaply and sell them to companies that need them to operate at a higher price. The risk alone could drive up prices. As the cost of acquiring allowances eventually will be passed on to electricity consumers, market manipulation that drives up the cost of allowances, the supply of which will be limited, should be prevented. Restricting market participation is the most direct way to address this risk. Restricting the amount of allowances to be purchased or length of time they may be held by certain types of market participant may be another means of preventing arbitraging.

Question 16. Should entities with compliance obligations be allowed to borrow allowances to meet a portion of their obligation? If so, during what compliance periods and for what portion of their obligation? How long should they be given to repay borrowed allowances? Should there be penalties or interest payments? Should there be other conditions on borrowing, such as limitations on the ability to borrow from affiliated entities? Also address the extent to which borrowing might affect environmental integrity and emission reductions.

PacifiCorp respectfully declines to respond to this question at this time.

G. Penalties and alternative compliance payments Q17-Q20 (5/6/08)

Question 17. Should there be penalties for entities that fail to meet their compliance obligations? If so, how should the penalties be set? If not, what should be the recourse for non-compliance?

PacifiCorp does not support the use of penalties if a regulated entity has made a good faith effort to achieve its complaince obligations.

If a regulated entity's behavior is willful or negligent, the owners or operators with emissions exceeding the number of allowances held should pay an established penalty (adjusted for inflation) per excess ton of CO_2 emissions. Note, PacifiCorp does not take a position on where the penalty level should be established. In addition, violating owners and operators must offset the excess CO_2 emissions with allowances in an amount equivalent to the excess. An owner or operator may either have allowances deducted immediately or submit an excess emissions offset plan to ARB that outlines how these cutbacks will be achieved. Question 18. Instead of penalties, should there be alternative compliance payments? What would be the distinguishing attributes of alternative compliance payments versus penalties? How would the availability of alternative compliance payments affect the environmental integrity of the cap?

PacifiCorp supports the use of alternative compliance payments in lieu of penalties. The existence of alternative compliance payments transfers negotiating power from the seller of a tradable unit to the buyer of a tradable unit. ARB may also be in a better position to pursue certain, lower-cost GHG emissions mitigation or facilitate market transformation than individual regulated entities. The availability of alternative compliance payments does not necessarily affect the environmental integrity of the cap because it would depend on how successful the ARB is in achieving the necessary emissions reductions. Alternative compliance payments may also reduce potential compliance costs and customer rate impacts.

Question 19. Would penalties and/or alternative compliance payments allow obligated entities to opt out of the market? Would this add too much uncertainty for other market participants?

Penalties and/or alternative compliance payments would not allow obligated retail providers to opt out of the market given their extensive public oversight from either the Commission or their local governing boards. Such utilities cannot unilaterally opt-out of the market. Again, the ARB may also be in a better position to pursue certain, lower-cost GHG emissions mitigation or facilitate market transformation than individual regulated entities.

Question 20. How should California use the money that would be generated by penalties and/or alternative compliance payments?

Alternative compliance payments should be treated akin to auction revenues and recycled into the appropriate retail provider for use in mitigating rate impacts and GHG emissions reductions. Such an approach reduces administrative complexity. PacifiCorp also supports the use of some portion of alternative compliance payments for broad market transformation activities targeting multiple retail provider service territories.

H. Offsets Q21-Q26 (5/6/08)

Question 21. Should California allow offsets for AB 32 compliance purposes?

Unlimited carbon offsets should be allowed to the extent they can be verified. The electricity sector should have the flexibility to pursue the lowest cost carbon reductions, even if they occur outside of the electricity sector. These carbon offsets should be bankable and would be surrendered for compliance purposes in addition to any allowances. Including a carbon offsets program will spur technology development and innovation in sectors, sources, and locations not included within the cap-and-trade system. This is particularly true for certain sectors such as Agriculture and Forest Management which may have significant potential for creating offsets from projects that *sequester* CO_2 emissions.

PacifiCorp supports broad offset project eligibility criteria and international projects should be eligible provided they satisfy minimum verification standards set by the ARB, or preferably set by a national or international organization. Reducing GHG emissions, reliably, in some other part of the United States or the world will have just as significant a benefit as making an equivalent GHG emissions reduction within California. Over time (or if linked to a compliance cost containment mechanism) the ARB may limit certain offset credit use. The need for offset credits may also be larger early in the program, when capped sources have not yet had much time to implement new technologies or have found it prohibitively costly to prematurely replace their current equipment. Conversely, the demand for offset credits could be greater in later years, as reduction requirements become larger. As more of the world implements GHG emission
reduction programs over time, such action would also limit the amount of uncapped sources that would be eligible to generate offset credits.

Question 22. If offsets are permitted, what types of offsets should be allowed? Should California establish geographic limits or preferences on the location of offsets? If so, what should be the nature of those limits or preferences?

To the extent the offsets can be verified, quantity, project type, or

geographic-eligibility limits, should not be applied.

Question 23. Should voluntary GHG emission reduction projects, i.e., projects that are not developed to comply with governmental mandates, be permitted as offsets if they are within sectors in California that are not within the cap-and-trade program? In particular, should voluntary GHG emission reduction projects within the natural gas sector in California be permitted as offsets, if the natural gas sector is not yet in the cap-and-trade program?

To the extent the offsets can be verified, quantity, project type, or geographic-eligibility limits, should not be applied.

Question 24. Should there be limits to the quantity of offsets? If so, how should the limits be determined?

Unlimited carbon offsets should be allowed to the extent they can be verified. Over time (or if linked to a compliance cost containment mechanism) the ARB may limit certain offset credit use. The need for offset credits may also be larger early in the program, when capped sources have not yet had much time to implement new technologies or have found it prohibitively costly to prematurely replace their current equipment. Conversely, the demand for offset credits could be greater in later years, as reduction requirements become larger. As more of the world implements GHG emission reduction programs over time, such action would also limit the amount of uncapped sources that would be eligible to generate offset credits.

Question 25. How should an offsets program be administered? What should be the project approval and quantification process? What protocols should be used to

determine eligibility of proposed offsets? Are existing protocols that have been developed elsewhere acceptable for use in California, or is additional protocol development needed? Should offsets that have been certified by other trading programs be accepted? Should use of CDM or Joint Implementation credits be allowed?

PacifiCorp supports broad offset project eligibility criteria and international projects should be eligible provided they satisfy minimum verification standards set by the ARB, or preferably set by a national or international organization. Allowances, offsets and other credits from other carbon trading programs should be treated as offsets.

Question 26. Should California discount credits (i.e. make the credits worth less than a ton of CO2e) from some offset projects or other trading programs to account for uncertainty in emission reductions achieved? If so, what types of credits would be discounted? How would the appropriate discount be quantified and accounted for?

These questions are best answered during a discovery process initiated by

a formal rulemaking process. ARB should develop project-specific eligibility criteria by rule (including whether it will adopt a project-specific standards set by a national or international organization). At that time parties will be free to make their arguments in favor of or in opposition to discounting.

I. Legal issues Q27-Q31 (5/6/08)

Question 27. Under AB 32, is it permissible for GHG emission allowances from non-California carbon trading programs or offsets from GHG emission sources outside of California to be used instead of GHG emission allowances issued in California? Please consider especially the provisions of Health and Safety Code Sections 3805, 38550, and 38562(a) added by AB 32.

PacifiCorp respectfully declines to respond to this question at this time.

Question 28. Do any of the flexible compliance options identified in these questions or discussed in the attachments to this ruling or in your opening comments raise concerns under the dormant Commerce Clause? If so, please explain why that flexible compliance option(s) may violate the Commerce Clause, including citations to specific relevant legal authorities. Also, explain if and, if so, how the flexible compliance option(s) could be modified to avoid the Commerce Clause problem. Address, in particular, whether a policy that limits offsets to only emission reduction projects located in California would raise dormant Commerce Clause concerns.

PacifiCorp respectfully declines to respond to this question at this time.

Question 29. Do any of the linkage options identified in these questions or discussed in the attachments to this ruling or in your opening comments raise concerns under either the Compact Clause or the Treaty Clause of the United States Constitution? If so, please explain why that linkage option(s) may violate one or both of these Clauses, including citations to specific relevant legal authorities. Also, explain if and, if so, how the linkage option(s) could be modified to avoid the Compact Clause and/or Treaty Clause problem.

PacifiCorp respectfully declines to respond to this question at this time.

Question 30. Do any of the flexible compliance options identified in these questions or discussed in the attachments to this ruling or in your opening comments, raise any other legal concerns? If so, please explain the legal concern(s), including citations to specific relevant legal authorities. Also, explain if and, if so, how the flexible compliance option(s) could be modified to avoid the legal concern(s).

PacifiCorp respectfully declines to respond to this question at this time.

Question 31. For reply comments: do any of the flexible compliance options identified by other parties in their comments raise legal concerns? If so, please explain the legal concern(s), including citations to specific relevant legal authorities. Also, explain if and, if so, how the flexible compliance option(s) could be modified to avoid the legal concern(s).

PacifiCorp respectfully declines to respond to this question at this time.

V. TREATMENT OF CHP

PacifiCorp respectfully declines to respond to this question at this time.

VI. <u>NON-MARKET-BASED EMISSION REDUCTION MEASURES (OTHER</u> <u>THAN CHP) AND EMISSIONS CAPS</u>

A. Electricity emission reduction measures Q1-Q2, Q5 (5/13/08)

Question 1. What direct programmatic or regulatory emission reduction measures, in addition to current mandates in the areas of energy efficiency and renewables, should be included for the electricity and natural gas sectors in ARB's Assembly Bill (AB) 32 scoping plan?

a. Grid Applications Addressing Electrical Losses:

California should consider a non-market based emission reduction measure to provide incentives to utilities to pursue grid applications that lower electrical losses or reduce GHG emissions through infrastructure changes to the electrical grid (e.g., wires, substation). Examples cited previously within these proceedings include the replacement of existing distribution get-a-ways having aluminum cable with copper cable. Such a change may significantly reduce electrical losses and thereby reduce GHG emissions at a cost that is competitive when compared to the cost of alternatives. Another example cited within the proceedings is the replacement of existing lowervoltage facilities, such as transmission lines, with higher operating voltage facilities. A project that increases transmission line voltages from 500 kV to 765 kV could aid the State's GHG reduction efforts by reducing electrical losses.

To provide incentives for grid application projects, California should recognize the avoided emissions benefits as tradable carbon "offsets" within a cap-andtrade program. Financial stakeholders in grid application projects would presumably have an equity ownership interest in the "offsets" created by the grid application project.

b. Grid Applications Enabling Intermittent Renewables:

California should consider a non-market based emission reduction measure to provide incentives to utilities to pursue electricity storage as an enabling technology for cost-effectively realizing significant amounts of utility-scale renewables. Electricity storage addresses the need to integrate intermittency and works to shift excess off-peak power production to peak periods of demand. For example, wind power is often generated at night. The greatest demand for electricity in California occurs during late afternoon peaks, when wind generation may be at lower levels. When electricity storage is used to provide the necessary services to integrate wind or solar power into the grid when needed, it displaces fossil fuel generation that would otherwise be needed to provide ancillary services (e.g., regulation up and down, ramping, spinning reserve) as well as meet capacity needs. Electricity storage can also provide those services more efficiently and without the CO₂ emissions associated with fossil fuel generation. Thus, large-scale successful electricity storage technologies can help to transform intermittent renewables generation, wind, solar and ocean, into reliable resources for electricity planning, enabling California to take full advantage of these renewable resources abundant off the coast of California and throughout the West. A possible non-market based emission reduction measure could direct utilities to integrate demonstration and deployment of electricity storage technologies - including megawatt installation targets.

c. Grid Applications Enabling Distributed Renewables:

California should consider a non-market based emission reduction measure to provide incentives to utilities to pursue Smart Grid technology as a critical enabling technology to integrate ever growing amounts of distributed renewable generation. The ability of Smart Grid technology to dynamically manage all sources of power on the grid means that more distributed renewable generation, such as solar photovoltaic or small-scale wind, can be successfully integrated with the grid. Today's utility grid can accommodate the occasional residential renewables project, but as

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additional houses within the neighborhood are retrofitted with systems, the local utility's distribution system may become overwhelmed if all of the residential systems were to operate simultaneously. The local utility's ability to manage the output from these multiple distributed generation projects will be critical to maintaining the integrity and reliability of the electricity grid and demonstrating the value of distributed generation in avoiding new central power station construction and related transmission investments.

d. Grid Applications Enabling Demand Response:

California should consider a non-market based emission reduction measure to provide incentives to utilities to pursue Smart Grid technology as a critical enabling technology to enable demand response and energy efficiency. With the rollout of advanced metering, smart chargers, time-of-use rates, and real-time pricing customers will be able to see the economic incentives for reducing power consumption. A Smart Grid also means more intelligent appliances. The grid-friendly, power management appliances program from Pacific Northwest National Laboratory gives appliances the ability to sense grid stress and reduce their power use to prevent grid emergencies. Appliance manufacturers will be able to market grid-friendly appliances for a premium to consumers.

e. Trading in Energy Efficiency:

California should consider a non-market based emission reduction measure to provide incentives to utilities to trade in energy efficiency, using so-called "negawatts". Negawatt power is a term coined for an arbitrage way of supplying additional electrical energy to consumers without increased generation capacity by the creation of a market for trading of increased efficiency. While it is related to and uses consumption efficiencies, it differs in scale and market behavior from individual company or consumer efficiencies. For example an industrial consumer can advertise for

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tenders to supply it with say 100 megawatt hours. A tenderer may find energy efficiencies within an unrelated business and contract to improve their heating or lighting for instance and then sell the savings through the utility to the industrial consumer so it becomes an arbitrage transaction rather than an in house process or requiring increased generation capacity from the electric power utility. Energy consumers may also reduce energy consumption for a few hours to "generate" negawatts - hypothetical tradeable units of saved energy. By turning off air conditioners electricity can be saved over a short period of time, the savings further monetized when represented as negawatts and sold in certain specialized markets. Each utility has a unique set of end-use energy efficiency potential. In addition to the Commission's recent adoption of a "risk-reward" mechanism for investor-owned utilities, negawatt certificate trading would use the market to discover and monetize additional opportunities for energy efficiency.

Question 2. Are there additional regulations that ARB should promulgate in the context of implementing AB 32, that would assist or augment existing programs and policies for emission reduction measures in the electricity and natural gas sectors?

PacifiCorp respectfully declines to respond to this question at this time.

Question 5. What percentage of emission reductions in the electricity sector should come from programmatic or regulatory measures, and what percentage should be derived from market-based measures or mechanisms? What criteria should be used to determine the portion from each approach? By what approach and in what timeframe should this question be resolved?

PacifiCorp supports having the majority of emissions reductions in the electricity sector coming from programmatic or regulatory measures. Technological feasibility (including commercial status and availability) should be the principle criteria to judge each approach, closely followed by cost-effectiveness in achieving GHG emissions reductions or avoiding GHG emissions.

B. Natural gas emission reduction measures Q1-Q2 (5/13/08)

Question 1. What direct programmatic or regulatory emission reduction measures, in addition to current mandates in the areas of energy efficiency and renewables, should be included for the electricity and natural gas sectors in ARB's Assembly Bill (AB) 32 scoping plan?

PacifiCorp respectfully declines to respond to this question at this time.

Question 2. Are there additional regulations that ARB should promulgate in the context of implementing AB 32, that would assist or augment existing programs and policies for emission reduction measures in the electricity and natural gas sectors?

PacifiCorp respectfully declines to respond to this question at this time.

C. Annual emission caps for the electricity and natural gas sectors Q4 (5/13/08)

Question 4. The scope of this proceeding includes making recommendations to ARB regarding annual GHG emissions caps for the electricity and natural gas sectors. What should those recommendations be? What factors (e.g., potential effectiveness of identified emission reduction measures, rate impacts for electricity and natural gas customers, abatement cost in other sectors, anticipated carbon prices) should the Commissions consider in making GHG emissions cap recommendations? If sufficient information is not currently available to recommend cap levels, what caprelated recommendations should the Commissions make to ARB for inclusion in its scoping plan?

As part of a broader, multi-sector cap-and-trade program, California should adopt allowance budgets for the electricity sector that focus on stabilizing emissions and achieving modest reductions from current levels by 2020. Currently, there are only three near-term options for reducing emissions from electricity generation: 1) redispatch existing generation; 2) add new generation to cover load growth and generation retirements; and 3) substitute new generation to cut existing generation emissions. California's electricity sector emissions cap and ratchet must reflect the lead times to build new capacity and recognize other constraints on operations, transmission, and new investment.

D. Legal issues Q6, Q7 (5/13/08)

Question 6. Do any of the non-market-based emission reduction measures discussed in your opening comments raise any legal or regulatory concern(s) or barrier(s)? If so, please explain the legal or regulatory concern(s) or barrier(s), including citations to specific relevant legal authorities. Would additional legislation be necessary to overcome any identified legal barrier(s)? Also, explain if and, if so, how the emission reduction measure(s) could be modified to avoid the legal or regulatory concern(s) or barrier(s).

PacifiCorp respectfully declines to respond to this question at this time.

Question 7. For reply comments: do any of the emission reduction measures identified by other parties in their comments raise legal concerns? If so, please explain the legal concern(s), including citations to specific relevant legal authorities. Also, explain if and, if so, how the emission reduction measure(s) could be modified to avoid the legal concern(s).

PacifiCorp respectfully declines to respond to this question at this time.

VII. MODELING ISSUES

A. Methodology Q8 (5/13/08)

Question 8. Address the performance and usefulness of the E3 model. Is it sufficiently reliable to be useful as the Commissions develop recommendations to ARB? How could it be improved?

The E3 model is sufficiently reliable to illustrate the broad affects of different cap-and-trade design criteria on the California electricity sector. The Commission and the CEC should develop recommendations on allowance allocation method(s), flexible compliance mechanisms, and any anticipated emission reduction measures and policies.

Unfortunately for PacifiCorp, the model does not provide sufficient detail to model the potential rate impacts of a California cap-and-trade system on its customers (i.e., PacifiCorp is included within the "Northern California – Other" retail provider results).

The model does not forecast the affect of the multi-sector cap-and-trade system on the California electricity sector. Similarly, the model does not model any affect a California cap-and-trade system will have on the broader Western Electricity Coordinating Council ("WECC") electricity market and how those affects are then reflected in power (and associated emissions) subsequently imported into California. Finally, the model does not determine the CO_2 market price, making it impossible to properly value the benefits of flexible compliance mechanisms, including the consequences of placing limits on offsets.

B. Inputs Q9 (5/13/08)

Question 9. Address the validity of the input assumptions in E3's reference case and the other cases for which E3 has presented model results. If you disagree with the input assumptions used by E3, provide your recommended input assumptions.

On April 29, 2008, PacifiCorp provided E3 with edits to the E3 Generator Assignment Excel workbook. Unlike other California investor-owned utilities, PacifiCorp still owns and operates the majority of its electricity generating resources. PacifiCorp owns more than 10,400 megawatts of generation capacity from coal, hydro, wind power, natural gas-fired combustion turbines, solar and geothermal. Not all of the resources were listed within the workbook, but PacifiCorp understood that to be a result of E3 using lists from the SSG-WII and TEPPC databases. PacifiCorp noted within its April 29, 2008 transmittal that more of its existing hydro units were included within the 2020 (TEPPC) list, compared to the 2008 (SSG-WII) list. Such a disparity suggests that the generator inventories remain incomplete. PacifiCorp does not have a sense of whether these types of omissions result in serious flaws to the E3 reference case or other cases.

C. Results reported by E3

The results reported by E3 affirm PacifiCorp's concern that allowance allocation approaches linked to output or sales would create large wealth transfers among utilities that is unrelated, and potentially contrary to, the overall goal of GHG emissions reduction. The modeling shows that allocations linked to historic emissions will prevent inequitable wealth transfers, even when used as the basis for recycling auction revenues.

The E3 modeling results appear to support similar modeling performed by the Electric Power Research Institute that examined the affects of different CO_2 prices on the WECC power market⁷, including natural gas being dispatched ahead of coal once CO_2 is priced closer to \$60/tonne (i.e., impacting coal power imports into California) and all in costs for low-carbon renewable and nuclear resources remain more expensive than fossil fuel resources (assuming today's existing technology and natural gas prices), and remains so at least until CO_2 reaches \$100/tonne.

D. Additional modeling and scenarios to support parties' comments

PacifiCorp respectfully declines to respond to this question at this time.

VIII. CONCLUSION

PacifiCorp appreciates the opportunity to provide opening comments on the regulation to be used to reduce GHG emissions in the electricity sector. PacifiCorp strongly supports the Commission and the CEC developing recommendations to the ARB on allowance allocation method(s), flexible compliance mechanisms, and any anticipated emission reduction measures and policies.

Dated: June 2, 2008

Respectfully submitted,

542. Car.

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⁷ The results of the EPRI analysis will be made publicly available on June 5, 2008.

CERTIFICATE OF SERVICE

I hereby certify that on this 2nd day of June, 2008, I caused to be served, a true and correct copy of the foregoing

OPENING COMMENTS OF PACIFICORP (U 901 E) ON ADMINISTRATIVE LAW JUDGES' RULING REQUESTING COMMENTS ON EMISSION REDUCTION MEASURES, MODELING RESULTS, AND OTHER ISSUES; INCORPORATING MATERIALS INTO THE RECORD; AND RECOMMENDING OUTLINE FOR COMMENTS

to be served on the parties on the attached service list via Electronic Mail or U.S. Mail and Overnight delivery to the parties below:

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Executed this 2nd day of June, 2008

Coordinator, Administrative Services

CERTIFICATE OF SERVICE

I hereby certify that on this 2nd day of June, 2008, I caused to be served, a true and correct copy of the foregoing OPENING COMMENTS OF PACIFICORP (U 901 E) ON ADMINISTRATIVE LAW JUDGES' RULING REQUESTING COMMENTS ON EMISSION REDUCTION MEASURES, MODELING RESULTS, AND OTHER ISSUES; INCORPORATING MATERIALS INTO THE RECORD; AND RECOMMENDING OUTLINE FOR COMMENTS to be served on the parties on the attached service list via Electronic Mail or U.S. Mail and Overnight Delivery to the parties below:

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